# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York State Aid for Veterans</td>
<td>34</td>
</tr>
<tr>
<td>New York State Regents Award for Children of Deceased or Disabled Veterans</td>
<td>34</td>
</tr>
<tr>
<td>Aid to Victims of World Trade Center Attack</td>
<td>34</td>
</tr>
<tr>
<td>Flight 587 Memorial Scholarships</td>
<td>35</td>
</tr>
<tr>
<td>Veterans’ Benefits</td>
<td>35</td>
</tr>
<tr>
<td>Vocational Rehabilitation (Chapter 31)</td>
<td>35</td>
</tr>
<tr>
<td>Post 9/11 GI Bill (Chapter 33)</td>
<td>35</td>
</tr>
<tr>
<td>New York State Vocational Educational Services for Individuals with Disabilities (ACCESS-VR)</td>
<td>36</td>
</tr>
<tr>
<td>New York State Aid to Native Americans</td>
<td>36</td>
</tr>
<tr>
<td>Regents Professional Opportunity Scholarships</td>
<td>36</td>
</tr>
<tr>
<td>Institutional Grants and Scholarships</td>
<td>37</td>
</tr>
<tr>
<td>Alumni Grant</td>
<td>37</td>
</tr>
<tr>
<td>Freshmen Special Needs Grants</td>
<td>37</td>
</tr>
<tr>
<td>International Student Grant (F-1 Status)</td>
<td>37</td>
</tr>
<tr>
<td>Student Success Grant</td>
<td>37</td>
</tr>
<tr>
<td>Retention Grants</td>
<td>37</td>
</tr>
<tr>
<td>Graduate Grants</td>
<td>37</td>
</tr>
<tr>
<td>High School Scholarships</td>
<td>38</td>
</tr>
<tr>
<td>The George Leelike Women in Technology Scholarship</td>
<td>38</td>
</tr>
<tr>
<td>Guglielmo Marconi Student Government Association Scholarship</td>
<td>38</td>
</tr>
<tr>
<td>Sophokles Nakos Memorial Scholarship</td>
<td>38</td>
</tr>
<tr>
<td>Merit Awards</td>
<td>39</td>
</tr>
<tr>
<td>Presidential Scholar Awards</td>
<td>39</td>
</tr>
<tr>
<td>Other Programs</td>
<td>39</td>
</tr>
<tr>
<td>Federal Work-Study (FWS)</td>
<td>39</td>
</tr>
<tr>
<td>TCI Pay-As-You-Study Cash Payment Plan</td>
<td>39</td>
</tr>
<tr>
<td>AmeriCorps</td>
<td>39</td>
</tr>
<tr>
<td>Student Education Loan Programs</td>
<td>40</td>
</tr>
<tr>
<td>Federal Direct Subsidized and Unsubsidized Loans</td>
<td>40</td>
</tr>
<tr>
<td>Additional Federal Direct Stafford Loan Limits For Students</td>
<td>41</td>
</tr>
<tr>
<td>Federal Direct Parent Loans (PLUS)</td>
<td>41</td>
</tr>
<tr>
<td>Academic Standards Related to Federal and State Financial Aid</td>
<td>42</td>
</tr>
<tr>
<td>Federal Academic Progress Requirements</td>
<td>42</td>
</tr>
<tr>
<td>The Qualitative Standard: Grade Point Average (GPA) Chart</td>
<td>42</td>
</tr>
<tr>
<td>The Quantitative Standard: Completion Rate-Maximum Timeframe</td>
<td>42</td>
</tr>
<tr>
<td>Special Grading Circumstances</td>
<td>42</td>
</tr>
<tr>
<td>Transfer Students</td>
<td>42</td>
</tr>
<tr>
<td>Repeated Courses</td>
<td>43</td>
</tr>
<tr>
<td>Policy for Last Semester Repeated Course(s)</td>
<td>43</td>
</tr>
<tr>
<td>Academic/Financial Aid Warning</td>
<td>43</td>
</tr>
<tr>
<td>Appeal</td>
<td>43</td>
</tr>
<tr>
<td>Academic/Financial Aid Probation</td>
<td>43</td>
</tr>
<tr>
<td>Reinstatement</td>
<td>43</td>
</tr>
<tr>
<td>Standards for TAP Satisfactory Academic Progress and Pursuit of Program</td>
<td>44</td>
</tr>
<tr>
<td>Waiver of Pursuit and Progress Standards</td>
<td>45</td>
</tr>
<tr>
<td>Waiver of 2.0 “C” Average Standard</td>
<td>45</td>
</tr>
<tr>
<td>REGISTRATION AND COURSE SCHEDULING</td>
<td>46</td>
</tr>
<tr>
<td>Late Registration</td>
<td>46</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>46</td>
</tr>
<tr>
<td>Student Transfer Policy</td>
<td>46</td>
</tr>
<tr>
<td>Class Hours and Semester Credits</td>
<td>46</td>
</tr>
<tr>
<td>Prerequisite/Corequisite Requirements</td>
<td>46</td>
</tr>
<tr>
<td>Credit Hours for a Lecture Class</td>
<td>47</td>
</tr>
<tr>
<td>Credit Hours for a Lab</td>
<td>47</td>
</tr>
<tr>
<td>Internships for Credit</td>
<td>47</td>
</tr>
<tr>
<td>Online Courses</td>
<td>47</td>
</tr>
<tr>
<td>Hybrid Courses</td>
<td>47</td>
</tr>
<tr>
<td>Directed Study</td>
<td>47</td>
</tr>
<tr>
<td>Campus Processes – Curriculum Review</td>
<td>47</td>
</tr>
<tr>
<td>Electives</td>
<td>47</td>
</tr>
<tr>
<td>College Preparatory and Supplemented Courses</td>
<td>48</td>
</tr>
<tr>
<td>Cooperative Education Courses</td>
<td>48</td>
</tr>
<tr>
<td>Auditing a Course</td>
<td>48</td>
</tr>
<tr>
<td>Advisement</td>
<td>48</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

**ACADEMIC RECORDS** ................................................................. 49
  - Grading System ........................................................................ 49
  - Incomplete Grades .................................................................. 49
  - Failing Grades .......................................................................... 49
  - Change of Grades ...................................................................... 50

**Changing Majors** ....................................................................... 50
  - Schedule Changes ...................................................................... 50
  - Degree Requirements ............................................................... 50
  - Withdrawal ................................................................................. 51
  - Presidential Scholar and Dean’s List Honors ......................... 51
  - Privacy of Student Records ....................................................... 51
  - Student Rights Under FERPA .................................................... 52
  - Transcripts ................................................................................ 53

**ACADEMIC POLICY** ................................................................. 54
  - Satisfactory Academic Progress (SAP) .................................... 54
  - Academic Warning and Probation ............................................ 54
  - Academic Dismissal ................................................................. 55
  - Financial Aid Implications ....................................................... 55
  - Academic Integrity .................................................................... 55
    - Consequences of Violating TCI’s Academic Integrity Policy ............................................................... 56
  - Attendance/Punctuality ............................................................ 57

**GRADUATION** ........................................................................... 58
  - Graduation Ceremony Clearance Requirements .................... 58
  - Receipt of Degree or Certificate ............................................. 58
  - Graduation with Honors ......................................................... 58
  - Graduation Requirements for Ability to Benefit Students ......... 58
  - Transfer Opportunities .......................................................... 59
  - College Articulation Agreements ............................................ 59

**CAREER SERVICES** .................................................................. 63
  - Mission ..................................................................................... 63
  - Job Placement Assistance ...................................................... 63
  - Resume Referral ........................................................................ 64
  - Career Fairs .............................................................................. 64
  - Career Advisement ............................................................... 64
  - Mock Interviews ...................................................................... 64
  - Resume Lab ............................................................................... 64
  - Cooperative Education/Internship Program ......................... 64

**STUDENT AFFAIRS AND STUDENT LIFE** ................................. 66
  - Student Affairs ................................................................. 66
  - Student Life .............................................................................. 66
  - Making Connections at TCI ...................................................... 66
  - Add/Drop/Withdrawal Advising ............................................ 66
  - Languages Spoken in the Office of Student Affairs ............... 66
  - Immigration Issues/Assistance for F1 Visas ......................... 66
  - Advocacy, Assistance and Referrals to Substance Abuse Counseling ...................................................... 66
  - Student Government ............................................................. 67
  - Dare To Dream/Dare To Repair ............................................... 67
  - Student Activities ................................................................. 67
  - Welcome Week ........................................................................ 67
  - Lectures and Workshops .......................................................... 67
  - Entertainment ........................................................................... 68
  - Comedy Shows ......................................................................... 68
  - Trips ...................................................................................... 68
  - Weekend Trips ........................................................................ 68
  - Finals Week .............................................................................. 68
  - Movies .................................................................................... 68
  - NBA, MLB and NFL Tickets .................................................. 68
  - Student Government Professional Development ................ 68
TABLE OF CONTENTS

Student Leadership Retreats .................................................................68
Cultural Organizations ...............................................................................68
Club Day ..................................................................................................69
   Descriptions of Clubs ..............................................................................69-70
Professional Organizations For Students ..................................................71
The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) ..........71
Electronics Technicians Association (ETA) ..................................................71
The Institute of Electrical and Electronics Engineers, Inc. (IEEE) ......................71
Psi Beta .....................................................................................................71
Tau Alpha Pi ................................................................................................71
Student Code of Conduct ...........................................................................72
Student Identification Procedure .................................................................72
No Smoking Policy ......................................................................................72
Student Attire ...............................................................................................72
Student Bill of Rights ..................................................................................72

TCI CODE OF ETHICS FOR COMPUTER SOFTWARE TECHNOLOGY .................................................................73

NON-DISCRIMINATION POLICY ........................................................................73
   Equal Opportunity Education and Employment ........................................73
   Office of Disability Services .........................................................................74
   ADA Grievance Procedures ..........................................................................74
   Informal Complaint Process ........................................................................74
   Formal Grievance ........................................................................................74

DISCIPLINARY POLICIES AND PROCEDURES .................................................................75

PROCESSES FOR APPEALS AND COMPLAINTS .................................................................75
   Procedures for Appealing Grades and Other Academic Issues ......................75
   Procedures for Non-Academic Issues ...........................................................76

MISCELLANEOUS SERVICES ........................................................................77
   Safety, Security and Emergencies ..................................................................77
   About Personal Safety ..................................................................................77
   To Call Security ...........................................................................................77
   In Case of Emergency ...................................................................................77
   Fire Drills ....................................................................................................78
   Security Report ............................................................................................78
   Inclement Weather – School Closing Information ........................................78
   Lost and Found ............................................................................................78

ACADEMIC PROGRAMS ........................................................................79
   Authorizations ............................................................................................80
   The Core Curriculum ...................................................................................81
   General Education Coursework .....................................................................81
   General Education Goals .............................................................................81
   Division of Arts and Sciences .........................................................................81
   Requirements of Accrediting Bodies ..............................................................82
   TCI’s Faculty and Academic Governance .......................................................82
   Information Literacy ......................................................................................82
   Distance Learning at TCI ..............................................................................82
   Core Courses and General Education Coursework Requirements ..................84
   Division of Business and Legal Studies ..........................................................85
   Accounting Systems Technology .................................................................85
   Business Administration (BUS) .....................................................................87
   Business Administration – Finance ...............................................................89
   Business Administration – Marketing ...........................................................90
   Business Administration – Management ......................................................91
   Office Administration and Support Services ................................................92
   Paralegal Studies ..........................................................................................94
   Security Services and Management .............................................................97
   Business and Legal Studies Course Descriptions .........................................100-107
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Engineering and Facilities Technologies</td>
<td>108</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>108</td>
</tr>
<tr>
<td>Civil and Environmental Technology</td>
<td>111</td>
</tr>
<tr>
<td>Computer Software Technology</td>
<td>113</td>
</tr>
<tr>
<td>Electronics Engineering Technology</td>
<td>115</td>
</tr>
<tr>
<td>Industrial Electronic Technology – Computer Technology Track</td>
<td>118</td>
</tr>
<tr>
<td>Basic Electronics Technology – Certificate</td>
<td>121</td>
</tr>
<tr>
<td>Industrial Electronic Technology – Electronic Security Systems</td>
<td>122</td>
</tr>
<tr>
<td>Industrial Electronic Technology – Railway Electronic Systems</td>
<td>124</td>
</tr>
<tr>
<td>Double Major: Industrial Electronics Technology – Certificate</td>
<td>126</td>
</tr>
<tr>
<td>Networking Technology</td>
<td>129</td>
</tr>
<tr>
<td>Robotics and Automation Technology</td>
<td>131</td>
</tr>
<tr>
<td>Engineering and Information Course Descriptions</td>
<td>133-149</td>
</tr>
<tr>
<td>Facilities Management Technology</td>
<td>150</td>
</tr>
<tr>
<td>Facilities Technology – Certificate</td>
<td>152</td>
</tr>
<tr>
<td>Heating, Ventilation, Air Conditioning and Refrigeration Technology</td>
<td>153</td>
</tr>
<tr>
<td>Air Conditioning and Refrigeration Technology – Certificate</td>
<td>155</td>
</tr>
<tr>
<td>Facilities Technologies Course Descriptions</td>
<td>156-161</td>
</tr>
<tr>
<td>Division of Health Sciences and Technologies</td>
<td>162</td>
</tr>
<tr>
<td>Health Information Technology</td>
<td>162</td>
</tr>
<tr>
<td>Human Services</td>
<td>164</td>
</tr>
<tr>
<td>Ophthalmic Dispensing</td>
<td>167</td>
</tr>
<tr>
<td>Health Sciences and Technologies Course Descriptions</td>
<td>170-175</td>
</tr>
<tr>
<td>Division of Arts and Sciences</td>
<td>176</td>
</tr>
<tr>
<td>Digital Media Arts Technology</td>
<td>178</td>
</tr>
<tr>
<td>Digital Media Arts Course Descriptions</td>
<td>180-182</td>
</tr>
<tr>
<td>Arts and Sciences Course Descriptions</td>
<td>183-188</td>
</tr>
<tr>
<td>College Preparatory Program Courses</td>
<td>183</td>
</tr>
<tr>
<td>Humanities Courses</td>
<td>183</td>
</tr>
<tr>
<td>Natural Sciences Courses</td>
<td>186</td>
</tr>
<tr>
<td>Social Sciences Courses</td>
<td>186</td>
</tr>
<tr>
<td>Mathematics and Technology Courses</td>
<td>188</td>
</tr>
<tr>
<td>English as a Second Language Department</td>
<td>189</td>
</tr>
<tr>
<td>ESL Placement</td>
<td>189</td>
</tr>
<tr>
<td>Program Goals and Objectives</td>
<td>189</td>
</tr>
<tr>
<td>ESL Sequencing</td>
<td>190</td>
</tr>
<tr>
<td>English as a Second Language Course Descriptions</td>
<td>191-193</td>
</tr>
<tr>
<td>Certificate Preparation and Career Training Courses</td>
<td>194-195</td>
</tr>
<tr>
<td>FACULTY</td>
<td>197</td>
</tr>
<tr>
<td>Business and Legal Studies Full-time Faculty</td>
<td>197</td>
</tr>
<tr>
<td>Business and Legal Studies Adjunct Faculty</td>
<td>198</td>
</tr>
<tr>
<td>Engineering and Facilities Technologies Full-time Faculty</td>
<td>199; 200-201; 203-204</td>
</tr>
<tr>
<td>Engineering and Facilities Technologies Adjunct Faculty</td>
<td>199; 202; 204-205</td>
</tr>
<tr>
<td>Health Sciences and Technologies Full-time Faculty</td>
<td>206</td>
</tr>
<tr>
<td>Health Sciences and Technologies Adjunct Faculty</td>
<td>207</td>
</tr>
<tr>
<td>Digital Media Arts Full-time Faculty</td>
<td>208</td>
</tr>
<tr>
<td>Digital Media Arts Adjunct Faculty</td>
<td>208</td>
</tr>
<tr>
<td>Arts and Sciences Full-time Faculty</td>
<td>209</td>
</tr>
<tr>
<td>Arts and Sciences Adjunct Faculty</td>
<td>211</td>
</tr>
<tr>
<td>SENIOR ADMINISTRATION ORGANIZATIONAL CHART</td>
<td>212</td>
</tr>
<tr>
<td>ADMINISTRATION</td>
<td>213-220</td>
</tr>
<tr>
<td>BOARD OF DIRECTORS</td>
<td>221</td>
</tr>
<tr>
<td>COUNCILS &amp; COMMITTEES</td>
<td>222-226</td>
</tr>
<tr>
<td>INDEX</td>
<td>227-230</td>
</tr>
</tbody>
</table>
For degree programs, TCI’s academic standard calendar consists of three 14-week semesters – Fall, Spring and Summer. Students can begin their studies at the start of any of these three semesters, and enroll until all degree requirements are completed. The calendars for non-degree programs, which may vary from the standard calendar, will be made available whenever such programs are offered.

**FALL SEMESTER 2015**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 8</td>
<td>Tuesday</td>
<td>Orientation for Freshman and Transfer Students</td>
</tr>
<tr>
<td>September 9</td>
<td>Wednesday</td>
<td>First Day of Classes</td>
</tr>
<tr>
<td>September 15</td>
<td>Tuesday</td>
<td>Last Day to Add/Drop Classes &amp; Last Day to Officially Withdraw Without Mandatory Tuition/Fees Charges</td>
</tr>
<tr>
<td>October 12</td>
<td>Monday</td>
<td>College Closed (Columbus Day)</td>
</tr>
<tr>
<td>October 14</td>
<td>Wednesday</td>
<td>All Classes Follow a Monday Schedule</td>
</tr>
<tr>
<td>October 26-October 31</td>
<td>Wednesday</td>
<td>Midterm Exams Week</td>
</tr>
<tr>
<td>November 2</td>
<td>Monday</td>
<td>48 Hours – Midterm Exam Grades Are Due</td>
</tr>
<tr>
<td>November 9</td>
<td>Monday</td>
<td>Last Day to Officially Withdraw Without Academic Penalty</td>
</tr>
<tr>
<td>November 26, 27, 28</td>
<td>Thursday, Friday, Saturday</td>
<td>College Closed (Thanksgiving)</td>
</tr>
<tr>
<td>December 14-December 19</td>
<td></td>
<td>Final Exams Week</td>
</tr>
<tr>
<td>December 19</td>
<td>Saturday</td>
<td>Last Day of Semester</td>
</tr>
<tr>
<td>December 22*</td>
<td>Monday</td>
<td>48 Hours – Final Exams Grades Are Due</td>
</tr>
</tbody>
</table>

*Additional day to be used in case of college closing due to inclement weather or other emergency.*

**WINTER BREAK   December 21, 2015 – January 3, 2016**

**SPRING SEMESTER 2016**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 14</td>
<td>Thursday</td>
<td>Orientation for Freshman and Transfer Students</td>
</tr>
<tr>
<td>January 15</td>
<td>Friday</td>
<td>First Day of Classes</td>
</tr>
<tr>
<td>January 18</td>
<td>Monday</td>
<td>College Closed (MLK Birthday)</td>
</tr>
<tr>
<td>January 21</td>
<td>Thursday</td>
<td>Last Day to Add/Drop Classes &amp; Last Day to Officially Withdraw Without Mandatory Tuition/Fees Charges</td>
</tr>
<tr>
<td>February 15</td>
<td>Monday</td>
<td>College Closed (Presidents Day)</td>
</tr>
<tr>
<td>February 16</td>
<td>Tuesday</td>
<td>All Classes Follow a Monday Schedule</td>
</tr>
<tr>
<td>March 7-March 12</td>
<td></td>
<td>Midterm Exams Week</td>
</tr>
<tr>
<td>March 14</td>
<td>Monday</td>
<td>48 Hours – Midterm Exam Grades Are Due</td>
</tr>
</tbody>
</table>
COLLEGE CALENDAR

March 15      Wednesday       Last Day to Officially Withdraw Without Academic Penalty
March 25-March 26  Friday, Saturday  College Closed (Good Friday, Saturday)
April 18-April 23  Tuesday       Final Exams Week
April 26

SUMMER SEMESTER 2016

May 5        Thursday         Orientation for Freshman and Transfer Students
May 6        Friday           First Day of Classes
May 12       Thursday         Last Day to Add/Drop Classes & Last Day to Officially Withdraw Without Mandatory Tuition/Fee Charges
May 30       Monday          College Closed (Memorial Day)
June 3       Friday          All Classes Follow a Monday Schedule
June 20-June 25  Tuesday  Midterm Exams Week
June 27  Tuesday       48 Hours – Midterm Exam Grades Are Due
July 2-4   Saturday, Sunday, Monday College Closed (Independence Day)
July 5       Tuesday         Last Day To Officially Withdraw Without Academic Penalty
August 8-August 13  Monday         Final Exams Week
August 15  Monday         Last Day of Classes

FALL SEMESTER 2016

September 7  Wednesday       Orientation for Freshman and Transfer Students
September 8  Thursday        First Day of Classes
September 14  Wednesday      Last Day to Add/Drop Classes & Last Day to Officially Withdraw Without Mandatory Tuition/Fees Charges
October 10    Monday          College Closed (Columbus Day)
October 31- November 5  Monday       Midterm Exams Week
November 7    Monday          48 Hours – Midterm Exam Grades Are Due
November 7    Monday          Last Day to Officially Withdraw Without Academic Penalty
## COLLEGE CALENDAR

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Days</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 24, 25, 26</td>
<td>Thursday, Friday, Saturday</td>
<td>College Closed (Thanksgiving)</td>
</tr>
<tr>
<td>December 12-December 17</td>
<td></td>
<td>Final Exams Week</td>
</tr>
<tr>
<td>December 19</td>
<td>Monday</td>
<td>Last Day of Semester</td>
</tr>
<tr>
<td>December 20*</td>
<td>Tuesday</td>
<td></td>
</tr>
<tr>
<td>December 21</td>
<td>Wednesday</td>
<td>48 Hours – Final Exams Grades Are Due</td>
</tr>
</tbody>
</table>

*Additional day to be used in case of college closing due to inclement weather or other emergency.

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**WINTER BREAK**  December 20, 2016 – January 2, 2017

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### Accuracy Disclaimer and Right to Change

This catalog is a general information publication only. The provisions within do not constitute a contract, expressed or implied, between any applicant, student or faculty member and Technical Career Institutes. TCI reserves the right to make changes of any nature in the academic programs and requirements of the College. All programs, courses and requirements are subject to termination or change without advance notice. In addition, the College has made every effort to make the material presented in this catalog timely and accurate. This does not, however, preclude the possibility of undetected error. Critical points of fact should therefore be considered subject to confirmation by the appropriate office or division of the College.

TCI publishes program and policy changes on its website at [www.tcicollege.edu/catalog.htm](http://www.tcicollege.edu/catalog.htm).
Technical Career Institutes, an urban college, offers diverse groups preparation for careers in technology and related fields by providing state of the industry curricula which blends scientific theory with hands-on practice.

This mission is inspired by a one hundred year heritage of scientific and technological education that began with the Nobel Prize winning founder Guglielmo Marconi. It was continued during the school’s years as the RCA Institutes, under the guidance of the eminent David Sarnoff, and is now carried forward by Technical Career Institutes, Inc., commonly known as TCI College.

MISSION STATEMENT

INSTITUTIONAL GOALS

Student Learning
By studying curricula which are current to the field and include theory and hands-on applications, students will be well prepared for entry into their chosen career or for further education.

Student Services
Students with different backgrounds and needs will benefit from academic, financial, personal and career support services as well as extra-curricular activities, such as clubs, campus events, and student government.

Faculty, Staff and Management
Employees will be hired, retained and advanced on the basis of their knowledge, professionalism, and continuing development.

Facilities
Facilities will be clean, well-designed, and in good working order, with appropriate space, furniture and equipment to support College functions and services.

Information Technology and Equipment
Students, faculty, and staff will have access to up-to-date computers, equipment and industry-standard software, and receive the training required to use this technology effectively.
TCI CORE VALUES

Academic Excellence
We strive to provide a high quality education to help students realize their full potential through instruction and academic support services. We believe that successful relationships between engaged learners and dedicated faculty and staff are critical for fostering academic excellence.

Student Centeredness
Our policies, procedures, and professional conduct demonstrate our commitment to students. Students are our top priority, and we are here to ensure their success.

Credibility and Integrity
We operate with integrity and earn enduring credibility with others, which we believe is essential to long-term relationships.

Institutional Effectiveness
We must continuously improve and innovate in order to sustain and advance the College, as well as help us meet the needs of the populations we serve.

Team
We value and care about each other, operate with a generosity of spirit, and have fun in the process of working together. To maximize our collective impact, we inspire, challenge, and support each other to be our best.

Courage
We must be brave and do what is right regardless of our fears, the difficulties, or the consequences.

Accountability
We do what we say we are going to do when we say we are going to do it. We earn the right to hold others to a high level of accountability by being accountable to ourselves, our constituencies, and our partners.

Community
We embrace diversity, show respect and compassion for others, and treat one another with fairness. Moreover, we believe in empowering diverse communities through education and other means of civic engagement.
STRATEGIC PLAN GOALS FOR 2016-2018

STRATEGIC PLAN GOALS: 2016 - 2018

- Ensure that all graduates are job-ready, marketable, and capable of sustained employment.

- Increase student retention and graduation rates.

- Improve campus culture and college life.

- Improve hybrid and online course offerings, and gain approval for online programs.

- Achieve Baccalaureate status.

- Explore new markets for recruiting students.

- Enhance the integration of technology to support and improve student learning.

- Improve the student experience through professional development for faculty and staff.

- Determine the optimal location and facility for the College.

The following chart shows the relationship between the Institutional Goals and the Strategic Plan Goals:

<table>
<thead>
<tr>
<th>INSTITUTIONAL GOAL AREA</th>
<th>STRATEGIC PLAN GOAL</th>
</tr>
</thead>
</table>
| Student Learning               | - Ensure that all graduates are job-ready, marketable, and capable of sustained employment.  
                                | - Increase student retention and graduation rates.                                      |
|                                | - Improve hybrid and online course offerings, and gain approval for online programs.   |
|                                | - Achieve Baccalaureate status.                                                     |
|                                | - Explore new markets for recruiting students.                                       |
| Student Services               | - Improve campus culture and college life.                                           |
| Faculty, Staff, and Management | - Improve the student experience through professional development for faculty and staff.|
| Facilities                     | - Determine the optimal locations and facilities for the College.                   |
| Information Technology and Equipment | - Enhance the integration of technology to support and improve student learning.   |
TCI has the unique distinction of being founded by a Nobel Prize winner, Guglielmo Marconi, who was the co-winner of the Nobel Prize in Physics in 1909. That same year, he established the Marconi Institute in New York City to train operators for his new means of communications, “wireless telegraphy,” which was to evolve into radio. The founding of the college by a celebrated scientist remains a fundamental part of the College’s identity. The focus on technology continues to be the core of the institution’s mission.

Following World War I, the United States Navy moved to have wireless communications within the United States brought under American control for reasons of national security. Marconi was not an American citizen and his American companies were actually foreign owned by British Marconi. At the urging of the Navy, General Electric bought a controlling interest in Marconi’s American holdings and reorganized them into a new company, one which was to become a giant of American industry, the Radio Corporation of America (RCA). The Marconi Institute training school was included in the takeover. It was renamed the Radio Institute of America in 1919 and in 1929 became the RCA Institutes.

The Managing Director of the school was David Sarnoff, who had studied and taught at the Marconi Institute. He quickly moved up the corporate ladder at RCA and became a legendary figure in the communications industry, co-founding NBC in 1926 and later pioneering the development of commercial television. TCI’s half century under Sarnoff’s direction is also part of its identity.

The RCA Institutes did not have degree-granting authority until its last two years, receiving accreditation for the awarding of Associate’s Degrees from the New York State Board of Regents in 1972. However, as a trade school, it offered a first-rate education in technology to a mostly immigrant and working-class student population, and was so well respected that some of those who completed its program of study were able to continue their education at elite institutions like MIT and UCLA.

In 1974, the school became independent of the RCA Company and was renamed Technical Career Institutes, Inc., commonly known as TCI College. It has continued to provide a quality education to individuals seeking careers in technology and related fields, as well as those wishing to pursue a baccalaureate degree by transferring after graduation to a senior college.

As the second largest two-year private college in the New York Metropolitan Area, TCI provides 14 Associate Degree programs in day and evening sessions to over 3,000 students, which includes both traditional college-age and older students. For the past several years, an annual survey published by Community College Week, the independent newspaper of community, technical and junior colleges, has ranked TCI among the top three colleges nationally in the number of engineering-related two-year degrees conferred.

Now in its second century, TCI is proud to continue its long tradition of providing an education that gives students both fundamental theoretical knowledge and extensive hands-on practice.
TCI HAS DUAL ACCREDITATION

TCI is accredited by both the New York State Board of Regents and the Middle States Commission on Higher Education. Very few colleges have this distinction.

TCI has been accredited since 1972, when it first became a degree granting institution, by the New York State Board of Regents, 89 Washington Avenue, Albany, NY 12234, (518) 474-5889. The New York State Education Department regularly monitors the College to ensure that it is in compliance with the Board of Regents' rigorous standards for accreditation.

Regional accreditation was attained in 2005 when TCI’s application was approved, after a meticulous review of all aspects of the college, by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104-2680, (267) 284-5000.

The Middle States Commission on Higher Education is the regional accrediting agency for institutions of higher education in Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, and the U.S. Virgin Islands. It is recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation. The Commission is a leader in promoting and ensuring quality and improvement in higher education and in advancing educational excellence.

The accreditations by the New York State Board of Regents and the Middle States Commission on Higher Education convey to other institutions of higher education and to the general public that TCI is carrying out well-defined goals and objectives, guided by an appropriate mission for an educational institution.

A third accreditation is for a specific major, Electronics Engineering Technology (EET). This program is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD, 21202-4012, (410) 347-7700.

A fourth accreditation is for Ophthalmic Dispensing (OPT). This program is accredited by the Commission on Opticianry Accreditation, Debra White, Director of Accreditation, P.O. Box 592, Canton, NY 13617, Director@coaccreditation.com, (703) 468-0566.

A fifth accreditation is for the Learning Center. The tutoring facility and its professional tutors are accredited by the College Reading and Learning Association (CRLA). Karen S. Mathews, President, Texas A & M University 118 Hotard Hall 4230 TAMU, K – Mathews@tamu.edu, (979) 845-2724.

A provisional accreditation for the Facilities Management Technology Program has been granted by the International Facilities Management Association (IFMA), 1 East Greenway Plaza, Suite 1100, Houston, TX, 77046, (713) 623-4362.
TCI’s main building is located at 320 West 31st Street, directly across from Manhattan’s General Post Office and diagonally opposite Madison Square Garden and Penn Station. The telephone number is (212) 594-4000.

The College is conveniently situated in the heart of midtown Manhattan, and can be reached by New York City subways and buses, as well as commuter rail lines and buses from outlying areas. The A, B, C, D, E, F, N, Q, R and 1, 2, 3 and 9 subway lines all have stations within walking distance of the College. The New Jersey Transit, PATH, Long Island Railroad and Metro-North rail lines are also readily accessible. New York’s major commuter bus station, the Port Authority Bus Terminal, is a ten-minute walk (or one subway stop) away.

The four-story main building occupies approximately 109,000 square feet of space, and contains 58 air conditioned classrooms, including 19 computer laboratories, 7 electronics laboratories, one ESL listening laboratory, 10 HVAC & FMT laboratories, 2 Automotive laboratories and 1 Automotive garage, 3 OPT Labs, one Physics laboratory and one Biology laboratory. The facility is accessible to students with physical disabilities.

Lecture and laboratory courses have an average class size of 20 students. This enables TCI’s instructors to assist students on an individual basis. Each laboratory is equipped with up-to-date computer hardware and software, machinery, tools and electronic test apparatus, to give students the hands-on experience they need to succeed. The main building also houses the Main Library with two computer rooms, wi-fi access, and an extensive legal collection.
COMPUTER LABORATORIES

TCI maintains more than 600 Intel Pentium-class personal computers and other academic computing equipment and facilities to support its programs. Computers are available in the libraries, Learning Center, and in 18 computer laboratories throughout the College. All of these personal computers have Microsoft Windows 8.1 and/or Apple OS Snow Leopard, Microsoft Office Professional (including Microsoft Word, Microsoft Excel, Microsoft Access and Microsoft Powerpoint) and other curriculum-specific software installed. Each computer has access to Hewlett Packard LaserJet printers located in the computer laboratories.

The College is committed to creating an environment in which students learn relevant computer and telecommunications technology skills, and in which teaching and learning are supported by these technologies. As such, all of the classrooms are networked, including the libraries and open labs. Internet access is provided to the libraries, Learning Center, and all computer laboratories.

To facilitate TCI’s commitment to the use of computers and associated technologies, the College maintains a full service computer support staff, a computer help desk and an in-service work-study program for student technician interns.

At TCI, computer education extends to everyone – students, faculty and administrators. The faculty has access to numerous computers that enable them to learn new software and research new technologies as well as participate in regularly scheduled faculty professional development activities.

Electronics Laboratories

TCI maintains 8 electronics laboratories in support of its electronics curricula. Each of these laboratories is equipped with oscilloscopes, digital multimeters, function generators and variable power supplies. In addition, one of the laboratories is outfitted with specialized telecommunications equipment and connected to a large satellite dish affixed to the roof of the main building.

English as a Second Language (ESL) Laboratory

More than one-third of TCI’s student body speaks a primary language other than English. To address their needs, TCI has developed an interactive ESL laboratory that assists students in rapidly developing practical language skills.

LEARNING CENTER

The tutoring facility and its professional tutors are accredited by the College Reading and Learning Association (CRLA). Karen S. Mathews, President, Texas A & M University 118 Hotard Hall 4230 TAMU, K – Mathews@tamu.edu, (979) 845-2724.

Main Campus Learning Center

TCI offers extensive, free tutorial services at the Learning Center under the direction of the Provost and the Director of the Learning Center. Students receive personal attention with academic and related problems.

In addition to a staff of knowledgeable full-time tutors, the Learning Center employs peer tutors and provides an extensive open laboratory schedule. The Center offers small group, as well as individual instruction to support all TCI courses. Special attention is paid to student learning styles and individual needs. The Center provides topical workshops on various topics; teaches students organizational, study and test-taking skills; and prepares students for quizzes and examinations in their major. Upon an instructor’s request, the Learning Center also administers make-up examinations.

The Center also maintains thirteen computer stations equipped with tutorial software packages that students can use to reinforce their educational skills.

The Learning Center, located in Room C-7 of the main building, is open Monday through Friday from 10 a.m.-6 p.m., and Saturdays from 10 a.m.-3 p.m. Open labs are also available Monday through Saturday.
TCI’s library is located on the fourth floor of the 31st Street location. The library is open from 9 a.m. to 8 p.m., Monday through Thursday, 10 a.m. to 6 p.m. on Friday, and 10 a.m. to 3 p.m. on Saturday. The TCI library is staffed by two professional librarians, as well as weekend librarians, clerical workers, and student workers.

Library material is available for student and faculty use and collections are designed to support the programs taught. In addition to a core collection designed to support all of the subjects taught at the college, TCI has a growing number of non-technical and general interest titles, including texts suitable for ESL students to read. Standard reference tools, such as encyclopedias, dictionaries, manuals, and handbooks are also available. In all, the library houses close to 20,000 print titles, approximately 150 print periodicals and newspapers, as well as 60 periodical databases. The library also has additional material in different formats, such as CD-ROMs, DVDs, videotapes, and audio cassettes. For paralegal students, the library maintains a separate law collection featuring subscriptions to New York State statutes and cases, as well as law encyclopedias and law reviews.

The library houses subscriptions to databases providing full-text, electronic versions of articles from thousands of magazines, journals, newspapers, research papers, literary analyses, and other materials; as well as access to image collections and company profiles. Access to electronic content is delivered through several database services including books 24x7, which provides online access to over 25,000 electronic books. In addition to this, an extra 3,470 downloadable electronic books are available from EBSCOhost to read on or offline, via short-term loans. Members of the TCI community can also stay abreast of current publications in their chosen fields by utilizing library subscriptions to Books in Review and Books in Print databases.

The library’s electronic services are supported by 38 computers, as well as wireless access. TCI students can also easily access the electronic library resources off campus via login and password. Both the library’s online catalog (OPAC) and the Library website (LibGuides) are accessible from the TCI College website. The online library catalog contains collection records and links to other information during regular library hours, which is useful to students, such as full-text databases, research websites, tutorials, etc. From the Library website, students can access pathfinders to direct them to unique library materials best suited to each major and course of study. Additionally, students now have access to real-time chat with a reference librarian from Monday through Friday during regular library hours.

The library staff collaborates with faculty in teaching students – in class and individually – the skills necessary for effective use of information. TCI librarians may also facilitate student use of resources provided by other colleges in the New York metropolitan area, in the event existing library resources are not sufficient through the referral card system provided by the Metropolitan New York Library Council (METRO).

In keeping with TCI’s increasing use of online and hybrid courses, the library has created a Blackboard page with tutorials and videos. The first semester library instruction classes have also been uploaded to Blackboard. The Introduction to Major students can view these videos at their own time. The library now has its own Facebook and Twitter accounts through which we hope to interact with students more.

**STUDENT LOUNGE**

Over 3,000 square feet on TCI’s main floor and concourse have been set aside as lounge areas for student use. In this informal environment, students can relax, study, read newspapers and enjoy beverages and snacks from the vending machines. In addition, the department of Student Activities and the Student Government Association often sponsor both social and intellectual events in the lounge.
Classes for all programs are scheduled Monday through Friday from 8:00 a.m. to 10:00 p.m. and Saturday from 9:00 a.m. to 4:00 p.m.

TCI’s Office of Admissions is open during the following hours to assist prospective students who wish to learn more about the College:

Monday through Thursday         9:00 a.m. - 8:00 p.m.
Friday                                          9:00 a.m. - 6:00 p.m.

Admissions representatives are also available on selected Saturdays. Contact the Office of Admissions toll free at 866-TCI-COLLEGE or (866) 824-2655 for more information.

Candidates for admission must meet one of the following criteria:

• the applicant has a high school diploma from a United States secondary school or an equivalent credential from a foreign country;

• the applicant has a General Education Development (GED) diploma.

In rare instances, foreign high school graduates whose records are not obtainable may be admitted on the basis of examinations administered by the College which show the ability of such students to succeed in college-level studies. In addition, admission of these applicants cannot occur until documentation is obtained that indicates that a reasonable attempt has been made by the student to secure the secondary school records in question.

ADMISSIONS PROCEDURES

An application for admission may be obtained by calling or visiting the Office of Admissions. The application should be completed by the prospective student, and returned to the Office of Admissions either in person or by mail, prior to the beginning of the semester for which admission is desired. Application may also be made via the Internet by visiting TCI’s website at www.tcicollege.edu.

In addition, applicants from the local area must visit the College for an interview and an evaluation to determine admissability and placement in first semester courses.

These procedures and requirements may be waived for students enrolled in non-degree programs.

OFFICE OF CREDENTIALS VERIFICATION AND ASSESSMENT

The Office of Credentials Verification and Assessment, located in Room 143 of the main building, is open from 9:30 a.m. to 8:00 p.m. Monday through Thursday; from 11:00 a.m. to 6:00 p.m. on Friday; and from 10:00 a.m. to 4:00 p.m. on selected Saturdays. This office is responsible for assisting applicants with obtaining the documents required for admission and administering the College’s admission/placement examinations.
ADMISSION AND ACADEMIC PLACEMENT

Admission to the college and/or placement in first semester courses is primarily based upon examinations administered by the Office of Credentials Verification and Assessment. Prior educational experience, and an entrance interview conducted by the Office of Student Affairs may also be considered. Requirements vary by program of study. The scores on these examinations also assist the College in determining if placement into college preparatory or supplemented courses in English, English as a Second Language (ESL) or mathematics are required. Preparatory and supplemented courses require additional hours of instruction to help ensure student success and may increase the amount of time required to complete a program of study.

PART-TIME ADMISSIONS

Students registering for fewer than 12 credits/preparatory hours in a particular semester are considered part-time students. Admissions requirements for part-time students are the same as those for full-time students, but financial aid opportunities differ substantially. For information regarding part-time financial aid eligibility, prospective part-time students should consult the Student Financial Services Office in Room 139 of the main building before enrolling.

NOTE: The scheduling of course offerings may vary among majors in accord with the patterns of student enrollment. Some major specific classes will be scheduled for Evening and Saturday sessions only, while others may meet only between hours of 9am to 5pm. Also, classes may be canceled due to insufficient enrollment. Course offerings can be confirmed in the Registrar’s Office at the time of Registration.

EVENING ATTENDANCE

Students may complete their studies by attending classes in the evening. TCI offers a comprehensive selection of courses under the direction of the Dean of Academic Administration. However, because TCI degree programs exceed sixty credits and evening hours are less extensive than day hours, some students may need to attend more than four semesters to complete their degree requirements.

NON-MATRICULATION POLICY

Students may enter TCI on a non-matriculated basis and register for individual courses without seeking a degree or certificate. Students seeking non-matriculated status must provide evidence of high school graduation or its equivalent. Acceptance into individual courses is based on an interview with the appropriate divisional dean or chairperson, who will assess whether course prerequisites have been satisfied. These procedures and requirements may be waived for students enrolled in non-degree programs. Course completion will be certified through an official transcript, and credits completed may be applied toward a credential should the student elect to matriculate into a degree or certificate program. Non-matriculated students are not eligible for any type of federal or state financial aid. Should a non-matriculated student decide at a later date to matriculate, he or she must satisfy all admissions requirements.

CAMPUS VISITS, OPEN HOUSES, WORKSHOPS AND SPECIAL EVENTS

Visiting the campus is the best way to gain a full understanding of what the College has to offer. A meeting with an admissions representative may be arranged by calling toll free (866) TCI-COLLEGE or (866) 824-2655.

TCI hosts a number of open houses, hands-on workshops and special events each semester. The programs provide prospective students with a unique opportunity to learn about the College and its programs first-hand. Students can attend presentations and hands-on demonstrations for each of TCI’s degree programs; meet with currently enrolled students, faculty and college administrators; and obtain information on admissions, financial assistance and career services. By attending one of TCI’s special events, a prospective student is able to make well-informed decisions regarding future education and career plans.

Please contact the Office of Admissions or consult the College’s website at www.tcicollege.edu for specific dates and times.
ORIENTATION

All newly admitted students, both freshmen and transfers, are required to attend Orientation, an important first step towards academic success. This requirement may be waived for students enrolled in non-degree programs. Orientation is held the day before the start of classes each semester, with sessions for both day and evening students. It provides entering students with an introduction to the TCI community and culture and the opportunity to meet faculty, administrators, and classmates. Students learn from college representatives about the wide variety of TCI support services and resources, and are offered practical suggestions for how to best succeed in their college careers. The times and locations of the Orientation sessions are distributed to students during the registration process.

SPECIAL ADMISSIONS REQUIREMENTS AND PROCEDURES

Transfer Policy

TCI’s transfer policy allows students to obtain credit or an exemption, based on previous education at an accredited institution, the military, examination, certification, or work experience. The evaluation of these transfer credits and/or exemption exams is done by the Registrar’s office in collaboration with the Academic Dean and/or Chair of the program.

Applying for Transfer Credit

Applicants who have previously attended an accredited or recognized post-secondary institution may be able to transfer comparable courses to TCI. **Applicants must indicate their desire to be considered for transfer credit on the Application for Admission.** Transfer credit will be evaluated once a copy of the previous college transcripts are received.* It is strongly recommended that the prospective student come with official transcripts in order to speed up the evaluation process.

If the student is not able to obtain the transcripts, TCI will obtain official transcripts for new applicants educated in the United States as long as the college Transcript Request form is completed in the Office of Credentials Verification and Assessment. This will delay the evaluation process and the transfer of credits.

Those educated outside of the United States must provide official academic records and course descriptions, translated into English where necessary, and evaluated by a TCI approved credential evaluation services (World Education Services), for U.S. College Equivalency.

Students who wish to provide a military transcript may go to: [https://jst.doded.mil](https://jst.doded.mil) and make the request online. TCI will then be able to access the transcripts directly and quickly.

Transfer credit will not be approved or posted to the student’s academic record until official transcripts have been received. If there is a question with regard to the transferability, a course description and/or syllabus will be obtained and used as part of the evaluation process. We may also refer to College Source, an online database of digital college catalogs. Applicants are encouraged to complete the transfer credit evaluation process prior to the registration to avoid potential scheduling, course sequencing, and financial aid issues.
Transfer credit will be considered for individual courses in which a grade of C or better has been achieved. Courses may be eligible for transfer if the course was taken within the following time periods:

- Social Science/Humanities – 10 years
- Math/Science – 5 years
- Technology – 5 years

Any exceptions to these guidelines will be made by the divisional dean or chairperson. For example, students who have completed an English composition and/or college math course from an accredited institution with a grade of C or better may be exempted from the remedial course requirement. If the student took English composition or math course more than five years ago, but scores high enough on the Accuplacer exam to be placed in a credit bearing math or English course, then the transfer credit will be accepted.

**Applying for Exemptions based on work experience, certifications, or recommendations from the Dean or Chair**

Exemption from a course at TCI may be granted on the basis of life/work experience, or knowledge gained from professional development or training programs. This evaluation is conducted by the divisional dean. Relevant documentation, such as a letter from the employer with a job description, or verifiable certifications from nationally recognized organizations such as Microsoft or CISCO, will be required as part of the evaluation process. Students may be granted exemption for up to two courses and the corresponding credits associated with those two courses.

**Applying for Exemptions based on examinations**

Exemption from a course at TCI may be granted for certain courses only, based on a TCI exemption exam. Exemption exams are available for the Keyboarding and Introduction to Computers courses. If you wish to be considered for an exemption in a particular subject, speak to your divisional dean. Exemption from a course may also be granted based on College Level Examination Program (CLEP), the Advanced Placement program (AP) and other examinations based on the students’ program of study.

*Note: Official transcripts should be submitted in a signed, sealed envelope. Opened envelopes will not be accepted.*
Residency Requirement

Students who transfer into the College with advanced standing must, in order to earn a degree or certificate, satisfactorily complete at least one-half of their selected program, including the final semester, at TCI. This requirement also applies to students pursuing cooperative education programs that have been arranged between TCI and employers.

International Applicants

TCI is authorized under Federal law and the United States Department of Justice to enroll non-immigrant alien students (F-1 Visa). All such applicants must have attained the equivalent of a U.S. high school diploma, as determined by the College. An international candidate for admission must submit the College’s standard application, accompanied by:

1. Official transcripts of all previous secondary and post-secondary education must be sent directly to the Office of International Admission, TCI College, 320 West 31st Street, Room 101, New York, NY 10001. Official translation in U.S. will be required.

2. International applicants from outside of the New York City metropolitan area must have achieved a score of 450 or better on the Test of English as a Foreign Language (TOEFL). An official TOEFL score report must be sent directly to the International Student Advisor at TCI. For specific course placement and scheduling, the College will reassess English language skills upon the student’s arrival.

International applicants who reside in the local area, or those who are able to visit the campus, will have their English language proficiency evaluated on-site prior to admission.

3. An AFFIDAVIT of SUPPORT from sponsor declaring his/her financial ability to finance your education including tuition, related school supplies, living expenses while attending TCI. If you are financing your education with your personal funds, you do not require a sponsor. Sponsors currently in the U.S. must use Affidavit of Support, FORM I-134.

4. An official bank statement signed by a Bank Official stating the applicant’s current balance in a savings or checking account in U.S. currency.

5. A deposit equal to 75% of the the first semester tuition plus the Application Non-refundable fee of $100.00. Tuition deposits are refundable due to cancellation or other Consular reasons.

The International Student Advisor in the Office of Student Affairs, Room 101, is responsible for reviewing all applications for the USCIS I-20-AB. In order to be considered for admission to the College, international applicants must submit all required documents in a timely manner. Late applications will be considered for admission for the following semester.

Estimated educational expenses for a full-time international student for one academic year (i.e., two semesters) include:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
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</tr>
<tr>
<td>Off-campus Room &amp; Board</td>
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<td>Books</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$26,994</strong></td>
</tr>
</tbody>
</table>

Immunization
Measles, Mumps and Rubella (MMR)

New York State Public Health Law 2165, enacted in June 1989, requires that all students attending an institution of post-secondary education demonstrate immunity against measles, mumps and rubella. In accordance with the requirements of the legislation and beginning August 1991 and thereafter, the College shall require immunization for all full and part-time students born on or after January 1, 1957.

Such proof shall consist of evidence of one of the following:

1. Proof of vaccination with two doses of live measles virus vaccine and one dose each of live mumps and live rubella virus vaccines.
2. Results of a blood test from a physician showing immunity to measles, mumps and rubella.
3. Documentation from a physician showing a history of measles or mumps. Please note that a history of rubella does not constitute acceptable proof of immunity.

Those students who do not provide evidence of full immunity, as outlined above, will be administered a Measles, Mumps and Rubella (MMR) vaccination as a condition for registering for classes. A one-time fee of $45 will be charged to the student’s account. Those receiving their first MMR vaccination at registration will be provided with the opportunity to receive the second vaccination at a point approximately 30 days into their first semester of study at the College. Those who have not complied with this immunization requirement will be dismissed from the College. Readmission to the College will require proof of full MMR immunity.

Meningococcal Meningitis

New York State Public Health Law 2167, enacted on August 15, 2003, requires all colleges and universities to distribute information about meningococcal meningitis to students enrolled for at least six semester hours of credit and maintain a record of whether the student has, will or chooses not to receive a vaccination.

This information must be on file at the College within the first 30 days of the semester. Questions or further information about these New York State Public Health requirements should be directed to the Office of Credentials Verification and Assessment in Room 143.

Readmission

Students who have withdrawn from TCI and desire to return should visit the Registrar’s Office in Room 145 of the main building. The College will review academic and financial eligibility upon receiving the Application for Readmission.
GRADUATION RATE

The following information is provided in accordance with the federal Student Right-to-Know reporting and disclosure requirements, as well as the New York State Regents Accreditation Standards. Graduation rate information, by program, can also be found at http://www.tciccollege.edu/disclosures.

Graduation Rate

In the fall semester of 2011, 1089 first-time, full-time, degree-seeking undergraduate students entered TCI. (Please note that this figure excludes students who entered as part-time students, as well as those who had previously attended another postsecondary institution.) As of August 31, 2014, 235 of the 1089 students (22%) had graduated or completed their programs of study within 150% of the normal time to completion. This rate does not take into account students who transferred to other institutions, nor does it account for students who completed their program after August 31, 2014 (i.e., those who graduated beyond 150% of the normal completion time).

ALUMNI ASSOCIATION

The mission of the Alumni Association is to:

- promote the academic and career advancement of TCI’s student body and alumni;
- provide alumni with a forum for networking with peers and the business community;
- promote life-long learning through special grants and other means;
- create effective programs in outreach, mentorship, career advancement and training; and

Further information can be obtained by contacting the Director of Alumni Relations in Room 116 at 320 West 31st Street.
EDUCATIONAL EXPENSES

Tuition
Each semester’s tuition and fees are due on or before the student’s first day of classes. However, TCI may agree to accept appropriate estimates of federal and state grants, student loans and/or signed agreements for installment payments, in lieu of full, up-front tuition. See a TCI Student Financial Aid representative in room 139 for more information.

**Full-time tuition**
A full-time student is one who registers for 12 or more credits/hours.

- $6,585 **Per semester**

**Additional tuition**
This applies to students who registers for more than 18 credits/hours.

- $430 **Per credit/hour**

**Part-time tuition**
A part-time student is one who registers for 11 or fewer credits/hours.

- $548 **Per credit/hour**

**Auditing tuition**
- Currently enrolled students: 0
- Recent alumni-graduated within the last 3 years: 0
- Alumni who graduated more than 3 years ago: $100 **Per credit/hour**
- All others: $250 **Per credit/hour**

Fees

**Mandatory**
- Matriculation fee: $100 **First semester only**
- Foreign Student Application Fee: $100 **First semester only**
- Software Licensing Fee: $50 **Every semester**
- Student Activity Fee: $65 **Every semester**
- Technology Fee: $150 **Every semester**

**Course-Specific**

- AUTO Laboratory Fees – (AUT-102, AUT-103, AUT-105, AUT-107, AUT-109, AUT-110, AUT-111, AUT-118): $150
- FMT Laboratory Fees – (ACL-101, BAS-201, BEL-102, BES-102, BPL-101, GRL-201): $75
- HVAC Laboratory Fees – (RAL-101, REL-101, RAL-102, REL-102, RAL-211, REL-211, RAL-212, REL-212, RIL-212): $75
- Laboratory/Clinic Fee (OPT-112, OPT-122, OPT-212, OPT-228): $150
- Math Laboratory Fees – (MAT-091, MAT-111, MAT-112, MAT-115, MAT-120, MAT-140): $60
- Photography Fee (DMA-203): $50
- Portfolio Presentation Fee (DMA-209): $25
- Print Design Fee (DMA-207): $50
- Theater Fee (HUM-205): $50
- Video Production Fee (DVP-210): $25

**Optional**
- eBooks (Full-time)**: $490 **12+ credit/hour**
- eBooks (Part-time)**: $40 **Per credit/hour**

*Additional fees apply to the courses listed above for educational supplies
**No refunds after 4th week from when the semester starts (certain excusions apply)
Other Charges

<table>
<thead>
<tr>
<th>Service</th>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Transcript Fee - Regular Service</td>
<td>$5</td>
<td>Per transcript</td>
</tr>
<tr>
<td>Academic Transcript Fee - Rush Service</td>
<td>$10</td>
<td>Per transcript</td>
</tr>
<tr>
<td>2nd Major Change Fee</td>
<td>$25</td>
<td>Per instance</td>
</tr>
<tr>
<td>3rd Major Change Fee</td>
<td>$50</td>
<td>Per instance</td>
</tr>
<tr>
<td>Credit by Examination Fee</td>
<td>$35</td>
<td>Per instance</td>
</tr>
<tr>
<td>Diploma Replacement Fee</td>
<td>$20</td>
<td>Per instance</td>
</tr>
<tr>
<td>Former Student Returning (FSR) Fee</td>
<td>$25</td>
<td>Per instance</td>
</tr>
<tr>
<td>ID Card Replacement Fee</td>
<td>$25</td>
<td>Per instance</td>
</tr>
<tr>
<td>Nurse Fee</td>
<td>$45</td>
<td>First immunization shot</td>
</tr>
<tr>
<td>Late Payment Plan Fee</td>
<td>$25</td>
<td>Per monthly installment</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>$100</td>
<td>Per instance</td>
</tr>
<tr>
<td>Returned Check Fee</td>
<td>$25</td>
<td>Per check</td>
</tr>
<tr>
<td>Schedule Change Fee</td>
<td>$25</td>
<td>Per check</td>
</tr>
<tr>
<td>Stop Payment Fee</td>
<td>$25</td>
<td>Per check</td>
</tr>
<tr>
<td>Unreturned Library Book or Video Fee</td>
<td>$50</td>
<td>Per book or video</td>
</tr>
</tbody>
</table>

Major Specific Certification and Exam Fees

As a technical college, TCI’s mission includes preparing students for employment in their chosen careers. Accordingly, many of the programs are directly linked to industry standards for which, in some cases, there are well-recognized certifications. The TCI faculty strongly encourages students to take the qualifying examinations for these certifications so as to gain a competitive advantage in the job market. In certain majors (as denoted below with an asterisk), the examinations are part of the requirements for graduation.

The following list shows which majors have industry certification examinations and the current fees:

**Division of Business and Legal Studies**

*Accounting Systems Technology*
- Certified Bookkeeper: $60
- Four Part Exam: $200
- Workbooks: $220

*Security Services and Management*
- NYS Pre-employment (8 hour): $0
- NYS 16 hour: $80

**Division of Engineering and Facilities Technologies**

*Industrial Engineering Technology: Computer*
- A+ Hardware through CompTia: Depends on Exam Site
- A+ Software through CompTia: Depends on Exam Site
- Certified Electronics Exam (CET) – through ETA: $60
Networking
N+ through CompTia  Depends on Exam Site
MCP: Microsoft Professional - Windows 8  Depends on Exam Site
Security Plus through CompTia  Depends on Exam Site

Automotive
ASE exams: MACS609, OSHA-10 Hours  $40 (each)

Heating, Ventilation, Air Conditioning and Refrigeration
*Industry Competency Exam (ICE) (included in TCI fees)  $0 ($30 for non-TCI students or repeats)
(Residential, Commercial or Light Commercial)
CampusVue ICE Test HOLD
Environmental Protection Agency (EPA 608 Refrigerant)  $35
OSHA General Industry: 10 hour (included in tuition)  $0
Fire Department New York – FDNY
G 60 Torch Use of Flammable Gas  $25
A 35 Operation of Air Compressors  $25
P 99 Low Pressure Boiler  $25
Z 51 RMO Certification of Qualification (upon graduation)  $60

Facilities Management Technology
OSHA General Industry: 30 hour (included in tuition)
Air Pollution Control DEP (NYC Dept. of Environmental Protection)  $25
Fire Department New York – FDNY
F 01 Fire Guard  $25
S 12 City Wide Sprinkler  $25
S 13 Standpipe for Multizone Systems  $25
P 99 Low Pressure Boiler  $25

Division of Health Sciences & Technologies
Health Information Technology
**Certified Biller and Coder Specialist  $105

Ophthalmic Dispensing
American Board of Opticianry –
National Opticianry Competency Examination  $225
National Contact Lens Examiners –
Contact Lens Registry Examination  $225
New York State Basic Ophthalmic Dispensing  $525
New York State Contact Lens  $150
New York State Education Licensure Fee  $108

* Exam Required for Graduation Clearance. TCI offers review session only.
** Subject to change in accordance with the certifying agency requirements

To register for certification exams or to request a letter for the FDNY administered exams, contact Room 400, certification@tcicollege.edu, or ext. 5308.
Auditing a Course
Auditors are accepted into classes on a space available basis; they do not pay mandatory fees and they do not receive academic credits.

Books, Tools and Supplies
The cost of books, tools and supplies varies by program, and is separate from tuition and fees. The average cost for a two-year associate degree program is approximately $3,200 or approximately $800 per semester. TCI’s policy for acquiring the required textbooks and supplies places the primary responsibility for purchasing these necessities on the student.

Posman Collegiate Bookstores operates a well-stocked bookstore that contains all the textbooks, tools, and supplies for all courses offered at TCI. The Bookstore is located in TCI’s main building at 320 West 31st Street.

Cost of Attendance Budgets
The College is required by the U.S. Department of Education to derive Cost of Attendance budgets for several categories of students. These budgets, used in calculating eligibility for federal aid, include direct costs such as tuition, fees and books as well as indirect costs like room, board, transportation, and personal expenses. These budgets represent costs for an academic year (i.e. two semesters) for an average full-time student. Cost of Attendance for part-time and half-time students is prorated over two semesters. The costs for students in non-degree programs may vary from these budgets.

<table>
<thead>
<tr>
<th>Students Without Dependents</th>
<th>Living at Home with Parents</th>
<th>All Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st Year</td>
<td>2nd Year</td>
</tr>
<tr>
<td>Tuition</td>
<td>$13,170</td>
<td>$13,170</td>
</tr>
<tr>
<td>Fees</td>
<td>$630</td>
<td>$530</td>
</tr>
<tr>
<td>Room &amp; Board</td>
<td>$4,260</td>
<td>$4,260</td>
</tr>
<tr>
<td>Books/Supplies</td>
<td>$1,600</td>
<td>$1,600</td>
</tr>
<tr>
<td>Transportation</td>
<td>$814</td>
<td>$814</td>
</tr>
<tr>
<td>Personal</td>
<td>$2,490</td>
<td>$2,490</td>
</tr>
<tr>
<td>Totals</td>
<td>$22,964</td>
<td>$22,864</td>
</tr>
</tbody>
</table>

BILLING TUITION TO THE STUDENT'S ACCOUNT
TCI has a one-week Add/Drop period at the beginning of each semester, during which students may change their class schedules for a small fee (see Educational Expenses Chart on page 25). Billing of tuition is determined by the student’s scheduled credits/hours on the day following the Add/Drop period. Students who subsequently withdraw from some – but not all – of their scheduled credits/hours, do not receive a tuition reduction or adjustment. Students withdrawing from all of their scheduled credits/hours receive a tuition adjustment according to TCI’s published refund policy, which is outlined on the following page. Students in non-degree programs may have different procedures and requirements which will be made available whenever such programs are offered.
REFUND POLICY

Prior to the First Day of Classes

Prior to the first day of class, any prospective student who makes a written request for cancellation of his/her application will have all payments to the College refunded. If the student is not accepted for admission to the College, all of his/her payments will be refunded.

On or After the First Day of Classes

Official Withdrawal: A student wishing to withdraw from TCI may do so by providing credible notice to the Office of Student Affairs, Room 101. Whenever possible, the notification shall be either in written or in-person format. Withdrawal notifications by telephone, e-mail, or other communication methods are deemed an “official withdrawal” provided that the communication is directed to the Office of Student Affairs, Room 101 and appears credible in the judgment of an appropriate TCI official. In rare cases, TCI may accept third-party notifications, particularly when the student may be incapacitated or otherwise unable to communicate.

The Office of Student Affairs should document (using TCI’s Official Withdrawal Form) the student’s verbal notification of his/her intent to withdraw and provide that information to the Registrar’s Office and/or Student Financial Services, as may be appropriate. Please note that the Office of Student Affairs is the point of contact for every student seeking to provide official notification of his or her intent to withdraw. For federal Title IV refund purposes, the withdrawal date of an official withdrawal is the student’s Last Date of Attendance (LDA) based on TCI attendance records.

Unofficial (or Administrative) Withdrawal: A student who stops attending all classes for 21 consecutive days, but fails to provide official and credible notification of his or her intent to withdraw (as described above), shall be administratively withdrawn as described in the TCI Catalog. For federal Title IV refund purposes, the withdrawal date of an unofficial/administrative withdrawal is the student’s Last Date of Attendance (LDA) based on TCI attendance records. TCI uses each student’s LDA for federal Title IV refund purposes regardless of when, during the semester, the student is administratively withdrawn.

For the purpose of determining reduced tuition and fee charges, TCI uses the last day of actual class attendance based on instructors’ attendance records. The withdrawn student will be responsible for a portion of the semester’s tuition and fees, in accordance with the following chart:

Tuition and Fees Adjustment Chart

Regular Semester and Summer Mini-Session (Module One)

<table>
<thead>
<tr>
<th>Last Date of Attendance</th>
<th>Percent of Originally Billed Tuition and Fees that Will Remain on the Student’s Account*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>20% (0% – New Students)</td>
</tr>
<tr>
<td>Week 2</td>
<td>50%</td>
</tr>
<tr>
<td>Week 3</td>
<td>75%</td>
</tr>
<tr>
<td>Week 4-14</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Note: These amounts do not include any items or funds issued to the student (such as books, transportation, etc.).
**Tuition and Fees Adjustment Chart**

**Summer Mini-Session (Module Two)**

<table>
<thead>
<tr>
<th>Last Date of Attendance Occurs in</th>
<th>Percent of Originally Billed Tuition and Fees that Will Remain on the Student’s Account**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>20% (0% – New Students)</td>
</tr>
<tr>
<td>Week 2</td>
<td>75%</td>
</tr>
<tr>
<td>Week 3-6</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Note:** These amounts do not include any items or funds issued to the student (such as books, transportation, etc.).

**Return of Federal Title IV Aid Funds**

Students receiving financial assistance under the federal Title IV programs (Pell, SEOG, and Direct Student Loans, but not Federal Work Study) are subject to federal regulations that determine the amount of Title IV funds that the student is eligible to retain subsequent to withdrawal.

The regulations governing the Return of Title IV Aid (also known as “R2T4”) require that the College calculate the amount of federal aid that the student has earned up to the time of withdrawal. Students earn aid in proportion to the amount of the semester that they successfully complete. The amount completed is calculated by dividing the number of days elapsed from the start of the payment period through the Last Date of Attendance (LDA) (which TCI calculates based on official attendance and/or academic records and uses as the Title IV Withdrawal Date) by the number of days in the semester. The following examples demonstrate how TCI uses each student’s LDA to determine Return of Title IV Aid refunds:

- If the semester/payment period is 100 calendar days and the student’s LDA occurs on the 25th day of the semester/payment period, the student will have earned 25% (25/100) of his/her Federal Title IV aid;
- If the semester/payment period is 100 calendar days and the student’s LDA occurs on the 50th day of the semester/payment period, the student will have earned 50% (50/100) of his/her Federal Title IV aid; and
- If the semester/payment period is 100 calendar days and the student’s LDA occurs on the 75th day of the semester/payment period, the student will have earned 75% (75/100) of his/her Federal Title IV aid.

In each of the examples above, after calculating the amount of aid earned from each funding source, the College must then determine if any unearned aid must be returned to the federal government or if the student is eligible for any additional federal aid.

For further TCI refund policy information, please contact the Student Financial Services Office in Room 139.

**Return of Unearned Federal Title IV funds due to Withdrawal**

Whenever a student withdraws from all classes during the semester or payment period, TCI will return any excess funds back to the federal aid programs in the following prioritized order: Federal Direct Unsubsidized Loans, Federal Direct Subsidized Loans, Federal Direct PLUS Loans, Federal Pell Grant funds, and Supplemental Educational Opportunity Grant (SEOG) funds.
CREDIT BALANCE POLICY

Currently Enrolled Students

TCI follows the regulations established by the Federal Government for students who have an account credit balance created from federal financial aid (i.e. Title IV) funds.

- Many students authorize TCI to hold or retain their credit balances and apply to future educational charges. This provides a good way to assist students with their budgeting and can decrease the amount of loan funds they may need to attend TCI. Students must sign a written authorization allowing TCI to retain credit balance funds and copies are kept with each student’s financial aid file.
  - If a student wants to rescind the authorization for TCI to retain credit balance funds, he/she may do so by submitting a request in writing to the Accounts Receivable Office in Room 130. The credit balance will be processed and remitted to the student within two weeks (or 14 days).

- Students who do not provide written authorization for TCI to retain Title IV credit balance funds within two weeks (or 14 days) after all Title IV funds are credited to the student’s account (as reflected on his/her ledger card), will be able to pick up a stipend check. TCI will make checks available to students within the two week (or 14 day) timeframe at the Cashier’s Window. TCI will hold checks for credit balances funds a maximum of two weeks (or 14 days).
  - Students who do not pick up their stipend checks from the Cashier’s Window within two weeks (or 14 days) after they are available to be picked up, will have those checks mailed to their residential address.

Any student who may have questions or needs more information about a credit balance may obtain assistance from TCI’s Accounts Receivable Office in Room 109.

Official and Unofficial Withdrawals

As stated above, TCI follows the federal regulations for withdrawn students who have a credit balance on their account created by federal financial aid funds. After all refund calculations are completed and the student still has a credit balance created by funds from non-federal sources, TCI then returns the unused funds to the student.

Graduates and Inactive Students

Graduates and students who complete a particular semester, but do not register for the following semester, are entitled to any credit balance left on their student account. Any such student can request the credit balance immediately upon separation from the College. In addition, all credit balance checks for graduates and inactive students are provided to the student via mail within two weeks from determining that the student did not register for the subsequent semester and crediting the funds to the student’s account (as reflected on his/her ledger card).
Federal Student Aid Programs

Public Law 112-74 amended HEA section 484(d) to eliminate Federal student aid eligibility for students who do not possess a “certificate of graduation from a school providing secondary education or the recognized equivalent of such a certificate.” The law makes an exception for students who have completed a secondary school education in a home school setting that is treated as a home school or private school under State law. Therefore, students who do not have a high school diploma or a recognized equivalent (e.g., GED), or do not meet the home school requirements, and who first enroll in a program of study on or after July 1, 2012, will not be eligible to receive Title IV student aid.

However, Federal law provides an exception under which students who do not possess a high school diploma (or the recognized equivalent) may qualify as eligible to receive Federal Title IV student financial aid under one of the ability-to-benefit (ATB) alternatives if the student was enrolled in a Title IV eligible program prior to July 1, 2012. That is, a student who does not possess a high school diploma (or the recognized equivalent) but can demonstrate previous enrollment in a Title IV-eligible program of study prior to July 1, 2012, may demonstrate Title IV eligibility by successfully completing one of the ATB alternatives. Those ATB alternatives include the student: (a) obtaining a passing score on an independently administered, approved ATB test; or (b) successfully completing at least six credit hours or 225 clock hours of postsecondary education. For more information, see the following guidance from the U.S. Department of Education: http://www.ifap.ed.gov/dpcletters/GEN1201.html.

STUDENT FINANCIAL ASSISTANCE

Since many TCI students are eligible to apply for some type of financial assistance, all students are encouraged to arrange for an interview with the Student Financial Services Office. Funds are generally available to those who can demonstrate financial need. However, there are deadlines for filing applications, so students should apply for assistance as early as possible.

Please note that the availability of federal, state and city funding for the financial aid programs described below is determined by those governmental bodies. Valid applications by TCI students do not necessarily guarantee that awards will be approved.

TCI students may be eligible to receive funds from one or more of the following financial aid programs. The programs are listed below in the same order in which the Student Financial Services Office considers them in awarding individual financial aid packages.
FEDERAL AND STATE GRANT PROGRAMS

Federal Pell Grant Program (Pell)

2015/2016 Award Amounts Per Semester: $0 to $2,888

The Federal Pell Grant Program is the foundation of the federal government’s financial aid programs. To be eligible for the Federal Pell Grant, as well as other federal aid, a student must: 1) be enrolled as a regular student in an eligible program offered by an approved post-secondary institution; 2) be a citizen or eligible non-citizen of the United States; 3) demonstrate financial need according to a standard formula established by the Congress; 4) make satisfactory academic progress as defined by the institution; 5) be registered with the Selective Service Board, if required; 6) not be in default on repayment of a student loan, or owe any federal financial aid refunds at any other institution; and 7) not be convicted of certain drug-related offenses, while receiving Title IV funding.

Application: The Free Application for Federal Student Aid (FAFSA) and instructional counseling can be obtained in the Student Financial Aid Office, Room 139.

Federal Supplemental Educational Opportunity Grants (FSEOG)

2015/2016 Award Amounts Per Semester: $0 to $250

Federal SEOG funds are reserved for undergraduate students who demonstrate exceptional financial need, as determined by the College. Priority for these awards is given to Pell Grant recipients.

Application: Early completion of the FAFSA is necessary for determining eligibility. The Student Financial Aid Office notifies eligible recipients.

New York State Tuition Assistance Program (TAP)

2015/2016 Award Amounts Per Semester: $0 to $2,000

TAP is a New York State entitlement program. To be eligible for financial assistance from TAP, an applicant must: 1) be a New York State resident for one year or more; 2) be a U.S. citizen or eligible non-citizen; 3) be a full-time matriculated student; 4) be in good academic standing; 5) earn a minimum of 24 credits applicable to the degree in the prior two semesters with the exception of six credits of remedial courses. The 24 credits can be earned in any combination; 6) be economically eligible according to current TAP criteria; 7) not in default on any HESC guaranteed Federal student loan; and 8) be charged tuition of at least $200 per academic year.

Undergraduate students matriculating in an associate degree or certificate program may generally receive TAP awards for a maximum of three years of study (6 payments). The amount of the TAP award is determined according to the level of study, the tuition charge, the income and financial need of the student, and the number of previous TAP payments the student has received. At TCI, TAP is only available to full-time students (at least 12 credits and hours combined).

Application: The FAFSA application generates the New York State Express TAP Application (ETA). Students must return the signed, completed ETA to the College or complete ETA online at www.hesc.ny.gov. Instructional counseling can be obtained in the Student Financial Aid Office, Room 139.

Please note: All TAP funding is subject to legislative approval by New York State. Dollar amounts and policies reflected in this catalog are in effect at the date of printing, and may be subject to change. Starting from 2006/2007 academic year, first-time state aid recipients, who do not have a certificate of graduation from a recognized school within the United States providing secondary education (a high-school diploma or recognized equivalent), must attain “a passing score on a federally approved ability to benefit (ATB) test that has been independently administered and evaluated as defined by the Commissioner of the State Education Department” to receive New York State funded grants or scholarships.
New York State TAP for Half-time Study (HTAP)

2015/2016 Award Amounts Per Semester: $0 to $1,000
HTAP is available to students pursuing six to eleven credits/hours in TCI’s Summer semester. Students must (1) meet all of the TAP eligibility requirements, (2) have attended classes at TCI full-time in the preceding Spring and Fall semesters, and (3) have earned 24 credits or more in the prior two semesters (three hours of remedial/ESL may be included in each of the prior two semesters).

Application: The FAFSA application generates the New York State Express TAP Application (ETA). Students must return the signed, completed ETA to the College, or, complete ETA online at www.hesc.ny.gov.

New York State Aid for Part-Time Study (APTS)

2015/2016 Award Amounts Per Semester: $0 to $800
The APTS program provides financial assistance to undergraduate students pursuing a degree or certificate on a part-time basis. In order to be eligible for APTS, a student must meet all of the TAP eligibility requirements noted above. This part-time award is limited to students enrolled for at least three, but less than twelve credits per semester.

Application: The New York State APTS application can be obtained in the Student Financial Aid Office, Room 139.

New York State Aid for Veterans

New York State provides supplemental grants for TAP-eligible veterans (and under certain circumstances to their children and/or spouses). All veterans are encouraged to apply for these supplemental awards. Family members of deceased or permanently disabled veterans may apply using the Military Service Recognition Scholarship Supplement. For more information, please visit Student Financial Aid in Room 139.

Application: The FAFSA application generates the New York State Express TAP Application (ETA). Students must return the signed, completed ETA to the College, or, complete ETA online at www.hesc.ny.gov.

New York State Regents Award for Children of Deceased or Disabled Veterans

New York State residents who are children of certain deceased or disabled veterans may be eligible to receive tuition support for attendance at institutions located in New York State. Information regarding this program can be obtained from the New York State Higher Education Services Corporation, 99 Washington Avenue, Albany, NY 12255.

Aid to Victims of the World Trade Center Attack

There are national, state and local scholarship funds available to current and prospective students who were victims (or whose families were victims) of the September 11th World Trade Center attack. Consult the following websites for more information:

www.hesc.com
www.nasfaa.org/linklists/911scholarship.asp
**Flight 587 Memorial Scholarships**

Flight 587 Memorial Scholarships provide financial aid to children, spouses and financial dependents of individuals killed as a direct result of American Airlines Flight 587’s crash in the Belle Harbor neighborhood of Queens, New York, on the morning of November 12, 2001. For more information, please visit the Office of Student Financial Aid in Room 139.

**Veterans’ Benefits**

All of TCI’s programs are approved for the training of veterans by the New York State Education Department. Under the Montgomery GI Bill Educational Assistance (MGIB) Program a veteran may receive funding from one of the following chapters:

- Active Duty Educational Assistance Program (Chapter 30)
- VEAP (Chapter 32)
- Survivors and Dependents Educational Assistance (Chapter 35)
- Select Reserve Educational Assistance Program (Chapter 1606)

All veterans eligible for educational benefits can use these benefits at TCI. Those who entered the military on or after January 1, 1977 are eligible to participate in the Contributory Education Assistance Program. Eligibility for these benefits can be determined only by the Veteran’s Administration. Inquiries should be directed to the Department of Veterans Affairs, 245 West Houston Street, New York, NY 10014, or by telephone at (212) 807-7229.

Applications and Enrollment Certification forms are available in the Student Financial Aid Office, Room 139.

*Note: Eligibility extends for 10 years beyond the date the applicant was discharged from the military.*

**Vocational Rehabilitation (Chapter 31)**

To apply for Vocational Rehabilitation, a veteran must have been discharged from the military with a 20% or higher medical disability rating. For more information, please contact the Department of Veterans Affairs office at the above address and telephone number, or visit Student Financial Aid in Room 139.

**Post 9/11 GI Bill (Chapter 33)**

The Post 9/11 GI Bill provides VA educational benefits to eligible veterans and service members with at least 90 days of aggregate service on or after September 11, 2001, or discharged honorably with a service-connected disability after 30 days. The program pays for tuition and fees. Additionally, qualified individuals may be eligible to receive a monthly allowance, books and supplies stipend, tutorial assistance, work-study benefits, rural allowance, and licensing and certification fees. For more information, please visit Student Financial Aid in Room 139.
New York State Vocational Educational Services for Individuals with Disabilities (ACCESS-VR)

TCI participates in the training of eligible students through the VESID Program. This program is designed to serve persons with disabilities that constitute or result in a substantial handicap to obtaining and maintaining a gainful occupation. VESID counselors refer qualified persons to TCI and sponsor them through direct payments to the College that cover part or all of their institutional charges. For additional information, please visit the Office of Student Financial Aid in Room 139. **Note:** This program is now called the New York State Adult Career and Continuing Education Services-Vocational Rehabilitation (ACCES-VR).

New York State Aid to Native Americans

An applicant who is: 1) on an official tribal roll of a New York State tribe, or the child of an enrolled member and a resident of New York State; 2) enrolled in an approved post-secondary program in New York State; and 3) in good academic standing, may receive up to $1,100 annually for undergraduate education costs for up to four years of full-time study. Additional information and application forms may be obtained from the Native American Education Unit, New York State Education Department, Albany, NY 12230.

Regents Professional Opportunity Scholarships (available to Ophthalmic students only)

These scholarships are awarded for study in New York State colleges that have approved programs leading to licensure in a profession licensed by the Regents (such as Ophthalmic Dispensing). Details may be obtained from the Bureau of College, School, and Community Collaboration; Cultural Education Center, Room 5C64; Albany, NY 12230.
INSTITUTIONAL GRANTS AND SCHOLARSHIPS

TCI offers institutional grants, scholarships, and awards to eligible students. TCI-sponsored students, students who are already on full scholarships, and non-matriculated students are not eligible for any grants, scholarships, or merit awards. Students are only eligible to receive one scholarship or grant per semester.

GRANTS

Alumni Grant
The Alumni Grant is designed to help graduates earn a second degree or supplement their earned degrees at TCI with additional coursework. To be eligible, a student must have earned a TCI degree and be enrolled in no less than six (6) credits in the semester toward which the grant will be applied. The grant amount, up to $2,000 per semester, can be applied toward tuition and fee balances which are not covered by other types of financial aid for up to five (5) consecutive semesters. Students are not eligible for this grant if they take out loans for the semester for which they are applying for the grant. To obtain an application and discuss eligibility, please see the Director of Alumni Relations in Room 116.

Freshmen Special Needs Grants
TCI offers limited financial assistance to first-semester students through the Freshman Special Needs Grant. These needs-based grants are offered to qualified incoming students to help cover the cost of tuition, fees, books and/or transportation. For more information, contact the Admissions Office in Room 131.

International Student Grant (F-1 Status)
TCI offers grants to F-1 status international students. The applicant must be a full-time student who has completed at least 12 credits; maintain a GPA of 3.5 or higher; and be current on payments made toward his/her TCI Pay-As-You-Study Cash Payment Plan. Those who qualify will receive a $500 tuition grant per semester—up to a total of $2,500—as long as s/he continues to meet the criteria. For more information, please see the International Student Advisor in Room 101.

Student Success Grant
TCI recognizes the importance of good attendance to academic success, and it rewards this commitment through the “Success Grant.” In order to receive this grant, you must: 1) be a full-time student; 2) maintain 90 percent attendance for each of two consecutive semesters as a full-time student; and 3) register for, and attend, the first two weeks of classes the next semester (as a full-time student). This award is applied retroactively to the semester in which it was earned, but the recipient must be a current student or have met graduation requirements in order to receive it. For more information, contact the Executive Assistant to the President in Room 106.

Retention Grants
TCI offers limited financial assistance to continuing students through Retention Grants. These grants, based on financial need, offer qualified continuing students assistance with tuition, fees, and e-books only. For more information, contact the Student Financial Aid office in Room 140.

Graduation Grants
This grant was created to help any student who has only one to six credits left to graduate and may not qualify for enough financial aid to cover the cost of tuition and fees. Students who have been approved by their dean to take over 18 credits in the last semester may also qualify for this grant to cover the additional cost-per-credit charge. For more information, please see a Student Financial Aid Representative in Room 139.
SCHOLARSHIPS

All scholarships require the completion of an application.

High School Scholarships
TCI awards up to 20 high school seniors or first-time college applicants a scholarship based on two recommendation letters (one from a school official and one from a non-family member) and a 500 word essay. These scholarships will cover the balance for tuition, fees and e-books for up to six semesters after grants, fellowships, and other scholarships have been applied. Students must maintain a cumulative GPA of 3.0 at TCI for continued eligibility.* Please see the Admissions Department for an application.

Divisional Scholarships
Each semester, TCI awards four $500 Divisional Scholarships (one per academic division) to full-time students who have completed at least 16 program credits and have maintained a cumulative grade point average of 3.0 or higher. These scholarships, selected by each division’s deans and chairpersons, are awarded based on merit and financial need. For more information, contact your divisional dean or chairperson.

The George Leelike Women in Technology Scholarship
Established in memory of George Leelike, a former President of Technical Career Institutes, this $500 scholarship is awarded each semester to female students who are pursuing an Associate’s degree in one of the following programs: Automotive Technology; Facilities Management Technology; Electronics Engineering Technology; Heating, Ventilation, Air Conditioning and Refrigeration Technology; Digital Media Arts; Industrial Electronics Technology, Computer Technology Track; or Networking Technology. For more information contact the Dean of Engineering and Facilities Technologies in Room 400.

Guglielmo Marconi Student Government Association Scholarship
One $500 scholarship is awarded each semester to full-time students in each academic division based on financial need and demonstrated service to the TCI community. For more information contact the Dean of Academic Administration in Room 101.

Sophokles Nakos Memorial Scholarship
Established in the memory of Sophokles Nakos, a well-regarded Heating, Ventilation, Air Conditioning and Refrigeration Technology (HVAC) instructor, this scholarship is awarded each year to an upper level student majoring in HVAC. The scholarship will be awarded to a student who has shown persistence in his/her studies and has overcome adversity by attending TCI. Candidates must have completed 24 semester credits and have a cumulative GPA of 2.0. The scholarship application is available in the summer semester, the recipient is awarded in the fall semester each year. For more information, see the Dean of Engineering and Facilities Technologies Division in Room 400.

*Term gpa cannot fall below a 2.0
MERIT AWARDS

Presidential Scholar Awards
TCI recognizes academic achievement and a commitment to excellence by awarding $150 to students who have completed 12 or more credits (i.e., full-time students) per semester and possess a cumulative grade point average of 3.85 or higher. This award is applied retroactively to the semester in which it was earned, but the recipient must be a current student or have met graduation requirements in order to receive it. For more information, please contact the Executive Assistant to the President in Room 106.

OTHER PROGRAMS

Federal Work-Study (FWS)
The Federal Work-Study program provides jobs for second semester students with remaining financial need, allowing them to earn money to help pay for their educational expenses. FWS awards are determined by the Office of Student Employment. Interested students may contact the Manager of Student Employment in Room 139.

Application: Students must file the FAFSA application and the FWS Application for Part-Time Employment.

TCI Pay-As-You-Study Cash Payment Plan
This interest-free installment payment plan allows students to make cash payment arrangements for the balance of one semester’s tuition, fees and books, if there is a balance after all financial aid has been exhausted over the duration of the semester.

For more information speak to a TCI Student Accounts representative in Room 130.

AmeriCorps
AmeriCorps is the National Service Program that provides Americans with educational awards in exchange for community service. After completing 1700 hours of service, an AmeriCorps member will receive an education award of $4,725. This award can be used at TCI to cover educational expenses. For further information about AmeriCorps, call 1-800-942-2677, or contact the Student Financial Aid in Room 139.
STUDENT EDUCATIONAL LOAN PROGRAMS

Federal Direct Subsidized and Unsubsidized Loans

Direct Subsidized Loans are low-interest loans made to students attending school at least half-time. The lender is the U.S. Department of Education rather than a bank. Students can qualify based upon the needs, as determined by the FAFSA. The need-based loan (known as “subsidized”) offers in-school interest subsidies by the federal government. In addition, students may qualify for non-need based loans (known as “unsubsidized”). Interest is charged on unsubsidized loans during all periods. It is possible for students to have both Direct Subsidized and Unsubsidized Loans.

Maximum annual and aggregate loan limits for Subsidized and Unsubsidized Direct Loans, by type of student

<table>
<thead>
<tr>
<th>Year in School</th>
<th>Type of student</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dependent undergraduate student (except those whose parents are unable to obtain PLUS Loans)</td>
<td>Independent undergraduate student (and dependent students whose parents are unable to obtain PLUS Loans)</td>
</tr>
<tr>
<td>First</td>
<td>$5,500 – No more than $3,500 of this amount may be in subsidized loans</td>
<td>$9,500 – No more than $3,500 of this amount may be in subsidized loans</td>
</tr>
<tr>
<td>Second</td>
<td>$6,500 – No more than $4,500 of this amount may be in subsidized loans</td>
<td>$10,500 – No more than $4,500 of this amount may be in subsidized loans</td>
</tr>
</tbody>
</table>

Time Limitation on Direct Loan Subsidized Loan Eligibility for First-Time Borrowers on or after July 1, 2013

There is a limit on the maximum period of time (measured in academic years) that a first time borrower can receive Direct Subsidized Loans. In general, the maximum eligibility period will be a 150% of the published length of the program. For more information, visit the Student Financial Aid office in Room #139.

If the student is a new borrower, the interest rate will be fixed, but not higher than 8.25%. From July 1, 2015 through June 30, 2016, the interest rate for a Federal Direct Loan in repayment is 4.29%. Fixed rates are set each June.

Application: A student must file the FAFSA and a separate loan application can be obtained at the Student Financial Services Office in Room 140. Information regarding the rights and responsibilities of a student loan borrower and repayment counseling can be obtained at the Student Loan Servicing Office in Room 130.

NOTE: TCI can refuse to certify a student’s direct loan application, or can certify a loan for an amount less than the student would otherwise be eligible for, if the College documents the reason for its actions in writing. The College’s decision is final, and cannot be appealed to the U.S. Department of Education.
Additional Federal Direct Loan Limits for Students

Undergraduate students (and dependent students whose parents do not qualify for a Federal Plus loan) who are enrolled at least half-time are eligible for Direct Unsubsidized Loans of up to $6,000 for the first and second years of study, if each year of study encompasses one full academic year. Dependent undergraduate students may borrow Direct Unsubsidized Loans of up to $2,000 for the first and second years of study, if each year of study encompasses one full academic year. The variable interest rate is the same for the Direct Subsidized Stafford Loan.

Application: Same as the Federal Loan Program.

Federal Direct Parent Loans (PLUS)

Federal Direct PLUS are for parents who want to borrow to help pay for their child’s education. These loans enable parents with good credit histories to borrow for each child who is enrolled at least half-time and is a dependent student. Federal Direct PLUS must be repaid.

Loan Limits and Interest Rates: The annual loan limit is the dependent child’s cost of education, as determined by the College, minus any estimated financial aid for the loan period.

Contact Financial Aid Advisor for PLUS Loan interest rate information.

Application: The parent borrower and the student complete a Federal Direct PLUS loan application and, in most cases, a PLUS pre-approval form.
ACADEMIC STANDARDS RELATED TO FEDERAL AND STATE FINANCIAL AID

In order to continue to qualify for the federal and state financial aid programs listed above, each student recipient must meet certain academic standards. These standards are outlined below, and are measured prior to the student’s registration for each semester.

Federal Academic Progress Requirements

A student must maintain the following cumulative standards to be eligible for Federal financial aid. Academic Progress will be checked at the end of each semester.

The Qualitative Standard: Grade Point Average (GPA) Chart

<table>
<thead>
<tr>
<th>Credits Attempted*</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 6</td>
<td>0.5</td>
</tr>
<tr>
<td>7 - 16</td>
<td>1.0</td>
</tr>
<tr>
<td>17 - 26</td>
<td>1.3</td>
</tr>
<tr>
<td>27 - 36</td>
<td>1.5</td>
</tr>
<tr>
<td>37 - 46</td>
<td>1.7</td>
</tr>
<tr>
<td>47 and above</td>
<td>1.9</td>
</tr>
<tr>
<td>Required for Graduation</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Note: Grades of WO, WU, P, HPR, APR, LPR, FR, TR, EX and X are not considered credit attempts for GPA calculations. If a course is attempted more than once, only the highest grade and credits are computed. See the “Academic Record” section titled Grading System for more information.

The Quantitative Standard: Completion Rate - Maximum Timeframe

In order to maintain eligibility for Federal financial aid, students must complete their programs of study within a maximum timeframe of 150% of the length of their program. For purposes of this calculation, the total number of credits needed to attain the degree or certificate defines the length of each individual program.

<table>
<thead>
<tr>
<th>Credits Attempted *</th>
<th>Minimum % Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Earned Credits/Attempted Credits)</td>
<td></td>
</tr>
<tr>
<td>0 - 15</td>
<td>30%</td>
</tr>
<tr>
<td>16 - 30</td>
<td>35%</td>
</tr>
<tr>
<td>31 - 45</td>
<td>40%</td>
</tr>
<tr>
<td>46 - 60</td>
<td>50%</td>
</tr>
<tr>
<td>61 - 75</td>
<td>60%</td>
</tr>
<tr>
<td>76 - 90</td>
<td>65%</td>
</tr>
<tr>
<td>91 and above</td>
<td>67%</td>
</tr>
</tbody>
</table>

*Note: All grades for credit bearing courses, including withdrawals and failures are considered attempts for purposes of the completion rate and time frame.

Special Grading Circumstances

Withdrawal grades do not count in calculating GPA, but count as attempted credits for time frame and completion rate—i.e., the pursuit of program. Therefore, they adversely impact SAP.

Transfer Students

All transfer credits will be counted as attempted and completed.
Repeated Courses

Students who have received grades of F, WU, or WO two or more times in a course will not be allowed to take a full course load of twelve credits or more. The student will only be allowed to take up to a maximum of two courses for the term, which would only include the previously attempted courses. An exemption from this rule must be approved by the Office of Student Affairs.

Policy for Last Semester Repeated Courses

Students are allowed to repeat one or two courses with a passing grade during the last semester. During this semester, a student must take twelve or more credits in his or her major in addition to the repeated course or courses, and must not drop below twelve credits in his or her major courses (excluding repeated courses).

A student who has completed his or her coursework with a GPA less than 2.0 will be allowed to repeat up to two courses in the last semester in order to achieve a GPA of at least 2.0. This has to be approved by the Office of Student Affairs. Students who register between 6 and 11 credits are not eligible for state grants; however, they may be eligible to receive federal Title IV aid.

Academic/Financial Aid Warning

A student who does not meet the above standards will be placed on academic warning. The student will be eligible for financial aid for the next semester only. If the student still does not meet these standards, their financial aid may be terminated.

Appeal

A student who has been terminated from financial aid for not making Satisfactory Academic Progress (SAP), but feels there were mitigating circumstances, may appeal to the Dean of Student Affairs. This appeal must be made in writing and submitted within two weeks of the notice of termination, or upon re-enrollment. Documentation of the mitigating circumstances may be required with this appeal. (Mitigating circumstances include, but are not limited to: illness or injury of a student or a member of the student’s immediate family, death in the student’s immediate family, or other trauma). The student must explain what has changed in their situation that will allow them to achieve SAP by the next semester. The Dean of Student Affairs will review the appeal and the student will be notified of the decision within thirty (30) days.

Academic/Financial Aid Probation

Students can only be placed on probation and receive aid for one semester upon winning an appeal. Additionally, only students who have the ability to meet the satisfactory progress standards by the end of the evaluation period may be placed on probation. If the student is not making progress by the end of the probation period, the student may be terminated from school and no more aid may be paid to the student.

Reinstatement

A student whose aid is terminated for not making SAP can only have their aid reinstated by meeting the above standards.
Standards for TAP Satisfactory Academic Progress and Pursuit of Program

1. At the conclusion of each semester, TCI reviews all grades to determine if recipients of TAP awards are making satisfactory academic progress. To remain in good standing for TAP purposes, a student must achieve a certain grade point average (GPA) before being certified for the next semester’s TAP payment (see chart in #3). Loss of good standing due to poor grades results in a loss of TAP for the next semester, unless the student is eligible to receive a one-time waiver for extenuating circumstances (see waiver conditions below).

2. In addition to academic achievement, TAP award recipients must demonstrate pursuit of program effort and complete a reasonable number of credits each semester to remain eligible for TAP:

   a) In the semesters related to the first two payments, a student must complete at least 6 credits and/or hours. All grades except WU and WO are considered completions for this purpose. Failure to complete the 6 credits and/or hours removes TAP eligibility for the next semester, unless the student uses the one-time waiver for extenuating circumstances (see waiver conditions below).

   b) In the semesters related to the third and fourth payments, a student must complete at least 9 credits and/or hours. In the semesters related to the fifth and sixth payments, a student must complete at least 12 credits and/or hours.

   c) If a student withdraws from all classes during a semester, TAP eligibility is lost for the following semester unless the student is eligible for a one-time waiver due to extenuating circumstances (see waiver conditions below). The student can restore eligibility by using the one-time waiver, by attending one or more semesters at the student’s own expense, or by remaining out of school for one calendar year.

3. In addition to completing a minimum number of credits each semester, a student must demonstrate achievement over the length of the program according to the following charts.

   A non-remedial student, whose first award year is in 2010-11 academic year and thereafter, must meet this SAP chart:

<table>
<thead>
<tr>
<th>Before being certified for this payment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student must have accrued at least this many semester credits</td>
<td>0</td>
<td>6</td>
<td>15</td>
<td>27</td>
<td>39</td>
<td>51</td>
<td>N/E</td>
</tr>
<tr>
<td>With at least this GPA</td>
<td>0</td>
<td>1.3</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.0</td>
<td>N/E</td>
</tr>
</tbody>
</table>

   Remedial students and students whose first TAP award was before 2010-11 academic year must meet the following SAP chart:

<table>
<thead>
<tr>
<th>Before being certified for this payment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student must have accrued at least this many semester credits</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>18</td>
<td>30</td>
<td>45</td>
<td>N/E</td>
</tr>
<tr>
<td>With at least this GPA</td>
<td>0</td>
<td>0.5</td>
<td>0.75</td>
<td>1.3</td>
<td>2.0</td>
<td>2.0</td>
<td>N/E</td>
</tr>
</tbody>
</table>
Remedial Definition (for TAP SAP)

“Remedial student” is defined as a student:

(a) Whose scores on a recognized college placement exam or nationally recognized standardized exam indicated the need for remediation for at least two semesters, as certified by the college and approved by the State Education Department (SED); or

(b) Who was enrolled in at least six semester hours of non-credit remedial courses, as approved by SED, in the first term he/she received a TAP award.

New York State Academic Progress Requirements (cont.)

4. A student must have a minimum GPA of 2.0 after receiving two academic years (i.e., 24 points) of TAP in order to maintain eligibility. TAP points used at institutions other than TCI count toward the 24 points. Thus, a student who has used TAP at another school may reach the 2.0 GPA standard earlier than a new TCI student who has not previously received TAP at any other school.

5. For students who have TAP points that fall between payment levels, TCI uses an enhanced TAP SAP Chart. This chart incorporates the chart above, and also prorates accrued credits and GPAs for point levels up to 34. The chart allows TCI to judge SAP in a fair and equitable manner, for all students who have taken a combination of quarter and semester classes. The chart is available in the Office of Student Affairs, Room 101.

Waiver of Pursuit and Progress Standards

If it can be documented that the loss of good academic standing for TAP purposes was a function of extenuating circumstances beyond the control of the student (such as illness, death of an immediate family member, fire, etc.), is unlikely to re-occur, and that the student was otherwise progressing in the program, he/she may appeal to a Student Affairs counselor, who is located in Room 101, for a one-time waiver of pursuit and progress standards. All circumstances must be fully documented. A student is allowed to use this waiver for extenuating circumstances one-time only.

Waiver of 2.0 “C” Average Standard

If it can be documented that the loss of TAP due to the C average standard was a function of extenuating circumstances beyond the control of the student (such as illness, death of an immediate family member, fire, etc.), and is unlikely to re-occur, the student may appeal to a Student Affairs counselor for a waiver of this standard. All circumstances must be fully documented. New York State does not prohibit the use of this type of waiver on more than one occasion.
Prior to the beginning of each semester, the Registrar’s Office provides students with a schedule of registration dates and an opportunity to pre-schedule courses for the next semester.

TCI’s curricula are organized around a block-course sequence designed to facilitate progression through degree and certificate programs. Students who follow normal course sequencing are usually scheduled easily for subsequent semesters. However, students who do not follow the regular course blocks may find certain courses unavailable at preferred times.

Academic advisors are available throughout the registration period to assist students with the process. It is, however, the responsibility of each student to make certain that courses withdrawn from or not passed are repeated, that courses previously passed are not repeated, and that all course and program requirements are met. Registered students should review their schedules carefully to make sure they are appropriate. A dean or advisor should be contacted immediately if there appear to be any errors.

Late Registration

TCI provides a five-day late registration period following regular registration. Each semester’s registration schedule is published and disseminated by the Registrar’s office. Students in non-degree programs may have a different schedule which will be made available whenever such programs are offered.

Add/Drop Period

During the add/drop period, registered students have the opportunity to make additions or deletions to their class schedules. TCI determines billing based on the student’s schedule as of the day following the add/drop period. No schedule changes can be made after the first week without the written approval of a dean. Students in non-degree programs may have different procedures and requirements which will be made available whenever such programs are offered.

Student Transfer Policy

Students may transfer from one section to another or from day to evening and vice-versa. From the day of the term up to the last day of add/drop class, students are allowed to transfer from a section to a similar one in the daytime (or in the evening) or from daytime to evening and vice-versa based on availability. Existing grades must be forwarded to the new instructor. After the last day of add/drop class and before midterm grade deadline, only in special cases, the request for change would be considered by the dean of the related department.

Class Hours and Semester Credits

The credit hour is the basic unit of academic credit granted by an academic institution. At TCI College, a “lecture” credit hour represents the equivalent of 55 minutes. This means that for a typical three hour class, the minimum instructional time is 165 minutes per week for a 14 week semester (2,310 contact minutes). In addition, students are expected to do a minimum of two hours of work per week out of the classroom.

The number of semester credits assigned to each course varies with the type of course (lecture or laboratory), and the number of hourly classes scheduled per week. For example, a history course that meets for 3 hours a week (shown with the designation of 3-0-3 in the Course Description section of the catalog) consists of 3 hours of lecture, 0 hours of laboratory time, and bears 3 semester credits. Laboratory courses usually bear fewer semester credits. For example, a laboratory course that meets for 4 hours per week typically results in 2 semester credits (shown with the designation of 0-4-2 in the Course Description section of the catalog). A course can be lecture and lab. For example, a course that is 3 credits, comprised of lecture and lab, would be designated as 2-2-3 (2 hours of lecture, 2 hours of lab, 3 credits).
The expectation of contact time and student effort outside the classroom is the same in all formats of a course whether it be fully online, hybrid or face-to-face.

See examples below:

**Credit Hours for a Lecture Class.**

<table>
<thead>
<tr>
<th>Number of semester credit hours</th>
<th>Minimum instructional time per week for 14 weeks</th>
<th>Total minimum instructional time per semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 credit hour</td>
<td>55 contact minutes</td>
<td>770 contact minutes</td>
</tr>
<tr>
<td>2 credit hours</td>
<td>110 contact minutes</td>
<td>1,540 contact minutes</td>
</tr>
<tr>
<td>3 credit hours</td>
<td>165 contact minutes</td>
<td>2,310 contact minutes</td>
</tr>
<tr>
<td>4 credit hours</td>
<td>220 contact minutes</td>
<td>3,080 contact minutes</td>
</tr>
<tr>
<td>5 credit hours</td>
<td>275 contact minutes</td>
<td>3,850 contact minutes</td>
</tr>
<tr>
<td>6 credit hours</td>
<td>330 contact minutes</td>
<td>4,620 contact minutes</td>
</tr>
<tr>
<td>7 credit hours</td>
<td>385 contact minutes</td>
<td>5,390 contact minutes</td>
</tr>
</tbody>
</table>

**Credit Hours for a Lab. Labs are courses where the major focus is on experiential activities to support student learning. Minimum contact is based on two times the amount of contact time of a lecture.**

<table>
<thead>
<tr>
<th>Number of semester credit hours</th>
<th>Minimum instructional time per week for 14 weeks</th>
<th>Total minimum instructional time per semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 credit hours</td>
<td>110 contact minutes</td>
<td>1,540 contact minutes</td>
</tr>
<tr>
<td>2 credit hours</td>
<td>220 contact minutes</td>
<td>3,080 contact minutes</td>
</tr>
<tr>
<td>3 credit hours</td>
<td>330 contact minutes</td>
<td>4,620 contact minutes</td>
</tr>
<tr>
<td>4 credit hours</td>
<td>440 contact minutes</td>
<td>6,160 contact minutes</td>
</tr>
</tbody>
</table>

**Internships Taken for Credit Only**

TCI internships taken for credit average 10-15 hours per week, in addition to weekly meetings with the instructor who is designated for the course.

**Online Courses**

These courses, which are taken entirely online, must meet the minimum requirements for credit hours. Contact time can consist of, but is not limited to: interaction with a faculty member, group discussions, journals, group projects and interactive tutorials. Activities such as these (or any combination thereof) must take place at least once a week.

**Hybrid Courses**

These courses, which are taken partly online and partly on-ground, must meet the minimum requirements for credit hours. Contact time is assessed using both on-site definitions (for the on-site portion) and online definitions (for the online portion).

**Directed Study**

Courses listed in the catalog may be offered to a single student, as a “directed study”. The material covered follows the standard course curriculum. This format is offered usually when the course that the student needs to graduate is not being offered. This format requires the approval of the Academic Dean and the Dean of Academic Administration.

**Campus Processes – Curriculum Review**

The TCI Curriculum Committee (comprised of instructors from various majors) is charged with reviewing all new courses. As part of this process, the Committee ensures the correct designation of credit hours based on curriculum and student learning outcomes.
**Prerequisite/Corequisite Requirements**

Some courses have prerequisites and/or corequisites. The student must successfully complete the prerequisite courses prior to registering for the course in question. The corequisite courses must be taken simultaneously or prior to the course in question.

A student can apply for a waiver to omit the prerequisite or corequisite requirements. Waiving of prerequisites or corequisites can be done on an individual basis with the dean’s approval. The written reason of approval must be done by the appropriate divisional dean.

The following standards must be met in order to apply for a waiver:

- Student must have completed a minimum of 25 credits.
- Student must have a GPA of 2.5 or better.
- Waiver cannot be granted because a student failed prerequisite or corequisite courses.

**Electives**

Elective course offerings may vary from semester to semester. Students wishing to register for electives should contact the divisional dean or Office of the Registrar regarding current elective course offerings.

**College Preparatory and Supplemented Courses**

TCI provides non-credit-bearing college preparatory courses in English, English as a Second Language (ESL) and mathematics for students whose placement test scores indicate a need for additional academic preparation prior to commencing a full program of college-level studies. Credit-bearing supplemented English and mathematics courses are also offered to assist students whose academic background indicates the need for a lesser amount of additional support.

Students enrolled in non-credit-bearing college preparatory courses may concurrently register for some credit-bearing courses, depending upon the student’s program of study and individual circumstances. Academic advisors review student schedules to determine appropriate course placement. While scheduling is somewhat flexible, college preparatory and ESL courses must normally be completed prior to enrollment in credit-bearing English courses and most social science and humanities courses.

Non-credit-bearing college preparatory, ESL and certification preparation courses are graded on a Pass/Fail basis.

**Cooperative Education Courses**

A Cooperative Education/Internship Program is available as part of the College’s degree programs. For more information, please make an appointment to visit the Department of Career Services or see the “Career Services” section titled Cooperative Education/Internship Program.

**Auditing a Course**

No credit or grades will be awarded for audited courses. Audited courses may not be used to establish a full-time course load. Audited courses are not used in determining the academic status of students. A student who wishes to audit a course may do so on a space available basis with the appropriate divisional dean’s approval.

**Advisement**

All TCI students may contact members of the faculty for advice concerning their academic progress. All full-time faculty have advising hours on Wednesdays, 11:00am-12:00pm. Arrangements can also be made to see faculty by scheduling appointments by email.

In addition, an experienced team of Student Affairs counselors provides advisement to students throughout their studies at TCI. Students may receive referrals to the Learning Center and/or advice on academic matters.
## Grading System

The grading system outlined below is used for all courses at TCI:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent</th>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>95-100</td>
<td>Outstanding</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>90-94</td>
<td>Excellent</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
<td>Very Good</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
<td>Good</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
<td>Above Average</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>77-79</td>
<td>Satisfactory</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>73-76</td>
<td>Adequate</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>70-72</td>
<td>Below Average</td>
<td>1.7</td>
</tr>
<tr>
<td>D</td>
<td>65-69</td>
<td>Poor</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>below 65</td>
<td>Failing</td>
<td>0.0</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td>Passing at mid-term</td>
<td>——</td>
</tr>
<tr>
<td>HPR</td>
<td>87-100</td>
<td>High Pass--Remedial or ESL</td>
<td>——</td>
</tr>
<tr>
<td>APR</td>
<td>77-86</td>
<td>Average Pass--Remedial or ESL</td>
<td>——</td>
</tr>
<tr>
<td>LPR</td>
<td>65-76</td>
<td>Low Pass--Remedial or ESL</td>
<td>——</td>
</tr>
<tr>
<td>FR</td>
<td>below 65</td>
<td>Fail--Remedial or ESL</td>
<td>——</td>
</tr>
<tr>
<td>INC</td>
<td></td>
<td>Incomplete (temporary grade)</td>
<td>——</td>
</tr>
<tr>
<td>WO</td>
<td></td>
<td>Withdrawn officially by the Last Day to Withdraw Without Academic Penalty</td>
<td>——</td>
</tr>
<tr>
<td>WU</td>
<td></td>
<td>Withdrawn unofficially by the Last Day to Withdraw Without Academic Penalty</td>
<td>——</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td>Audit</td>
<td>——</td>
</tr>
<tr>
<td>TR</td>
<td></td>
<td>Transfer credit accepted from other institutions</td>
<td>——</td>
</tr>
<tr>
<td>EX</td>
<td></td>
<td>Credit awarded based on examinations, certifications and/or life experience</td>
<td>——</td>
</tr>
<tr>
<td>EXR</td>
<td></td>
<td>Exemption from a remedial course</td>
<td>——</td>
</tr>
</tbody>
</table>

Information on calculating a grade point average (GPA), final examination and other policy details is available in the Office of Student Affairs, Room 101.

### Incomplete Grades

An incomplete (INC) grade may be assigned only in extraordinary cases. It is intended for students who have not completed their course requirements by the end of the semester due to illness, family circumstances or emergencies (which they can document), and who would have passed the courses if all missed requirements had been met.

A student assigned an INC grade is not considered to have fulfilled the requirements of that course, and therefore cannot count the course as a completed prerequisite or corequisite for any subsequent course. The student will not be able to register until the INC is converted to a grade.

When an INC grade is granted, an Incomplete Grade Notification Form will be filled out by the instructor and mailed to the student. A student should make arrangements as soon as possible with
his/her instructor so that an INC grade can be timely changed to a specific letter grade (A to F or HPR, APR, LPR and FR). Converting an INC grade to a passing grade is to be regarded as a high priority because the student cannot register if a grade change form is not processed by the add/drop deadline.

During the first two weeks of the subsequent semester, the INC grade remains on the student’s record. At the end of the two week period, all INC grades that have not been changed to a specific letter grade are converted by the Registrar’s Office to the grade of F.

Students continue to have the opportunity to convert the F grade to a passing grade by finishing all work by the Last Day of Midterm Exams.

Students in non-degree programs may have different procedures and requirements which will be made available whenever such programs are offered.

Failing Grades
Students are assigned failing grades when their class or laboratory work, quizzes, tests, assignments, class participation and attendance – all the factors that determine the final grades for a particular course – do not meet the minimum requirements for a passing grade that are set by the instructor at the beginning of the semester.

A failing grade in a required course requires the student to repeat the course and does not satisfy applicable prerequisite and/or corequisite requirements.

Change of Grades
The time period during which official grades may be changed by an instructor in response to a student’s appeal is the last day of midterm exams in the semester following the one in which the course was taken. Any exceptions must be approved by the Academic Dean and the Provost. Valid reasons for changing a grade include: entry error, computation error, transcribing error, a portion of the student’s work was overlooked, or the student’s work during the course was reevaluated.

To alter a given grade, a Change of Grade Form must be filled out by the instructor and approved by a Financial Aid Director and the dean of the appropriate academic division. It is then submitted to the Registrar’s Office where it will be made part of the student’s permanent record.

In the event that the instructor of the course is not available for any reason, the chairperson of the division will make the decision on a grade change.

Changing Majors
A student who wishes to change majors may do so before the beginning of a new semester, but no later than the last day of registration. The student must consult with a Student Affairs counselor who will review the student’s original test scores and grades, make a determination, and submit any approved change to the Office of the Registrar. Please note that changing majors may extend the amount of time required to complete a degree, and may have financial implications.

Schedule Changes
A $25 Schedule Change Fee will be charged each time a change is made after the original schedule has been issued.

Degree Requirements
Students are required to satisfy the degree requirements for their program of study that are in effect at the time they begin their first semester. Degree requirements may be changed by the College or the student as follows:
• Students who have not attended the College for three or more semesters must have their academic record reviewed by a dean or designate to determine the degree requirements under which the student will re-enter. The College’s standard approach is to have the student adhere to the current degree requirements of the program.

• Currently attending students or students who have attended at some time during the past 12 months may request a dean’s review and seek approval to have the current degree requirements apply to them.

• In most cases, students who change majors must adhere to the degree requirements of the new major that are in effect at the time they begin study in the new program.

Withdrawal

A student who wishes to officially withdraw from a course or a program of study should see a counselor in the Office of Student Affairs. An Official Withdrawal Request Form must be completed by the student. Students officially withdrawing after the Add/Drop period but before the Last Day to Withdraw Without Academic Penalty will have a grade of WO recorded on their transcript. The grade of WU cannot be changed to that of WO. (See the College Calendar at the front of the catalog for each semester’s specific dates.) Students who withdraw after the deadline will be assigned a letter grade, based on the individual determination of the instructor.

Withdrawals may result in serious problems for the student, (e.g., issues with course sequencing and scheduling, reductions in financial aid, inability to maintain an adequate grade point average).

Students completing the spring semester who do not enroll for the optional summer semester are not considered withdrawals by the College.

Students in non-degree programs may have different procedures and requirements which will be made available whenever such programs are offered.

Presidential Scholar and Dean’s List Honors

Special recognition is given each semester to students who have achieved a high level of scholastic excellence. Students who have earned at least 12 credits and maintained a cumulative GPA of 3.85 or higher are recognized as Presidential Scholars. In addition, students with a semester GPA of 3.5 or higher (without any F or WU grades) are posted as the College’s Dean’s List. Honored students are notified each semester in writing and at an award ceremony of this distinction.

Privacy of Student Records

The Family Educational Rights and Privacy Act of 1974, as amended, (FERPA; the Buckley Amendment) grants all eligible students the right of access to their own education records as defined in this law. The law prohibits access to, or release of, personally identifiable information (other than directory information), without written consent. FERPA of 1974 is affected by Section 510 of the Veterans Education Act of 1976 (P.L. 94-502), which provides that “records and accounts pertaining to veterans as well as those of other students shall be available for examination by our government representatives.”

The following education records are considered subject to FERPA:

A. Education records in the Office of Student Affairs.
B. Academic records in the Office of the Registrar.
C. Financial records in the Student Financial Services Office.
D. Immunization records in the Office of the Registrar.

(College policy does not permit access to or release of student records to any party, other than the student or appropriate College staff, or as authorized by this law, except in cases of emergencies of health or safety.)
1. The right to inspect and review their education records within 45 days of the day the College receives a request for access.

Written requests should be submitted to the Office of the Registrar. The request must identify the record(s) that the student wishes to inspect. The Registrar will notify the student concerning when and where the records may be inspected. If the Office of the Registrar does not maintain the records in question, the Registrar will advise the student of the correct college official to whom the request should be made.

2. The right to request the amendment of a record that the student believes is inaccurate or misleading.

A request must be made in writing to the college official responsible for the record, must clearly identify the record the student wants changed, and must specify why the student believes that it is inaccurate or misleading.

FERPA was not intended to provide a process to be used to question substantive judgments that are correctly recorded. The right of challenge is not intended to allow students to contest, for example, a grade in a course because they feel that a higher grade should have been assigned.

If the College decides not to make the amendment to the record that the student requested, the College will notify the student of the decision and advise the student of their right to a hearing regarding the request for amendment. Additional information regarding the hearing will be provided with the notification of the right to a hearing.

3. The right to consent to disclosure of personally identifiable information contained in the student’s education record, except to the extent that FERPA authorizes disclosure without consent.

One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interest. A “school official” is a person employed by the College; a person or company with whom the College has contracted; a person serving on the Board of Directors; or a student who is serving on an official committee or who is assisting a school official in performing his or her responsibilities. A school official has legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

The College may disclose education records in certain other circumstances without consent as allowed in FERPA Regulations. For example, the College will, upon request, forward education records to other agencies or institutions in which the student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC, 20202-4605
5. The right to restrict the disclosure of public or directory information.

FERPA allows the College to disclose public or directory information without the student’s consent. The College designates the following as directory information: Student’s name, local and permanent home addresses, telephone numbers, campus email address, other personal email address, date and place of birth, academic level, enrollment status (full-time/part-time), major/minor area of study, participation in officially recognized activities and sports, weight and height, dates of attendance, degrees and awards received, the name of the most recent educational institution previously attended, the student’s photograph, and the names and addresses of the student’s parents/guardians.

Students may restrict the disclosure of directory information, except to school officials with legitimate educational interest and others as outlined in #3 above. To do so, the student must complete the “Request to Prevent Disclosure of Directory Information” form available in the Registrar’s Office in room 145. Once filed, this request becomes a permanent part of the student’s record until he or she instructs the College, in writing, to remove it by filling out an “Authorization to Release Educational Records” form.

For Purpose of compliance with FERPA, the College considers all students independent.

Any questions concerning FERPA should be directed to the Office of the Registrar. A copy of FERPA Regulations is available in the Office of the Registrar, upon request.

Transcripts

Official transcripts of grades are issued by the Office of the Registrar, upon receipt of a signed written request and payment of required fees by a student or former student who does not have a hold on their records. Students must have a zero balance on their student account.

*Unofficial transcripts can be printed by the student from their Student Portal or obtained at the Office of the Registrar.
Requests by mail should include:

- required fees;
- your name (at time of attendance);
- TCI student ID number (if possible);
- social security number;
- date of birth;
- current address;
- current daytime telephone number;
- dates of enrollment at TCI;
- your signature (required before we can release the transcripts); and
- name(s) and full address(es) of where the transcripts are to be sent.

Requests should be sent to:

Office of the Registrar
TCI, College of Technology
320 West 31st Street
New York, NY 10001

Due to signature and fee requirements, requests cannot be accepted by fax or email.

SATISFACTORY ACADEMIC PROGRESS (SAP)

Academic Warning and Probation

To remain in school, a student must demonstrate academic achievement on a semester-by-semester basis for his or her current program of study. If a student’s grades indicate that he or she is in danger of being placed on academic probation, the Office of Student Affairs may issue an academic warning. For example, a grade point average below 2.0, but above probation, is considered such a condition. In certain circumstances, such as a history of poor grades, failures or withdrawals, the student will be counseled prior to registration and may be advised to accept a reduced course load. Failure to achieve certain minimum standards places a student on academic probation. The standards are as follows:

<table>
<thead>
<tr>
<th>Total Credits Attempted at TCI</th>
<th>Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 6</td>
<td>0.5</td>
</tr>
<tr>
<td>7 - 16</td>
<td>1.0</td>
</tr>
<tr>
<td>17 - 26</td>
<td>1.3</td>
</tr>
<tr>
<td>27 - 36</td>
<td>1.5</td>
</tr>
<tr>
<td>37 - 46</td>
<td>1.7</td>
</tr>
<tr>
<td>47 and above</td>
<td>1.9</td>
</tr>
<tr>
<td>Required for Graduation</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Courses with grades of WO, WU, P, HPR, APR, LPR, FR, TR, EX and X are not considered to be credits attempted for the calculation of a grade point average. If a student takes a course more than once, the highest grade and credits earned are computed. An official transcript contains a complete history of coursework taken at TCI.

Following posting of each semester’s final grades, and prior to registration for the next semester, students falling below the standards outlined above are placed on academic probation and must see a Student Affairs counselor before registering for classes. Such students may be advised to register for a reduced course load.

Students who are on probation for one semester are eligible to receive financial aid for the probationary semester, and are permitted one complete semester to return to good academic standing or face academic dismissal.
Academic Dismissal

A student’s failure to meet academic achievement standards for two consecutive semesters may result in academic dismissal. This action may be appealed in writing to the Office of Student Affairs, and the appeal must be accompanied by detailed documentation of any extenuating circumstances (e.g., health related problems, family emergencies, etc.) that support the appeal.

In order for the student to be able to register, the appeal must be filed by the first day of class. The Office of Student Affairs will review it, and make a determination regarding the student’s eligibility to register for courses by the last day of the late registration period.

Should the appeal be successful, the student will be permitted one additional semester to return to good academic standing. However, he or she will not be eligible for state or federal financial aid during that semester.

Students with repeated patterns of failures and/or withdrawals may be academically dismissed at the discretion of the Office of Student Affairs.

Financial Aid Implications

It is important to note that academic probation and dismissal have implications for standing with state and federal financial aid agencies. Please see the “Student Financial Services” section titled Academic Standards Related to Federal and State Financial Aid for further information.

ACADEMIC INTEGRITY

Every TCI student is expected to maintain high standards of academic integrity in completing assigned work, taking examinations, conducting experiments, using hardware and software, and interacting with fellow students. Violations of standards of academic integrity, including cheating, plagiarizing, copying another student’s work and violating copyrights on printed material or software, diminish the quality of life on campus, and are subject to disciplinary action, which may include expulsion from the College. A student who cooperates with one or more persons in an act of dishonesty is subject to the same penalties. Students who witness an act of dishonesty are expected to report it to the appropriate campus official(s), with the full assurance that confidentiality will be maintained.

TCI students are expected to adhere to the following principles:

A. Work presented to instructors to fulfill course requirements (papers, assignments, examinations, etc.), must be the student’s own work. Student work must be free of plagiarism.* Accessing another student’s computer file, with or without consent, also constitutes plagiarism.*

B. Appropriate documentation (i.e., footnotes or other means of attribution, bibliography) must be provided in order that material cited from works consulted by the student is duly acknowledged.

C. Instances in which work is submitted for credit in two or more courses must have the prior approval of the instructors involved.

D. Each student is expected to use the library, computer laboratories and other College facilities in such a way that others may have equal access to these resources for study and research.

Violations of any of the principles of academic integrity could result in penalties up to and including a course grade of F and/or suspension or dismissal from the College.

ACADEMIC POLICY

In addition to these ethical principles, TCI takes pride in preparing students to enter careers and continue study of the latest technological developments. For these reasons, the College adheres to the following code of ethics regarding technology and computing:

A. Hardware, software and laboratory equipment are meant for the proper use of all members of the TCI community. All such equipment must be treated with respect and maintained in good condition.

B. The rights of companies and individuals must be respected as they relate to technology. TCI believes in protecting the copyrights and proprietary secrets of manufacturers as mandated by applicable laws.

C. Data are to be made available and used in the pursuit of knowledge. However, secure databases and private information about individuals must be respected. The Internet is available as an educational resource with the general purpose of assisting students in achieving their academic and personal goals. In this context, any use of hardware or software for personal financial gain, which abuses the rights of others, or which damages or alters the hardware or software, is strictly prohibited.

Consequences of Violating TCI’s Academic Integrity Policy

Instructors are permitted to question students who are suspected of academic dishonesty. Some cases may be handled between the instructor and the student(s) involved. In other cases, a divisional dean may be consulted, or the matter may be brought before the Office of Student Affairs.

The College encourages instructors to report instances of academic dishonesty to the Office of Student Affairs. Students who observe instances of cheating are encouraged to report them to the instructor. Instructors are encouraged to submit a written report to the Office of Student Affairs, with a copy to the student(s) involved, detailing actions that they have taken in response to cheating incidents. The student(s) have the right to attach a statement to the report.

All such reports will be kept confidential in the Office of Student Affairs, and will be used only for the purposes of dealing with instances of academic dishonesty. Students’ rights of appeal are detailed in the Office of Student Affairs.
ATTENDANCE / PUNCTUALITY

There is a strong correlation between class attendance/punctuality and academic success. Students are expected to attend each and every class for which they are registered, arrive on time, and complete all assigned work and examinations related to those classes. Students who are absent are responsible for all missed class work. All course requirements must be fulfilled, and students are responsible for the entire content of the course.

Instructors inform students of attendance/punctuality policies during the first class meeting of the semester. Students who are absent from an examination or a laboratory experiment may request a makeup exam or experiment from the instructor.

Because each instructor takes class attendance on-line, the College can readily contact students who show multiple absences. Students who demonstrate a pattern of absences in their classes may be contacted by the College and offered assistance in resolving the issues that have led to their non-attendance.

The attendance policy for students requires that they regularly attend their classes during the entire semester. For new students, attendance will be strictly monitored during the first four weeks. Those that do not attend regularly during that time may be dropped from the College or reduced to part-time. Students withdrawn completely will not have an academic record nor a tuition liability.

In addition, if at any time through the ninth week, a student is absent from a single class for four consecutive weeks, the College will administratively withdraw the student from the class and restricts the student from re-entering until the student has received approval to do so from Student Affairs. Moreover, if at any time through the ninth week, a student is absent from all classes for three consecutive weeks, the College will administratively withdraw the student from the institution. In that case, the student must receive permission to be re-instated by Student Financial Services and Student Affairs. Students who, after the ninth week stop attending any classes, will receive a letter grade, based on the individual determination of the instructor.

Students in non-degree programs may have different procedures and requirements which will be made available whenever such programs are offered.

Class instructors have the right to render the final judgment on the effect that a student’s poor attendance/punctuality may have on the final letter grade received in the course.
Conferral of the degree of Associate in Applied Science (A.A.S.) or Associate in Occupational Studies (A.O.S.), or the award of a certificate by TCI requires completion of all program requirements with a minimum cumulative grade point average (GPA) of 2.0. Formal graduation ceremonies are held following each spring semester.

Students should refer to the “Academic Programs” section of the catalog for the specific requirements of their major.

Before a student who has been admitted under the Ability-to Benefit (ATB) program is awarded his/her degree, the student must submit a copy of the GED diploma to the Registrar’s Office no later than two (2) weeks before the graduation ceremony. Any submissions after the cut-off date will be processed for the next graduation cycle.

**Graduation Ceremony Clearance Requirements**

In order to participate in the graduation ceremony the candidate must have completed all of his/her degree requirements, submitted the GED diploma to the Registrar’s Office (if required), and submitted their completed Prospective Graduate Form to the Registrar’s Office.

**Receipt of Degree or Certificate**

In addition to meeting academic requirements, students must be cleared by the Offices of Student Financial Services and Career Services before they are eligible to receive a degree or certificate. These respective offices will advise students of any requirements that must be met during the last semester of study.

**Graduation with Honors**

The College awards degrees with honors to graduates who meet specified standards of academic excellence. The honors designation is noted on both the student’s diploma and academic transcript. In addition, students receive special recognition during commencement exercises. In order to be considered an honors graduate, a student must meet one of the following criteria:

<table>
<thead>
<tr>
<th>Honors Designation</th>
<th>Required Minimum Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summa cum laude</td>
<td>3.90</td>
</tr>
<tr>
<td>Magna cum laude</td>
<td>3.70</td>
</tr>
<tr>
<td>Cum laude</td>
<td>3.50</td>
</tr>
</tbody>
</table>

**Graduation Requirements for Ability to Benefit Students**

Students admitted to the College under the ability to benefit program must complete 24 semester hours of college coursework, distributed in subjects in accordance with requirements set forth by the New York State Department of Education, to obtain a High School Equivalency Diploma and to earn a degree from TCI.

**English Language Arts** (6 credits required)

- ENG-100; EN-101S; ENG-101; ENG-102; ENG-202;
- HUM-110 or HUM-199; LIT-###
  - 3 credits each

**Mathematics** (3 credits required)

- BUS-100; BUS-101; MAT-111; MAT-112;
- MAT-115; MAT-120; MAT-130; MAT-212
  - 3 credits each
- MAT-135; MAT-140; MAT-210
  - 4 credits each

**Humanities** (3 credits required)

- ART-111; ART-112; ART-213; HUM-101; HUM-107; HUM-108;
- HUM-111; HUM-204; HUM-205; HUM-207; HUM-211; LIT-###
  - 3 credits each
- HUM-208; HUM-209
  - 4 credits each
Natural Science (3 credits required)
   BIO-101; BIO-211; ERS-101; PHY-101  3 credits each
   BIO-109; BIO-111; PHY-102; PHY-201  4 credits each

Social Science (3 credits required)
   ECO-101; ECO-111; HIS-###; PSY-101; SOC-101  3 credits each

Degree Program Courses (6 credits required)
   Any course that is part of the program’s requirements  varies by degree

Since some of these courses fall outside of degree requirements in most programs of study, students are advised to plan their course schedule each semester with this in mind. Completion of all course requirements for the High School Equivalency Diploma and the degree being pursued may require more than four semesters of study for some students.

Transfer Opportunities

Credits earned while enrolled in TCI’s Associate in Applied Science (A.A.S.) degree programs are transferable to a number of bachelor degree programs. Associate in Occupational Studies (A.O.S.) degrees have nearly all coursework in the occupational field and forego much of the liberal arts and general education coursework required for general transferability. As a result, transfer options are limited for A.O.S. degree holders. Students interested in pursuing transfer opportunities should correspond directly with the college to which transfer is desired.

COLLEGE ARTICULATION AGREEMENTS

TCI has formal articulation agreements with the following colleges.

<table>
<thead>
<tr>
<th>TCI Major</th>
<th>College or University Name</th>
<th>Bachelor’s Degree</th>
<th>Credits Accepted For Transfer to Baccalaureate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Technology, AAS</td>
<td>Berkeley College</td>
<td>Bachelor of Business Administration, Accounting</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>DeVry College</td>
<td>Bachelor of Business Administration, Accounting</td>
<td>36 credits</td>
</tr>
<tr>
<td></td>
<td>Empire State College*</td>
<td>Bachelor of Science, Accounting</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Metropolitan College of New York</td>
<td>Bachelor of Science, Business Administration</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Monroe College</td>
<td>Bachelor of Business Administration: Business Management, Accounting, and Bachelor of Science in Computer Information Systems</td>
<td>All credits</td>
</tr>
</tbody>
</table>
## COLLEGE ARTICULATION AGREEMENTS (Continued)

<table>
<thead>
<tr>
<th>TCI Major</th>
<th>College or University Name</th>
<th>Bachelor’s Degree</th>
<th>Credits Accepted For Transfer to Baccalaureate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Administration, AAS</strong></td>
<td>Berkeley College</td>
<td>Bachelor of Business Administration. Various concentrations available</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Empire State College*</td>
<td>Bachelor of Science Business Administration Bachelor of Science or Bachelor of Arts, Interdisciplinary Studies</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>DeVry University</td>
<td>Bachelor of Science: Business Administration</td>
<td>30 credits</td>
</tr>
<tr>
<td></td>
<td>Metropolitan College</td>
<td>Bachelor of Business Administration</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Monroe College</td>
<td>Bachelor of Business Administration: Business Management, Accounting, and Bachelor of Science in Computer Information Systems</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>St. Joseph’s College, School of Adult and Professional Education</td>
<td>Bachelor of Science: General Studies, Health Administration or Organizational Management</td>
<td>60 credits</td>
</tr>
<tr>
<td><strong>Digital Media Arts, AAS</strong></td>
<td>New York School of Career and Applied Science (NYCAS), a division of Touro College</td>
<td>Bachelor of Science, Multimedia Design</td>
<td>All credits</td>
</tr>
<tr>
<td><strong>Electronics Engineering Technology, AAS</strong></td>
<td>Empire State College*</td>
<td>Bachelor of Science Interdisciplinary Studies</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>State University of New York Institute of Technology (SUNYIT)</td>
<td>Bachelor of Science Electrical Engineering Technology</td>
<td>Under review</td>
</tr>
<tr>
<td></td>
<td>New York Institute of Technology</td>
<td>Bachelor of Science Electrical and Computer Engineering Technology and Telecommunications</td>
<td>Under review</td>
</tr>
<tr>
<td></td>
<td>Pratt Institute, School of Architecture Brooklyn, New York</td>
<td>Bachelor of Professional Studies in Construction Management or Bachelor of Science in Construction Management</td>
<td>33 credits</td>
</tr>
</tbody>
</table>
## COLLEGE ARTICULATION AGREEMENTS (Continued)

<table>
<thead>
<tr>
<th>TCI Major</th>
<th>College or University Name</th>
<th>Bachelor’s Degree</th>
<th>Credits Accepted For Transfer to Baccalaureate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Information Technology, AAS</td>
<td>Berkeley College</td>
<td>Bachelor of Business Administration, Health Services Management</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Empire State College*</td>
<td>Bachelor of Science or Bachelor of Arts, Interdisciplinary Studies</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Metropolitan College of New York</td>
<td>Bachelor of Business Administration in Healthcare Systems Management</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Monroe College</td>
<td>Bachelor of Business Administration in Healthcare Services Administration</td>
<td>All credits</td>
</tr>
<tr>
<td>Heating, Ventilation, Air Conditioning and Refrigeration Technology, AOS</td>
<td>Ferris State University, Big Rapids, Michigan</td>
<td>HVAC/R Engineering Technology</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Pratt Institute, School of Architecture, Brooklyn, New York</td>
<td>Bachelor of Professional Studies in Construction Management or Bachelor of Science in Construction Management</td>
<td>42 credits</td>
</tr>
<tr>
<td>Human Services, AAS</td>
<td>Empire State College*</td>
<td>Bachelor of Arts, Mental Health Services and Trauma Bachelor of Arts, Human Development Bachelor of Science or Arts, Interdisciplinary Studies</td>
<td>All credits</td>
</tr>
<tr>
<td></td>
<td>Metropolitan College of New York</td>
<td>Bachelor of Professional Services</td>
<td>63 credits</td>
</tr>
<tr>
<td>Industrial Electronics Technology, AOS</td>
<td>New York City Technical College</td>
<td>Telecommunications Technology B. Tech Program</td>
<td>30 credits</td>
</tr>
<tr>
<td></td>
<td>Empire State College*</td>
<td>Bachelor of Science Interdisciplinary Studies</td>
<td>All credits</td>
</tr>
<tr>
<td>Networking Technology, AAS</td>
<td>Mercy College</td>
<td>Bachelor of Science Cybersecurity</td>
<td>61 credits</td>
</tr>
</tbody>
</table>
**COLLEGE ARTICULATION AGREEMENTS (Continued)**

<table>
<thead>
<tr>
<th>TCI Major</th>
<th>College or University Name</th>
<th>Bachelor’s Degree</th>
<th>Credits Accepted For Transfer to Baccalaureate Degree</th>
</tr>
</thead>
</table>
| Networking Technology, AAS | New York School of Career and Applied Studies (NYCAS)  
ap division of Touro College | Bachelor of Science                                    | All credits                                           |
| Paralegal Studies, AAS   | Berkeley College                                                  | Bachelor of Science, Legal Studies                     | All credits                                           |
|                         | Empire College*                                                   | Bachelor of Science or Bachelor of Arts, Interdisciplinary Studies | All credits                                           |

*Empire State College offers a degree in Interdisciplinary Studies that combines elements from more than one of the college’s 12 areas of study.

**Note:** All colleges may deny the transfer of courses with grades C- or lower.

Students who wish to read the articulation agreements should contact the Provost’s office (212) 594-4000 x 5770
Mission

The Department of Career Services’ mission is to assist students in making informed decisions about their careers, identify employment opportunities for students, and provide students with the skills they need to complete a successful job search. Planning a career is a long-term process, and students are encouraged to understand and use the services available in Career Services throughout their education at TCI.

Job Placement Assistance

Career Services maintains relationships with companies in the tri-state area. Occasionally, the office is able to solidify employment opportunities in other states when these companies have multiple work locations. The staff actively develops employment opportunities for graduates through company visits, resume referrals, and other outreach. Graduates’ resumes that match job order specifications are forwarded to employers; employers select graduates to interview and contact them either directly or through Career Services.

Job placement assistance is available to all students and graduates. The level of assistance will depend on how much you work with Career Services. Once students/graduates complete the Career Seminars (JOB 100, JOB 200, and JOB 300) and get their resume approved, they will be able to use our Résumé Referral service and be invited to future Career Fairs. This is, however, dependent on when they graduate.

All students and graduates should take advantage of our programs and services:

- Career Advisement including Résumé Critique
- Career Seminars (job-readiness workshops)
  * Topics include: resume writing, writing cover letters and thank you letters, job search strategies, internship/volunteer discussion, dressing for success, interviewing techniques, on-the-job success, Career Fair strategies, employment trends, continuing education options, and special presentations by industry professionals.
- Résumé Lab
- Mock Interviews
- Résumé Referrals
- Career Fairs
- Cooperative Education/Internship Program

Through these programs and services, each student and graduate will have the opportunity to obtain the professional skills and tools necessary to effectively penetrate a competitive job market.

Career Seminars are non-credit bearing classes and are presented by the Career Services staff. For more information about these seminars and the schedule, please visit www.tcicollege.edu/page/career-seminars.
Résumé Referral
Career Services develops and maintains ongoing relationships with employers interested in hiring TCI graduates. Graduates who have completed all Career Seminars and submitted an approved resume to their Career Services Specialist will have their resumes on file for Career Services to send to employers seeking candidates.

Career Fairs
Career Services hosts Career Fairs at major venues like New York’s Hotel Pennsylvania for eligible students, graduates, and alumni. All participants must have completed the Career Seminars, met with their Career Services Specialist, and have an approved resume on file.

Career Advisement
Career Services Specialists are available to meet individually and discuss questions students may have regarding services or programs offered by Career Services. This service is available by appointment. Walk-in service may be possible depending on staff availability. It is recommended that all graduating students meet with their Career Services Specialist prior to completing their last semester (if not sooner). This service is available to all students.

Mock Interviews
Students who wish to practice their interviewing skills are encouraged to participate in a mock interview. The mock interview is conducted like a real interview by a Career Services staff member using an authentic job posting. The student is expected to make an appointment, dress professionally, and bring a copy of his or her resume to the “interview.” The student will afterwards receive detailed feedback on his or her interviewing skills, including what was done correctly and what needs improvement. This service is available to all students.

Résumé Lab
The Résumé Lab is a walk-in service available during specific hours during the semester (visit Room 300 for times). The lab is monitored by a Career Services staff member. It is designed to help all TCI students develop the best possible resume. Specials workshops (TBA) will also be available during the semester. Students may also make an appointment with a Career Services Specialist to discuss his/her résumé. This service is available to all students.

Cooperative Education/Internship Program
Cooperative Education/Internship allows students to put classroom theory into real world practice through on-the-job work experience. Make an appointment with the Internship Manager to learn how you can get started in your internship search. Please Note: If you wait until your last semester to begin your search, it will be very difficult to obtain an internship. Students are encouraged to seek and identify internship opportunities regardless of whether or not they work with Career Services.

In today’s competitive job market, employers often require candidates to have some previous experience in the field, even at the entry-level. The Internship program helps students to bridge the experience gap between their degree and employer expectations. Students who obtain internships not only have a chance to gain hands-on experience in their industry, which will boost their skills and strengthen their resume, but they also have the opportunity to represent TCI as field ambassadors, showing the caliber of professionals graduating from this school.
Students interested in pursuing an internship should attend an internship orientation. They must complete all recommended Career Seminars (JOB 100, 200, and 300). These seminars assist students with professional development and help guide them through the internship search process. Also, students will work one-on-one with the Internship Manager to polish their resumes, prepare strong cover letters, and practice interviewing skills. The Manager will then assist students in finding suitable internship opportunities that will give them optimal exposure to work within their field. Students are required to work a minimum of 10-15 hours per week at their internship, but may work more based on mutual agreement with the employer. Students may also receive academic credit for their internship depending on their major.

The Internship Manager actively cultivates and maintains relationships with employers across multiple industries to provide placement opportunities for TCI students. Ultimately, it is up to the employer to choose the candidates. Based on the guidance provided by the Internship Manager, students should also identify internship opportunities on their own. The communication between the student and Internship Manager is instrumental in meeting any deadlines and increasing the probability of obtaining an internship.

If you need more information or have any questions, please visit Room 300 or check us out online at www.tcicollege.edu/career-services. You may also email us at CareerServices@tcicollege.edu.
**Student Affairs**

The mission of the Office of Student Affairs is to empower students to perform to the best of their abilities and to enhance their academic and social experience at TCI and beyond. During the admissions process, the Office of Student Affairs provides guidance in selecting a program of study. Throughout the student’s course of study, the Office of Student Affairs provides guidance, including referrals to TCI’s other student service offices.

**Student Life**

The Office of Student Activities is dedicated to improving the quality of life for TCI students. Students can participate in events, organizations and activities that stimulate thought, provide entertainment, teach leadership skills and bring a sense of community to the campus. The Office of Student Activities coordinates these events with the TCI Student Government Association.

**Making Connections at TCI**

TCI has many departments to serve student needs. The Office of Student Affairs in Room 101 assists students in identifying and contacting these departments. It also provides students with information about student clubs and other organizations.

**Add/Drop/Withdrawal Advising**

Students who wish to withdraw from one or more courses must meet with a Student Affairs counselor. A counselor’s approval is needed to ensure that students are aware of the implications of their action prior to withdrawing from a course or their program of study.

**Languages Spoken in the Office of Student Affairs**

Student Affairs counselors and staff speak the following languages: Chinese (Mandarin and Cantonese), Polish, and Spanish.

**Immigration Issues/Assistance for F1 Visas**

Recognizing that international students have special needs, TCI created the Office of International Students. This office provides academic guidance and support. Immigration law in the U.S. is complicated. International students are advised to see TCI’s International Student Advisor prior to each change in their status (i.e., leaving or reentering the United States), and to ascertain the academic requirements necessary to remain in good standing with the U.S. Citizenship and Immigration Services. TCI is authorized under Federal Law to enroll non-immigrant alien students (F-1 Visa). The Office of International Students assists applicants with the processing of the USCIS I-20 Form that is needed to apply for a Student Visa. This process requires the student to submit a variety of documents for approval by the College. The Office of International Students then prepares the I-20 Form for submission to the appropriate consular office for issuance of the student visa.

**Advocacy, Assistance and Referrals to Substance Abuse Counseling**

Student Affairs counselors provide students with the support necessary to improve the quality of their lives. The college years can be a time for personal as well as intellectual growth. In a confidential setting, TCI’s counselors work with students to resolve personal problems that interfere with their academic progress. If outside assistance is needed, the counselors furnish these students with referrals to appropriate agencies. Counselors also organize workshops that propose a range of techniques for accomplishing change and fulfilling lifetime goals.

The Office of Student Affairs has a counselor who is knowledgeable about issues involving alcohol and drug abuse. This counselor coordinates referrals for assistance in these areas and can be visited with or without an appointment.
STUDENT GOVERNMENT

Officers of Student Government are elected for a one-semester term. To be eligible to run for office, students must maintain a 3.0 grade point average or higher. Student Government represents the needs of TCI students and works cooperatively with the faculty and the administration to improve the quality of student life at the College.

The Student Government office is located in the student lounge on the concourse level of the main building. All students interested in working with representatives of the student body are welcome to visit the office to get more information about Student Government activities.

The Student Government serves as a liaison between the student body and all other divisions of the school administration, faculty, and students. The Director of Student Activities advises the Student Government Association.

DARE TO DREAM/DARE TO REPAIR

Founded by TCI Instructor, Robert Lubell, Dare to Dream/Dare to Repair is a student organization that provides opportunities for students to use their practical skills in service to the community. Typical projects include repairing and upgrading used and outdated computers, which are then distributed to community-based organizations and needy families whose children are designated by local school officials. In addition, Dare to Dream students repair air conditioners for needy, elderly residents in the community. Dare to Dream/Dare to Repair is open to all TCI students.

STUDENT ACTIVITIES

The Student Activities Department works closely with Student Government to plan exciting events each semester. Most events are free. Together we provide entertainment in a fun social environment. We also sponsor lectures and workshops that are directly related to the many programs offered here at TCI.

For the Fall Semester TCI is piloting a new schedule for student advising and activities. All activities are scheduled during a free period called SAC Hour which is held on Wednesdays, from 11:00 am – 11:55 am and during the Faculty Development hour from 12:15 pm – 1:10 pm. On campus events are held in either the Student Lounge or Room C-70.

The following are some of the exciting events and activities we have available:

Welcome Week

At the beginning of each semester, Student Activities and Student Government welcomes new and continuing students with a breakfast, and 2 welcome week events which include air brush tattoos, wacky photos, cotton candy, popcorn and nachos. The evening students are treated to coffee, tea and donuts.

Lectures and Workshops

Student Activities and Student Government sponsors lectures, workshops and seminars. Topics include, Money Management, Stress Management, Diet and Nutrition, Time Management, Professional Development, Women’s Self Defense, CPR Training and Health Fairs. Club and Organizations also provide guest speakers to speak on topics related their interests and majors.
Entertainment
Every semester, Student Activities has a variety of entertainment and novelty acts which include: Wheel of Fortune Game Show, Deal or No Deal Game Show, Ding Dong for Dollars, Casino Night, Battle of the Sexes, Talent Shows, Magicians, Game Day, Bingo, Poetry Slams, Halloween Party, End of Semester Celebration, Valentine’s Day Balloon and Bake Sale, Black History Month Events, Latino Heritage Events and Women’s Day Events.

Comedy Shows
Twice a semester, nationwide comedians perform at TCI. These comedians have been featured on BET Comic View, Comedy Central and Caroline’s Comedy Club.

Trips
During the summer months, Student Activities takes students on one or more of the following trips to Six Flags Great Adventure, Hershey Park, Dorney Park, Hurricane Harbor Water Park, Camel Beach Water Park, Lazer Tag, Glow in the Dark Bowling, Shopping trips to Woodbury Common Outlet, Bear Mountain State Park, and Platzl Brauhaus State Park.

Weekend Trips
For those students looking to get away for the weekend, we also take trips to Niagara Falls, Portland, ME, Ocean City, MD, Quebec City and Montreal, Canada.

Finals Week
Finals are always stressful, during this period students can come to the student lounge to get a massage as well as coffee, tea and donuts.

Movies
During non-SAC hours, students can come to the student lounge to enjoy the latest blockbuster movies.

NBA, MLB and NFL Tickets
Professional sports tickets for Knicks, Net, Jets, Giants, Yankees and Mets are available at discounted group rates.

Student Government Professional Development
Twice a year, Student Government members attend the APCA (Association for the Promotion of Campus Activities) and NACA (National Association for Campus Activities) Conferences out of state. These conferences give the students a chance to network and exchange ideas with other SGA members as well as scout entertainment and lecturers for the college.

Student Leadership Retreats
Each semester, Club Leaders attend a leadership retreat to improve their teamwork and leadership skills. The retreat involves teambuilding rope courses, leadership training and scavenger hunts.

Cultural Organizations
TCI has many cultural organizations including the Chinese Student Club, Club Latino, and the Caribbean Club. These clubs were formed by TCI students interested in maintaining or developing a cultural awareness of their homelands outside of the U.S.
Club Day
Every semester, students can sign up for a Club/Organization which include: Auto Club, ASHRAE, Baseball Club, Beta Iota Lamda, Chinese Club, Club Latino, Comic Book Club, Entrepreneurs Club, Fitness Club, FMSA, History & Government, Health Information Club, Human Services Club, IT Cert Club, Multimedia Club, Paralegal Club, Psychology Club, Photography Club, TCI Players Acting and Theater, TCI Veterans Club, Women in Technology and Yoga Club.

Any student requesting information about the following organizations and clubs and/or would like to start a organization/club should speak to the Director of Student Activities in the Student Lounge area. Below is a brief description of a few of the clubs mentioned here:

Entrepreneurship Club
This organization provides an opportunity for students and alumni who are interested in entrepreneurship to exchange ideas and meet entrepreneurs. The club’s mission is to provide tools, ideas, and a supportive community that encourages entrepreneurship.

Facility Management Student Association (FMSA)
This Club is an organization for students majoring in Facilities Management Technology.

History and Government Club
“Inquiring minds want to know”. With this credo in mind the History and Government Club was created to acquaint students with civil government and constitution.

HSE Club
The Human Services Club and the program are committed to the enhancement of human development across the lifespan. This club involves our students in reaching out and using their skills to meet the needs of the community, and provides a medium for cooperation and communication among the students.

IEEE Computer Club
The Computer Club offers its members many computer-related courses such as advanced BASIC, C++, and JAVA, as well as tutorial services.

ITCert+ Club
Many organizations have introduced independent, industry-related certifications to confirm that prospective job applicants have familiarity with the skills required to complete a job. The ITCert+ Club makes students aware of these certifications, communicates marketplace expectations and works with students to help prepare them for taking the certification exams. Students organize Plug-N-Play competitions and field trips.

Multimedia Club
The Multimedia Club provides opportunities for students to learn the latest programs in graphics and other technological developments.

Paralegal Club
The Paralegal Club provides opportunities for TCI paralegal students to network and explore the legal profession. Meetings are held to discuss topics of interest, bring speakers to share their thoughts, knowledge, and experience; and we provide for the intellectual as well as social needs of the student. In addition, the club finds ways to improve skills and competencies through the newsletter, lectures, and other activities.
Photography Club
The TCI Photography Club encourages and supports the creative aspirations of the TCI community in the field of photography. Club members will learn how to use photographic images for expression and communication. Club activities will include lectures, studio practice, and field trips, as well as opportunities for the members to present their work in local and international photography exhibitions.

Security Management Club
To achieve its mission the Security Management club will provide students with the opportunity to develop the skills and knowledge required for entry into the security management and criminal justice fields. The club hosts guest speakers, field trips and community outreach initiatives. While predominantly all members are Security Management Technology students, the club is open to the entire TCI community.

TCI Veterans Club
Helping others is what this club is all about. We want to provide a place where veterans can network, adjust to student life and have fun. We invite all veterans to please join us in making it be about you.

Women in Technology
This club was created to counsel, guide and help female students be integrated in nontraditional and technical programs.
PROFESSIONAL ORGANIZATIONS FOR STUDENTS

The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
The American Society of Heating, Refrigeration and Air Conditioning Engineers is the leading force for advances in energy technology related to environmental control in the world today.

ASHRAE offers students opportunities to pursue their early interests in an energy-industry career. Student members receive the important “Fundamentals Volume” of the ASHRAE Handbook along with monthly issues of the ASHRAE Journal. They receive invitations to local chapter meetings where they can meet energy industry employers and benefit from hearing guest and member speakers.

Student members can participate in an annual student paper competition and win local, regional, and international awards of up to $1000 and a trip to the society’s international meeting.

Electronics Technicians Association (ETA)
The ETA offers educational and job search services, national licensing exams sponsorship on campus, and social activities, such as the annual student/faculty softball game for students in the Industrial Electronics Technology (IET) program.

The Institute of Electrical and Electronics Engineers, Inc. (IEEE)
The Institute of Electrical and Electronics Engineers, Inc. is the world’s largest professional engineering society and offers student membership.

The benefits of IEEE membership include free subscriptions to Spectrum, a magazine for engineers and technologists; Potentials, a magazine for students; and Institute and Monitor newspapers.

Psi Beta
Psi Beta is the National Honor Society in Psychology for Community and Junior Colleges. The purpose of Psi Beta is to recognize, stimulate, and encourage scholarship and interest in Behavioral Sciences among students on Community and Junior colleges as well as to nurture academic excellence in all fields of study.

Tau Alpha Pi
Tau Alpha Pi is the national honor society for engineering technology. Tau Alpha Pi membership is open to electronics engineering students who have obtained a grade point average of 3.5 or higher after the completion of 30 credits.
STUDENT CODE OF CONDUCT

TCI is a community within the larger communities of New York City, New York State and the United States. Local, state and federal laws apply to the TCI community, as well as additional rules that are specific to academic environments. When students, faculty, or staff choose to associate themselves with TCI, they do so freely, and implicitly confirm their commitment to a philosophy of mutual tolerance and respect. The conduct and performance of every student in the community is evaluated on an individual basis. If the action of a student interferes with the College’s functioning, TCI may find it necessary to suspend or terminate that student.

Student Identification Procedure

All members of the TCI Community are required to present their official college identification cards upon entering the main building or any of the TCI Annexes or Extension Site. This ensures that only individuals with legitimate business enter the college premises. Lost identification cards may be replaced in the Office of Credentials Verification and Assessment, Room 143.

No Smoking Policy

In conformity with New York City municipal codes, TCI is a “no smoking” institution, and smoking is strictly prohibited. Anyone found to be in violation of these codes is subject to fines and/or other disciplinary actions.

Student Attire

Students are expected to dress in a manner that is consistent with a college environment. Students who are dressed inappropriately may be referred by a college representative to the Office of Student Affairs.

STUDENT BILL OF RIGHTS

Students have rights as members of the college community. These include the right to:

- pursue free inquiry and expression,
- receive at the beginning of each course: course syllabi, evaluation procedures and evaluation criteria,
- expect a competent presentation of the course material,
- take reasoned exception to the data or views offered in any course of study. However, students are responsible for learning the content of any course of study for which they are enrolled,
- be evaluated solely on relevant criteria as described in the course outline and be protected from arbitrary or capricious academic evaluation,
- request and receive timely assessment of their academic work (homework, tests, quizzes, reports, projects) from the instructor,
- request and receive timely reviews of their grades from the instructor,
- file a formal complaint without fear of retribution if they believe their rights have been violated, and
- be protected from improper disclosure of their student records.
TCI CODE OF ETHICS FOR COMPUTER SOFTWARE TECHNOLOGY

Computer software technology facilities (computer hardware, software, networks, etc.) are made available at TCI as shared resources intended to support and facilitate the teaching, research, and administrative functions at the college. Students, faculty, staff, and authorized guests are encouraged to use these resources to their maximum benefit in these functions. Research, exploration, and learning are promoted within common sense and legal constraints.

Facilities should not be used in any manner prohibited by law or disallowed by licenses, contracts, or College regulation. Individuals are accountable for their own actions and all activity involving the accounts for which they have responsibility. College policies and state and federal law make certain kinds of activities involving computer software technology either abuse, civil offenses, or criminal offenses. Students, faculty, and staff should be aware that criminal prosecution may occur if the law is violated. Examples of misuse include, but are not limited to, the following:

Use of Computer Software Technology Resources Without Permission

- Informing anyone of the password to your personal, non-transferable account [Never tell anyone your password! If you do so, you are in violation of this code. If someone else uses your account, they are in violation of this code. If access by another person to files protected by your account password is needed, consult with the IT staff for approaches that do not compromise password security.];
- Access and attempts to access files, disks, or network communications other than one's own without appropriate permission;
- Interference with any computer software technology system or another's use of any system, including consuming gratuitously large amounts of resources (storage space, processor time, network capacity, etc.) or by deliberately causing the failure of a system resource (overwhelming mail, deliberately crashing a computer system, corrupting a disk drive on a shared computer, etc.);
- Use of any College resource as a staging ground to crack (hack, break into) any other system without permission;
- Sending threatening messages or other material intended to harass;
- Theft, including the illegal duplication of copyrighted material, or the propagation, use, or possession of illegally copied software or data;
- Damaging files, networks, software, or equipment;
- Misrepresenting one’s identity (forgery), plagiarism, and violations of copyright, patent, or trade secret laws;
- Deliberate creation, distribution, or use of any software (viruses, worms, letter bombs, etc.) designed to maliciously destroy data and/or disrupt services.

NON-DISCRIMINATION POLICY

Equal Opportunity Education and Employment

No person may be denied admission to, participation in, employment at, the benefits of, or be discriminated against in any service, program, course, or facility of the Technical Career Institutes (TCI College of Technology) because of the person's political affiliation, age, race, creed, religion, color, handicap (disability), marital status, parental status, sex, national origin, ancestry, sexual orientation, pregnancy, arrest record, service in the armed forces, genetic testing, or use or non-use of lawful products off the College premises during non-working or non-class hours. As such, all College services will be provided in a non-discriminatory manner and in a climate which is conducive to, and supportive of cultural and ethnic diversity.
The contact information for Title IX Coordinator is Ms. Shirley Erves, Director of Human Resources, Room 112 (Main Campus), 212 594-4000 ext. 5265, serves@tcicollege.edu. The contact information for the 504 Coordinator is Ms. Anny Garcia, 212 594-4000 ext. 5271, agarcia@tcicollege.edu.

Office of Disability Services
The Office of Disability Services ("ODS") is present to assist TCI in ensuring that students with disabilities are given access to the same, or equal, educational opportunities available to other TCI students, as mandated by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (together referred to as the “ADA”). Guidance and assistance is provided to both students with disabilities and to all others in the TCI campus community so that students are not discriminated against, due to their disability, in policies, procedures, and practices of TCI.

The Office of Disability Services is located in Student Affairs, Room 101 of the Main Campus on West 31st Street.

If you are a student with a disability and believe you require an accommodation you must self-identify as a person with a disability and apply for services with the Office of Disability Services (ODS). Please give the ODS ample time to arrange for the necessary accommodations to be in place before you need them. For more information, including the disability grievance procedure, contact the ODS or visit the Web site at www.tcicollege.edu – Disability Services is located under the Resource tab.

ADA Grievance Procedures
Students who have complaints regarding TCI’s provision or denial of reasonable accommodations may utilize the following procedures.

Informal Complaint Process
The complainant should first attempt to resolve the matter informally by requesting a conference with the Office of Disability Service (“ODS”) and other appropriate employees; i.e., this includes the instructor if the complaint is about a classroom accommodation that was or was not provided. If the matter is not resolved, a request for reconsideration may be made through the normal administrative channels (Department Chair, Divisional Dean, Provost/Vice President for Academic Affairs or Administrative Dean, as appropriate). Complainants are encouraged to use the informal complaint process, but the informal complaint process is not a prerequisite to the filing of a formal grievance.

Formal Grievance
A complaint must be filed in writing by filing an ADA/504 Formal Grievance Form at the ODS, Room 101 at TCI’s main campus, within 15 working days of the date of the occurrence giving rise to the complaint. The complaint shall contain the name, address, telephone number and e-mail address (if applicable) of the person filing it, and describe the alleged violation with as much detail as possible, including the date of the occurrence complained of, the person(s), and department involved.

The complaint shall be forwarded by the ODS to the appropriate TCI department for conference and resolution efforts with the complainant, using normal administrative channels (Department Chair, Divisional Dean, Provost/Vice President for Academic Affairs or Administrative Dean, as appropriate). These resolution efforts shall not exceed 20 working days after the filing of the complaint.

Within 10 working days after the conclusion of the 20 working day period or the date of the final departmental resolution effort, whichever date is earlier, the dean, vice president, etc., as appropriate, shall render a written decision and forward a copy to the complainant.

If the complainant is not satisfied with the decision and wishes to file an appeal, the complainant shall notify the ODS within 10 working days of the date of the decision.
The ODS will conduct an investigation and attempt to resolve the grievance. The investigation will afford all interested persons and their representatives, if any, an opportunity to submit evidence relevant to a complaint. The ODS will notify the complainant in writing of its decision within 15 working days after receipt of the appeal.

The student need not be present at any conference, except where the student requests another person to represent him/her at the conference. An individual designated by the student may represent the student at the conference, provided the student is also present, at the discretion of and to the extent permitted by TCI.

If the complainant is dissatisfied with the ODS decision, he/she may appeal to the appropriate college officer (President or Provost/Vice President for Academic Affairs, as appropriate), whose decision will be final. The complainant must deliver a written appeal to the appropriate college officer within 10 working days of issuance of the ODS decision.

The appropriate college officer will conduct an investigation within 10 working days after receipt of the appeal request, which may include a conference with the student. He/she will render a decision and the reasons for it in writing within 20 working days following the receipt of the appeal request. He/she may affirm, reverse or modify the ODS decision in whole or in part.

Dates may be extended with the permission of all parties concerned.

Although you are encouraged to try to resolve grievances within the campus process, you also have a right to file a complaint with the Office of Civil Rights at any time.

**DISCIPLINARY POLICIES AND PROCEDURES**

The disciplinary process at TCI is based on the principles of fairness for all concerned, and strives to promote the educational goals of the academic community. Details of the College’s disciplinary procedures are explained in Technical Career Institutes’ Policies & Procedures on Campus Security, Sexual Harassment, Anti-Drug and Alcohol Abuse, which can be obtained in TCI’s Library, the Human Resources Office and the Office of Student Affairs.

**PROCESSES FOR APPEALS AND COMPLAINTS**

*Procedures for Appealing Grades and Other Academic Issues*

The individual instructor is responsible for establishing standards consistent with the guidelines established in the College catalog, and assigning grades to student work. Furthermore, at the beginning of a course, the instructor is required to set forth clearly and in writing, a description of the course requirements, and the bases upon which students’ grades will be formulated. However, students who feel that appropriate procedures have not been followed, or that they have been graded unfairly, or treated unfairly in some other way, should observe the following appeals procedure:

A. First, if it is a grade complaint, the student should meet with the faculty member who assigned the grade to discuss the complaint, and request an explanation of the criteria used to determine the grade. If the student is unable to contact the instructor in a timely manner, or is not satisfied with the explanation of the grade offered by the instructor, the student may discuss the matter with the appropriate department chairperson or the dean of the division. In regard to a complaint about faculty treatment other than grades, the student may go directly to the chairperson or the dean.

B. After this discussion, if the student wishes the chairperson or divisional dean to undertake a formal inquiry, he/she must submit a written request, using the Student Complaint Form, that explains the basis for the complaint. The chairperson or dean(s) will forward a copy of the student’s complaint to the faculty member and request a written reply. Upon receipt of the
faculty member’s written response, the chairperson or dean(s) may choose to conduct a meeting with the faculty member and the student to clarify the facts of the case. The chairperson or dean will then recommend a course of action, in writing, to the instructor and provide a copy to the student.

C. If the student does not agree with the response from the dean or chairperson, he or she may appeal this decision to the Vice President for Academic Affairs. The Vice President should be provided with all the materials in the case, including the Student Complaint Form. The Vice President will recommend a course of action, in writing, to the instructor and provide copies to the chairperson, dean, and the student.

D. If the student does not agree with the response from the Vice President for Academic Affairs, he or she can appeal this decision to the President. The President should be provided with all the materials in the case, including the Student Complaint Form. The President will recommend a course of action, in writing, to the instructor and provide copies to the Vice President, chairperson, dean, and the student. The decision of the President is the final step in the TCI complaint process.

E. A student wishing to take an academic complaint to an external authority may do so after all levels in the TCI process have been tried. The TCI Student Handbook contains information on how to proceed.

Procedures for Non-Academic Issues

TCI encourages an open and frank atmosphere in which any problem, complaint, suggestion, or question can be fairly and openly discussed. To assist students in resolving issues which may arise at the College, and to promote a positive environment for students, faculty, staff, and administration, TCI has established the following problem-solving procedures:

A. A student wishing to report a non-academic issue involving a faculty member, staff member or administrator should discuss the matter first with the appropriate chair, dean, or supervisor. If the complaint is official rather than informal, the student should fill out the Student Complaint Form. The person with whom the student has an issue has the right to receive a copy of the complaint form and the right of rebuttal. The chair, dean, or supervisor may request a written response to the complaint and/or hold a hearing to clarify the facts of the case.

B. If the chair, dean, or supervisor does not resolve the issue to the student’s satisfaction, the student should contact the appropriate Vice President in an attempt to resolve the problem. The Vice President should be provided with all the materials in the case, including the Student Complaint Form.

C. If the Vice President does not resolve the issue to the student’s satisfaction, the student should contact TCI’s President in an attempt to resolve the problem. The President should be provided with all the materials in the case, including the Student Complaint Form. The decision of the President is the final step in the TCI complaint process.

D. Students who wish to take a non-academic complaint to an external authority may do so after all levels of the TCI process have been tried. The TCI Student Handbook contains information on how to proceed.

TCI will do its best to resolve student complaints for academic and non-academic issues in a timely manner with the goal of settling a formal complaint in 30 days or less. On occasion, it may take longer, especially if the complaint advances to the senior administration, as the Vice President or President may be away from the College or occupied with matters of great urgency. Records of student complaints will be retained for six years.

No student will be criticized or retaliated against for using this procedure in a cooperative manner.
SAFETY, SECURITY, AND EMERGENCIES

TCI is committed to providing a safe campus for all students and employees. To ensure safety, students and staff are required to carry a TCI identification card while on campus and show the card upon arrival at any entrance to a TCI facility. Visitors must also show proper identification and obtain a visitor’s pass. In the interest of promoting safety, all students are asked to cooperate with TCI’s security personnel.

About Personal Safety

TCI understands the concern that individuals have for their safety on campus. In the interest of maintaining a safe environment, students must adhere to the safety procedures prescribed by the College. Anyone engaged in unsafe conduct should be immediately reported to security personnel.

To Call Security

Main Building (320 West 31st Street): To contact security personnel in TCI’s main building, dial (212) 594-4000, ext. 5207. If dialing from your office phone only the extension needs to be dialed. The security desk in the main building’s lobby is staffed during all hours that classes are in session.

In Case of Emergency

In the event of a fire or similar emergency, all persons should evacuate the facility in an orderly manner. During emergency evacuations, the use of elevators is strictly prohibited unless otherwise directed. All persons should exit the building and follow the directions of campus officials, the police or fire department.

All medical emergencies should be reported to campus security. Security guards may be reached at ext. 5207 or at the front desk of the main building.
Fire Drills

Please observe these rules during fire drills:

- Remain calm.
- Close the door behind you after everyone has exited.
- Leave the building by the fire exit stairs.
- Do not use the elevators.
- Walk quickly but do not run.
- Do not congregate near building doorways.
- Clear the building in less than five minutes.

Security Report

Each fall semester, the College issues a report identifying major crimes that occurred on campus over the past three years. A copy of TCI’s Policies and Procedures on Campus Security, Sexual Harassment, Anti-Drug and Alcohol Abuse is maintained in TCI’s Library, the Human Resources Office and in the Office of Student Affairs. TCI’s Advisory Committee on Campus Safety will provide, upon request, all campus crime statistics as reported to the U.S. Department of Education. These statistics can also be found on the Department’s website at www.ope.ed.gov/security or TCI’s website at www.tcicollege.edu/security-statistics.

Inclement Weather – School Closing Information

Any unscheduled closing of the College due to inclement weather will be announced on 1010 WINS Radio five minutes after each hour from 5:00 a.m. to 9:00 a.m. on the day of the closing. In addition, any unscheduled closing will be announced in the introductory message of the College’s telephone answering system. You can access this message by dialing (212) 594-4000.

Lost and Found

TCI’s Lost and Found is located in the Office of Student Affairs, Room 101. TCI is not responsible for personal belongings.
TCI is currently accepting students into the following programs. Course listings and descriptions follow.

### DIVISION OF ARTS AND SCIENCES

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>PROGRAM NAME</th>
<th>DEGREE/ CERTIFICATE</th>
<th>HEGIS CODE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA</td>
<td>Digital Media Arts Technology</td>
<td>A.A.S.</td>
<td>5310</td>
<td>176</td>
</tr>
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</table>

### DIVISION OF BUSINESS AND LEGAL STUDIES

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>PROGRAM NAME</th>
<th>DEGREE/ CERTIFICATE</th>
<th>HEGIS CODE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>Accounting Systems Technology</td>
<td>A.A.S.</td>
<td>5002</td>
<td>83</td>
</tr>
<tr>
<td>BUS</td>
<td>Business Administration</td>
<td>A.A.S.</td>
<td>5004</td>
<td>85</td>
</tr>
<tr>
<td>PLS</td>
<td>Paralegal Studies</td>
<td>A.A.S.</td>
<td>5099</td>
<td>92</td>
</tr>
<tr>
<td>SMT</td>
<td>Security Services and Management Technology</td>
<td>A.A.S.</td>
<td>5505</td>
<td>95</td>
</tr>
</tbody>
</table>

### DIVISION OF ENGINEERING AND FACILITIES TECHNOLOGIES

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>PROGRAM NAME</th>
<th>DEGREE/ CERTIFICATE</th>
<th>HEGIS CODE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR</td>
<td>Air Conditioning and Refrigeration Technology</td>
<td>Certificate</td>
<td>5317</td>
<td>153</td>
</tr>
<tr>
<td>AUTO</td>
<td>Automotive Technology</td>
<td>A.A.S.</td>
<td>5306</td>
<td>106</td>
</tr>
<tr>
<td>BET</td>
<td>Basic Electronics Technology</td>
<td>Certificate</td>
<td>5310</td>
<td>119</td>
</tr>
<tr>
<td>EET</td>
<td>Electronics Engineering Technology</td>
<td>A.A.S.</td>
<td>5310</td>
<td>113</td>
</tr>
<tr>
<td>FMT</td>
<td>Facilities Management Technology</td>
<td>A.O.S.</td>
<td>5317</td>
<td>148</td>
</tr>
<tr>
<td>FMTC</td>
<td>Facilities Management Technology</td>
<td>Certificate</td>
<td>5317</td>
<td>150</td>
</tr>
<tr>
<td>HVAC</td>
<td>Heating, Ventilation, Air Conditioning and Refrigeration Technology</td>
<td>A.O.S.</td>
<td>5317</td>
<td>151</td>
</tr>
<tr>
<td>IETC</td>
<td>Industrial Electronics Technology – Computer Technology Track</td>
<td>A.O.S.</td>
<td>5310</td>
<td>116</td>
</tr>
<tr>
<td>NET</td>
<td>Networking Technology</td>
<td>A.A.S.</td>
<td>5104</td>
<td>127</td>
</tr>
</tbody>
</table>

### DIVISION OF HEALTH SCIENCES AND TECHNOLOGIES

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>PROGRAM NAME</th>
<th>DEGREE/ CERTIFICATE</th>
<th>HEGIS CODE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT</td>
<td>Health Information Technology</td>
<td>A.A.S.</td>
<td>5213</td>
<td>160</td>
</tr>
<tr>
<td>HSE</td>
<td>Human Services</td>
<td>A.A.S.</td>
<td>5501</td>
<td>162</td>
</tr>
<tr>
<td>OPT</td>
<td>Ophthalmic Dispensing</td>
<td>A.A.S.</td>
<td>5212</td>
<td>165</td>
</tr>
</tbody>
</table>
### ACADEMIC PROGRAMS

**As of the Fall 2012 Term, the following programs are not accepting new students.**

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>PROGRAM NAME</th>
<th>DEGREE/CERTIFICATE</th>
<th>HEGIS CODE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAF/BAK/ BAM</td>
<td>Business Administration</td>
<td>A.A.S.</td>
<td>5004</td>
<td>87-89</td>
</tr>
<tr>
<td>ESS</td>
<td>Industrial Electronics Technology – Electronic Security Systems</td>
<td>A.A.S.</td>
<td>5310</td>
<td>120</td>
</tr>
<tr>
<td>IENET</td>
<td>Industrial Electronics Technology – Computer Technology Track and Networking Technology Double Major</td>
<td>A.A.S.</td>
<td>5104</td>
<td>124</td>
</tr>
<tr>
<td>IETR</td>
<td>Industrial Electronics Technology – Railway Electronic Systems</td>
<td>A.A.S.</td>
<td>5310</td>
<td>122</td>
</tr>
<tr>
<td>OAS</td>
<td>Office Administration and Support Services</td>
<td>A.A.S.</td>
<td>5005</td>
<td>90</td>
</tr>
<tr>
<td>RNA</td>
<td>Robotics and Automation Technology</td>
<td>A.A.S.</td>
<td>5311</td>
<td>129</td>
</tr>
</tbody>
</table>

**As of the Spring 2013 Term, the following programs are not accepting new students.**

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>PROGRAM NAME</th>
<th>DEGREE/CERTIFICATE</th>
<th>HEGIS CODE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET</td>
<td>Civil and Environmental Technology</td>
<td>A.A.S.</td>
<td>5301</td>
<td>109</td>
</tr>
<tr>
<td>CST</td>
<td>Computer Software Technology</td>
<td>A.A.S.</td>
<td>5103</td>
<td>111</td>
</tr>
</tbody>
</table>

TCI’s degree and certificate programs are more fully described in the “Academic Programs” section of this Catalog.

### AUTHORIZATIONS

TCI is authorized by the New York State Board of Regents, 89 Washington Avenue, Albany, NY 12234, to confer the degree of Associate in Applied Science (A.A.S.) upon graduates of the Accounting Systems Technology; Automotive Technology; Business Administration; Civil and Environmental Technology; Computer Software Technology; Digital Media Arts Technology; Electronics Engineering Technology, Health Information Technology; Human Services; Industrial Electronics Technology – Electronic Security Systems; Industrial Electronics Technology – Railway Electronic Systems; Networking Technology; Ophthalmic Dispensing; Office Administration and Support Services; Paralegal Studies; Robotics and Automation Technology and Security Services and Management. TCI is further authorized to confer the degree of Associate in Occupational Studies (A.O.S.) upon graduates of the Facilities Management Technology; Heating, Ventilation, Air Conditioning and Refrigeration Technology; and Industrial Electronics Technology – Computer Technology programs. In addition to its degree programs, TCI awards certificates to graduates in Air Conditioning Refrigeration Technology; Basic Electronics Technology; and Facilities Management Technology.
The Core Curriculum

TCI has created a core curriculum required in each degree program to build basic competencies integral to student success. These competencies aid students in their program courses and help prepare students for the workplace environment. The Core Curriculum, shown in the table on page 83, includes Introduction to Computers (CMP-101); English Composition I (ENG-100, EN-101S, or ENG-101); Speech (HUM-110 or HUM-199); and Mathematics (specific courses vary by major).

General Education Coursework

Faculty members have chosen a required general education course sequence that is best suited to students’ needs for each major program. By offering an appropriate sequence of general education courses, each degree program challenges its students to integrate knowledge from several disciplines and to apply their learning experience in areas beyond their field of concentration. Students enrolled in general education courses are encouraged to explore and understand cultural diversity, develop ethical sensibilities, use critical thinking to analyze problems and devise a range of solutions, and research and express solutions to others.

General Education Goals

General Education course requirements vary from one major field to another. However, regardless of their major, students are required to develop skills in the following 6 areas: Communication, Quantitative Reasoning, Critical Analysis and Reasoning, Culture and Society, Technology, and Information Literacy.

In the area of Communication
Effectively communicate orally and in writing in a variety of situations

In the area of Quantitative Reasoning
Use computational skills to analyze and solve problems

In the area of Critical Thinking
Analyze and interpret complex information and ideas

In the area of Culture and Society
Successfully work in teams with people of diverse backgrounds and apply ethical principles in decision-making

In the area of Technology
Display competency in computer operation and use content-specific software for research, problem-solving, and decision-making

In the area of Information Literacy
Access information sources effectively

Division of Arts and Sciences

Most general education coursework is offered through the Division of Arts and Sciences (DAS). Courses in English as a Second Language (ESL) and college preparatory courses are also offered through the DAS. General education elective coursework is available in the disciplines of English, literature, economics, history, psychology, sociology, biology, earth science, physics, and mathematics, among others. General education requirements vary from one major field to another so students are required to check with their major departments as well as the TCI Catalog to determine when and which courses they must take.
Requirements of Accrediting Bodies
TCI is guided by the accreditation requirements for two-year colleges as set forth by the New York State Board of Regents and the Commissioner of Education, and the Middle States Commission on Higher Education. Requirements of the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC of ABET) govern the Electronic Engineering Technology program. Requirements of Accrediting Bodies and Requirements of the Commission on Opticianry Accreditation (COA) govern the Ophthalmic Dispensing Program. Requirements of the Board of Regents stipulate that programs culminating in an Associate in Applied Science (A.A.S.) degree must have a Liberal Arts and Sciences component of twenty credits. All A.A.S. degree programs meet this requirement. While programs leading to an Associate in Occupational Studies (A.O.S.) degree are not required by the Regents to meet this standard, all A.O.S. programs currently include, as a minimum, fifteen credit hours of Liberal Arts and Sciences courses in accordance with requirements of the Middle States Commission on Higher Education.

TCI’s Faculty and Academic Governance
The faculty, both full and part-time, have the opportunity to participate in the creation and implementation of the college’s educational programs and policies through several means. There are four faculty committees (Curriculum Committee, Academic Standards Committee, Professional Development Committee, and Library Committee) which recommend to the Provost/Vice President for Academic Affairs changes in the curriculum and academic policies and procedures. In addition, faculty members serve on the Strategic Planning Committee which plays a major role in defining the mission and direction of the College, and on the Labor Management Committee which considers important academic, administrative, and financial matters. Faculty representatives also attend meetings of the TCI Board of Directors.

Information Literacy
Information Literacy is taught throughout TCI’s curriculum and through several support venues. Computers and software are available to students at all times when the College is in session, both in the Library and in open labs. Assistance with assignments is available from librarians, tutors, and support technicians. Orientation to the Library is provided in the Introduction to the Major and College Seminar courses. In addition, the librarians offer in-depth training in research skills as needed and requested. Students are required to obtain public library cards in order to gain access to further educational resources. The Science, Industry, and Business Library (SIBL) of the New York Public Library is within walking distance of TCI; librarians there offer workshops on how to use its resources and are prepared to help individual students.

In Introduction to Computers (CMP-101), students are taught how to use word processing and spreadsheet software, the Internet, and e-mail. Students also learn how to access and use EBSCOhost Research Databases and other free and proprietary database services for text-based and graphic information. These services contain millions of articles and other items from thousands of different publishers delivered via the Internet. In some courses students are encouraged to develop their own web pages or prepare research assignments using information resources.

Distance Learning at TCI
Distance Learning takes place when there is a physical or time separation between the instructor’s delivery of course material and the students’ reception of it. In order to serve students who cannot commute to the TCI campus, and to add flexibility for students currently attending TCI, the College has chosen to provide two modalities of distance learning: online courses and hybrid courses.

1 New York State Board of Regents and the Commissioner of Education, 89 Washington Avenue, Albany, NY 12234.
2 Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, (267) 284-5000.
3 Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD, 21202-4012, (410) 347-7700.
4 Commission on Opticianry Accreditation, Box 4342, Chapel Hill, NC 27515, (703) 468-0566.
Online courses do not meet on campus, with the possible exception of proctored examinations. Although hybrid courses do meet on campus, they have less scheduled sessions than regular classroom courses since up to fifty percent of the course is done online. In addition, some regular classroom courses also use online activities to complement classroom instruction.

Learning how to learn in these modalities, whether they are in online, hybrid, or regular classroom courses, is recommended for all students as it may be important for future employment. Students with questions or concerns about online learning should speak with a faculty advisor, to a counselor in Student Affairs (room 101), or to the Dean of Distance Learning (room 400).

**Online Courses**

In online courses, all of the work is done via an online course management system, which is currently Blackboard. Students can access their online courses at any time of the day or night from home, libraries, computer labs, or the office. To participate in online courses, students need access to a computer with an internet connection. Many features can also be accessed via mobile devices such as smartphones and tablets.

Online classes are academically equivalent to regular on-campus courses and have the same course objectives and student learning outcomes. They count towards degrees like other TCI courses.

Online courses save the student commuting time and travel expenses, which is especially advantageous for students with challenging work commitments or family responsibilities. Online courses do require the same study-time commitments as traditional on-campus courses.

Online courses at TCI are asynchronous. That means that not everyone will be connected at the same time. One student may access a course at 10:00 am in the morning and another at 10:00 pm in the evening. This format allows maximum flexibility and convenience, but it does modify the educational experience. Students must login often (several times a week), and perform readings, assignments, and exercises. Students are also required to participate in online discussions with other students in the class and the instructor. Depending on the course, students may be required to take proctored or non-proctored examinations.

For a list of online course and for more information contact the Dean of Distance Learning (room 400).

Note: TCI does **not** currently offer full online programs. This means students cannot get a degree at TCI by only attending online courses.

**Hybrid Courses**

Hybrid courses use the same technology as online courses, but students in hybrid courses meet on campus during predetermined weeks and online on other weeks. These courses have the advantage of adding flexibility and convenience to participant schedules without giving up all in-person face-to-face contact. Courses delivered in a hybrid format also allow for theory to be taught by distance learning while preserving the important hands-on experience offered at TCI labs.

As in the case of online courses, hybrid courses have the same objective and outcomes as on-campus courses.

For a list of hybrid course and for more information contact the Dean of Distance Learning (room 400).
<table>
<thead>
<tr>
<th>Program</th>
<th>Core Courses:</th>
<th>Additional English Course</th>
<th>Humanities Electives: HUM-XXX</th>
<th>Arts and Sciences Electives: Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY &amp; SOC</th>
<th>Literature Electives: LIT-XXX</th>
<th>Natural or Physical Science Elective or Requirement or Additional Math Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACADEMIC PROGRAMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Core Courses and General Coursework Requirements For Degree Programs</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Division of Arts and Sciences</strong></td>
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<td></td>
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<tr>
<td>Digital Media Arts (DMA)</td>
<td>Core</td>
<td>ENG-102</td>
<td>3 credits</td>
<td>3-4 credits</td>
<td>3 credits</td>
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<tr>
<td><strong>Division of Business and Legal Studies</strong></td>
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<td></td>
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</tr>
<tr>
<td>Accounting Systems Technology (AT)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No</td>
<td>3-4 credits</td>
<td>3 credits</td>
<td>No1</td>
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<tr>
<td>Business Administration (BUS)</td>
<td>Core</td>
<td>ENG-102</td>
<td>3 credits</td>
<td>3-4 credits</td>
<td>3 credits</td>
<td>No1</td>
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<tr>
<td>Paralegal Studies (PLS)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No2</td>
<td>3-4 credits</td>
<td>3 credits</td>
<td>No1</td>
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<tr>
<td>Security Services and Management (SMT)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No2</td>
<td>6-8 credits</td>
<td>No3</td>
<td>No1</td>
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<tr>
<td><strong>Division of Engineering and Facilities Technologies</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Automotive Technology (AUTO)</td>
<td>Core</td>
<td>ENG-202</td>
<td>No2</td>
<td>3-4 credits</td>
<td>No3</td>
<td>8 credits</td>
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<tr>
<td>Electronics Engineering Technology (EET)</td>
<td>Core4</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Facilities Management Technology (FMT)</td>
<td>Core</td>
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<td>No2</td>
<td>3-4 credits</td>
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<tr>
<td>Heating, Ventilation, Air Conditioning &amp; Refrigeration Technology (HVAC)</td>
<td>Core4</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Industrial Electronics Technology – Computer Technology Track (IETC)</td>
<td>Core</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Networking Technology (NET)</td>
<td>Core</td>
<td>ENG-202</td>
<td>No2</td>
<td>3-4 credits</td>
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<td>No1</td>
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<tr>
<td><strong>Division of Health Sciences and Technologies</strong></td>
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<td>Health Information Technology (HIT)</td>
<td>Core</td>
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<td>3 credits</td>
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<td>Human Services (HSE)</td>
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<td>No</td>
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<tr>
<td>Ophthalmic Dispensing (OPT)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No2</td>
<td>3-4 credits</td>
<td>No3</td>
<td>No1</td>
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<tr>
<td>Business Administration (BAF/BAK/BAM)</td>
<td>Core (BAF/BAK/BAM)</td>
<td>ENG-102</td>
<td>3 credits</td>
<td>3-4 credits</td>
<td>3 credits</td>
<td>No1</td>
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<tr>
<td>Industrial Electronics Technology – Networking Technology Double Major (IENET)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No2</td>
<td>3-4 credits</td>
<td>No3</td>
<td>No1</td>
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<tr>
<td>Industrial Electronics Technology – Railway Electronic Systems (IETR)</td>
<td>Core</td>
<td>ENG-202</td>
<td>No2</td>
<td>6-8 credits</td>
<td>No3</td>
<td>No1</td>
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<tr>
<td>Industrial Electronics Technology – Electronic Security Systems (ESS)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No2</td>
<td>3-4 credits</td>
<td>No3</td>
<td>No1</td>
</tr>
<tr>
<td>Office Administration and Support Services (OAS)</td>
<td>Core</td>
<td>ENG-102</td>
<td>No2</td>
<td>3-4 credits</td>
<td>No3</td>
<td>No1</td>
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<tr>
<td>Robotics and Automation Technology (RNA)</td>
<td>Core</td>
<td>ENG-202</td>
<td>No2</td>
<td>6-7 credits</td>
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<td><strong>As of the Spring 2013 Term, the following programs are not accepting new students</strong></td>
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<tr>
<td>Civil and Environmental Technology (CET)</td>
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<td>ENG-202</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>10 credits</td>
</tr>
<tr>
<td>Computer Software Technology (CST)</td>
<td>Core4</td>
<td>ENG-202</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>4 credits</td>
</tr>
</tbody>
</table>

1 Although a natural science course is not required in this degree program, students may take a natural science course as an Arts and Sciences Elective.
2 Although a humanities course is not required in this degree program, students may take a humanities course as an Arts and Sciences Elective.
3 Although a literature course is not required in this degree program, students may take a literature course as an Arts and Sciences Elective.
4 ESL students in this major are exempted from the HUM-199 requirement.
DIVISION OF BUSINESS AND LEGAL STUDIES

Dean – Dr. John Luukkonen  
Ph.D., Capella University  
M.Ed., University of Houston  
B.A., University of Kentucky  
Room 400, Extension 5762, E-mail: jluukkonen@tcicollege.edu

ACCOUNTING SYSTEMS TECHNOLOGY (AT) – A.A.S. DEGREE

Chairperson – Dr. Judith Gaffney  
Ph.D., Tabernacle Bible College and Seminary  
B.S., Oral Roberts University: Business Administration  
Certification: Billing and Coding Specialist  
Room 418, Extension 5740

The Accounting Systems Technology (AT) program prepares students for employment in the accounting field. The curriculum is designed to foster technical knowledge and skills at the introductory and intermediate levels of accounting. Students are expected to become proficient in using industry standard software to perform accounting functions.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:
- To provide the verbal, written, analytical and technical skills necessary for entry-level and intermediate-level accounting positions and/or for the pursuit of a Bachelor’s degree in Accounting.
- To familiarize students with industry standard accounting principles and practices.
- To provide students with hands-on training using accounting technology/software.

Objectives of the Program:
Our graduates will be able to:
- Define ethics and apply it to business and accounting scenarios.
- Apply critical thinking, analytical, and problem solving skills to financial transactions.
- Use industry standard technology/software to accomplish accounting goals and objectives.
- Define and explain industry standard accounting terms and principles.
- Understand and perform the complete accounting cycle.
- Prepare, analyze and interpret financial statements/reports used in various business settings, such as merchandising and manufacturing.
- Prepare federal income tax returns for various income tax situations.
- Score at, or above, proficiency level on exams in basic accounting, intermediate accounting, computerized accounting, federal income tax accounting, and cost accounting.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Accounting Systems Technology (HEGIS #5002). The program length is two years.

*Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
## ACCOUNTING SYSTEMS TECHNOLOGY (AT)

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-101</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-135</td>
<td>Introduction to the Major: Accounting Systems</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Technology and Business Administration</td>
<td></td>
</tr>
<tr>
<td>MAT-112</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
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<td><strong>Total Credits</strong></td>
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**Second Semester**

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<thead>
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<th>Title</th>
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<tbody>
<tr>
<td>ACC-102</td>
<td>Principles of Accounting II</td>
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<td>Arts and Sciences Elective</td>
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<td></td>
<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
<td></td>
</tr>
<tr>
<td>ECO-111</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG-102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>OFT-105</td>
<td>Electronic Spreadsheets I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Apply for Internship</strong></td>
<td></td>
<td><strong>16-17</strong></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>16-17</strong></td>
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**Third Semester**

<table>
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<td>ACC-201</td>
<td>Intermediate Accounting I</td>
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<td>ACC-204</td>
<td>Federal Income Tax</td>
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<td>LIT-###</td>
<td>Literature Elective</td>
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<td>OFT-218</td>
<td>Desktop Presentations</td>
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**Fourth Semester**

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<td>ACC-202</td>
<td>Intermediate Accounting II</td>
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<tr>
<td>ACC-205</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC-213</td>
<td>Computerized Accounting for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS-202*</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS-203</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>15</strong></td>
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</tbody>
</table>

**Credits Required for Graduation**  64-65

*Cooperative Education students take BUS-240 instead of BUS-202.*

Students must apply for the co-op in the first few weeks of the second semester.
TCI’s Business Administration Program offers a broad array of knowledge and skills which provides graduates with a variety of career options in Business. “Business” is broadly defined, so that it includes not only commercial enterprises, large and small, but educational institutions, government offices, health-care facilities such as hospitals and clinics, museums, non-profit social service agencies, and other organizations.

PROGRAM GOALS AND OBJECTIVES

Goals of the Business Program:

- To provide the verbal, written, analytical, and technical skills necessary for entry level positions in a business setting and/or for pursuit of a Bachelor’s Degree in Business Management, Marketing or Finance.
- To introduce key principles of Management, Marketing, and Finance and their application within various types of organizations.
- To provide information about the structure and operations of modern business organizations from small businesses to international corporations.
- To familiarize students with industry standard accounting principles and practices.
- To introduce students to advertising, promoting and selling of a company’s products and services.
- To have students prepare, analyze and interpret financial statements.
- To provide hands-on experience with industry standard technology/software.

Objectives of the Business Program:

Our graduates will be able to:

- Define management, finance, accounting and marketing and will explain the basic principles of each of these functions.
- Define ethics and apply it to business scenarios.
- Apply critical thinking and problem solving skills to business, marketing and finance scenarios.
- Use verbal and written communication skills to communicate effectively in an organizational setting.
- Apply the principles of teamwork, collaboration, and leadership within a diverse work environment.
- Identify different forms of business ownership, organizational structures and management levels.
- Use different forms of technology to accomplish business, marketing and financial goals and objectives and understand management information.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Business Administration (HEGIS # 5004). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
# ACADEMIC PROGRAMS

## BUSINESS ADMINISTRATION (BUS)

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-101</td>
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<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-135</td>
<td>Introduction to the Major: Accounting Systems</td>
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<tr>
<td>MAT-112</td>
<td>College Mathematics</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC-102</td>
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<td>Arts and Sciences Elective</td>
<td>3-4</td>
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<tr>
<td>BUS-200</td>
<td>Introduction to Business Management</td>
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</tr>
<tr>
<td>ENG-102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HUM-111</td>
<td>Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Apply for Internship</strong>*</td>
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### Third Semester

<table>
<thead>
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<th>Title</th>
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<td>ACC-213</td>
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<td>BUS-206</td>
<td>Human Resource Management</td>
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<td>ECO-111</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HUM-###</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>MKT-101</td>
<td>Principles of Marketing</td>
<td>3</td>
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<td>OFT-105</td>
<td>Electronic Spreadsheets I</td>
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### Fourth Semester

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<tbody>
<tr>
<td>BUS-202*</td>
<td>Business Law</td>
<td>3</td>
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<td>BUS-203</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>BUS-204</td>
<td>Entrepreneurship Management</td>
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<td>FIN-221</td>
<td>Principles of Financial Management</td>
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<td>LIT-###</td>
<td>Literature Elective</td>
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### Credits Required for Graduation

66-67

*Cooperative Education students take BUS-240 instead of BUS-202

Students must apply for the co-op in the first few weeks of the second semester.
## BUSINESS ADMINISTRATION
### FINANCE (BAF)

As of the Fall 2012 Term, this program is not accepting new students

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC-101 Principles of Accounting I</td>
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<td>MAT-112 College Mathematics</td>
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<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110 Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-135 Introduction to the Major: Accounting Systems</td>
<td>1</td>
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<tr>
<td>Technology and Business Administration</td>
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<td>MAT-112 College Mathematics</td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC-102 Principles of Accounting II</td>
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<td>ASE-### Arts and Sciences Elective</td>
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<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
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<tr>
<td>ECO-111 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG-102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HUM-111 Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td><strong>Apply for Internship</strong>*</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16-17</strong></td>
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<tr>
<th>Third Semester</th>
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<tr>
<td>ACC-213 Computerized Accounting for Business</td>
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<td>BUS-200 Introduction to Business Management</td>
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<tr>
<td>FIN-200 Principles of Business Finance</td>
<td>3</td>
</tr>
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<td>LIT-### Literature Elective</td>
<td>3</td>
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<tr>
<td>MKT-101 Principles of Marketing</td>
<td>3</td>
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<tr>
<td>OFT-105 Electronic Spreadsheets I</td>
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<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>BUS-202* Business Law</td>
<td>3</td>
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<tr>
<td>FIN-201 Corporate Finance</td>
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<tr>
<td>FIN-202 Managerial Finance</td>
<td>3</td>
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<td>FIN-204 Financial Statement Analysis</td>
<td>3</td>
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<td>HUM-### Humanities Elective</td>
<td>3</td>
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</table>

**Credits Required for Graduation**: 66-67

* Cooperative Education students take BUS-240 instead of BUS-202

Students must apply for the co-op in the first few weeks of the second semester.
## BUSINESS ADMINISTRATION
### MARKETING TRACK (BAK)

*As of the Fall 2012 Term, this program is not accepting new students*

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC-101</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
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<tr>
<td>ENG-101</td>
<td>English Composition I</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
</tr>
<tr>
<td>MAJ-135</td>
<td>Introduction to the Major: Accounting Systems</td>
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<tr>
<td>Technology and Business Administration</td>
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<tr>
<td>MAT-112</td>
<td>College Mathematics</td>
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<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>ACC-102</td>
<td>Principles of Accounting II</td>
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<td>ASE-###</td>
<td>Arts and Sciences Elective</td>
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<tr>
<td>ECO-111</td>
<td>Principles of Macroeconomics</td>
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<tr>
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<td>English Composition II</td>
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<tbody>
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<tr>
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<td>Basic Business Statistics</td>
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<td>MKT-101</td>
<td>Principles of Marketing</td>
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<tr>
<td>OFT-105</td>
<td>Electronic Spreadsheets I</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BUS-202*</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS-204</td>
<td>Entrepreneurship Management</td>
</tr>
<tr>
<td>FIN-204</td>
<td>Financial Statement Analysis</td>
</tr>
<tr>
<td>HUM-###</td>
<td>Humanities Elective</td>
</tr>
<tr>
<td>MKT-201</td>
<td>International Marketing</td>
</tr>
<tr>
<td>MKT-202</td>
<td>Marketing and E-Commerce</td>
</tr>
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<td><strong>Total Credits</strong></td>
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**Credits Required for Graduation** 66-67

*Cooperative Education students take BUS-240 instead of BUS-202*

Students must apply for the co-op in the first few weeks of the second semester.
**BUSINESS ADMINISTRATION**  
**MANAGEMENT TRACK (BAM)**

*As of the Fall 2012 Term, this program is not accepting new students*

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>ACC-101 Principles of Accounting I</td>
<td>4</td>
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<tr>
<td>CMP-101 Introduction to Computers</td>
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<tr>
<td>HUM-110 Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-135 Introduction to the Major: Accounting Systems Technology and Business Administration</td>
<td>1</td>
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<tr>
<td>MAT-112 College Mathematics</td>
<td>3</td>
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<tr>
<td>OFT-101 Keyboarding</td>
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<tbody>
<tr>
<td>ACC-213 Computerized Accounting for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS-200 Introduction to Business Management</td>
<td>3</td>
</tr>
<tr>
<td>ECO-111 Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-### Humanities Elective</td>
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<tr>
<td><strong>Apply for Internship</strong>*</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG-102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HUM-111 Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>LIT-### Literature Elective</td>
<td>3</td>
</tr>
<tr>
<td>MGT-101 Management: Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT-101 Principles of Marketing</td>
<td>3</td>
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<tr>
<td>OFT-105 Electronic Spreadsheets I</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<thead>
<tr>
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<tbody>
<tr>
<td>ASE-### Arts and Sciences Elective (Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
<td>3-4</td>
</tr>
<tr>
<td>BUS-202* Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS-203 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS-205 Human Resource Management</td>
<td>3</td>
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<td>OFT-205 Electronic Spreadsheets II</td>
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</table>

**Credits Required for Graduation** | **65-66**

*Cooperative Education students take BUS-240 instead of BUS-202*

Students must apply for the co-op in the first few weeks of the second semester.
OFFICE ADMINISTRATION AND SUPPORT SERVICES

Chairperson – Dr. Judith Gaffney
Ph.D., Tabernacle Bible College and Seminary
B.S., Oral Roberts University: Business Administration
Certification: Billing and Coding Specialist
Room 418, Extension 5740

The Office Administration and Support Services program prepares students for careers that need administrative assistants, executive assistants, office managers, human resources assistants, virtual assistants, and support personnel who are highly trained, effective and efficient. Students learn the necessary technical skills and related verbal, written, organizational, and analytical skills to perform in many types of organizations. This program includes courses in customer service, human resources and the latest in office technology. The program uses a hands-on approach which will culminate in practical skills useful to many employers.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:
• To provide students with the verbal, organizational, written, analytical, and technical skills necessary for employment in office administration and support services.
• To prepare students for the office environment in various types of organizations.
• To provide students with hands-on practice using the latest office technology.

Objectives of the Program:
Our graduates will be able to:
• Use oral and written communication skills in an office environment.
• Understand the concept of “customer” as one which permeates every aspect of a job.
• Explain the basic human resources functions, particularly as they relate to creating an effective and efficient office environment.
• Use the latest technology to present, organize, and handle daily office activities and presentations.
• Apply critical thinking and problem solving skills to support the smooth running of a department or operation.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Office Administration and Support Services (HEGIS #5005). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
OFFICE ADMINISTRATION AND SUPPORT SERVICES (OAS)

As of the Fall 2012 Term, this program is not accepting new students

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
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<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110 Speech</td>
<td>3</td>
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<tr>
<td>MAJ-134 Introduction to the Major: Office Administration and Support Services</td>
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<tr>
<td>MAT-112 College Mathematics</td>
<td>3</td>
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<tr>
<td>OFT-101 Keyboarding I</td>
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<th>Second Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASE-### Arts and Sciences Elective</td>
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<tr>
<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
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<tr>
<td>ENG-102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HUM-111 Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>OFT-102 Keyboarding II</td>
<td>3</td>
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<tr>
<td>OFT-105 Electronic Spreadsheets I</td>
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<tr>
<td>BUS-131 Introduction to Human Resources</td>
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<td>BUS-132 Customer Service</td>
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<td>LIT-### Literature Elective</td>
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<td>OFT-203 Introduction to Word Processing</td>
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<td>OFT-205 Electronic Spreadsheets II</td>
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</thead>
<tbody>
<tr>
<td>BUS-200* Introduction to Business Management</td>
<td>3</td>
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<tr>
<td>BUS-203 Business Communication</td>
<td>3</td>
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<tr>
<td>OFT-207 Advanced Word Processing</td>
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<td>OFT-214 Electronic Databases</td>
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<tr>
<td>OFT-216 Office Administration Principles</td>
<td>3</td>
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<td>OFT-218 Desktop Presentations</td>
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</table>

**Credits Required for Graduation** 64-65

*Cooperative Education students take OT-400 instead of BUS-200.

Students must apply for the co-op in the first few weeks of the second semester.
The Paralegal Studies Program prepares students for careers in the legal profession as highly trained and efficient Paralegals who provide essential assistance to attorneys and staff. Students learn the necessary legal knowledge and related verbal, written, analytical, and technical skills to secure initial employment and to advance. They can also choose to continue their education by pursuing a baccalaureate.

TCI’s Paralegal Studies classes are taught by experienced attorneys. Among the areas covered are criminal law, family and corporate law, contracts, and real estate. Students learn how to read, analyze, and brief a court case, conduct legal research using specialized databases such as Westlaw and Lexis, write legal memoranda, understand an appellate oral argument, interview clients and analyze facts, assist in case management, and draft pleadings used in litigation. They also study the basic concepts of civil and criminal law, the operations of court systems, and the rules of practice in the State of New York. A Moot Court competition provides a simulation of real-world legal proceedings.

PARALEGAL STUDIES PROGRAM GOALS AND OBJECTIVES

Paralegals work under the supervision of a lawyer; they cannot give legal advice, represent other in court, set fees, or accept cases. Paralegals may interview clients, review documents, prepare trial evidence, maintain case files, conduct legal research, assist lawyers with estate administration, real estate transactions, and other legal matters.

The following are goals of the program:

- To provide students with the verbal, written, analytical, and technical skills necessary for employment as paralegals.
- To satisfy the current legal community’s need for skilled and efficient legal assistants.
- To satisfy society’s need for comprehensive legal services.
OBJECTIVES OF THE PARALEGAL STUDIES PROGRAM

Our graduates will be able to:

• Read, analyze, and brief a court case containing one or multiple judicial opinions;
• Conduct legal research using primary and secondary sources of law, manually or through computers (i.e., Lexis, Westlaw, and the Internet), and Shepardize the results;
• Write objective and subjective memoranda of law;
• Understand the framework of an appellate oral argument and participate in a Moot Court competition accordingly;
• Interview clients and analyze facts;
• Assist in case management;
• Draft pleadings essential to litigation;
• Understand the basic concepts of substantive and procedural law, as well as civil and criminal law;
• Understand the court system and the rules of practice in the State of New York;
• Understand the American Bar Association’s ethical code of conduct as it applies to attorneys and paralegals;
• Understand the New York State Bar Association rules and statutes regulating attorneys and paralegals;
• Use basic legal office software necessary for maintaining litigation calendars, billable hours, and other general legal office tasks;
• Type a minimum of 35 words per minute using the touch-type system, and be familiar with a word processing program and with proofreading skills;
• Understand the concept of the unauthorized practice of law;
• Identify the principles of contract information, including the agreement;
• Prepare a simple, valid, enforceable contract;
• Understand the three main concepts of tort liability: intent, negligence, and liability without fault;
• Apply knowledge related to areas such as:
  • Family law;
  • Real property;
  • Alternative Dispute Resolution;
  • Immigration Law;
  • Corporate Law;
  • Bankruptcy; and
  • Business Law

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Paralegal Studies (HEGIS #5099). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
## ACADEMIC PROGRAMS

### PARALEGAL STUDIES (PLS)

#### First Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CMP-101</td>
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<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
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<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
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<tr>
<td>MAT-112</td>
<td>College Mathematics</td>
<td>3</td>
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<td>PLS-155</td>
<td>Fundamentals of Law</td>
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#### Second Semester

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ASE-###</td>
<td>Arts and Sciences Elective (Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
<td>3-4</td>
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<tr>
<td>ENG-102</td>
<td>English Composition II</td>
<td>3</td>
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<tr>
<td>OFT-101</td>
<td>Keyboarding I</td>
<td>3</td>
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<tr>
<td>PLS-165</td>
<td>Contracts</td>
<td>3</td>
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<td>PLS-175</td>
<td>Torts</td>
<td>3</td>
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<td><strong>Apply for Internship</strong>*</td>
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#### Third Semester

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<tr>
<th>Course</th>
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<tr>
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<td>Critical Thinking</td>
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<td>PLS-###</td>
<td>Paralegal Studies Elective</td>
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<td>PLS-223</td>
<td>Legal Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>PLS-245</td>
<td>Legal Ethics</td>
<td>3</td>
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<td>PLS-255</td>
<td>Criminal Law</td>
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#### Fourth Semester

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<tr>
<td>PLS-###</td>
<td>Paralegal Studies Elective</td>
<td>3</td>
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<td>PLS-###</td>
<td>Paralegal Studies Elective</td>
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<td>PLS-265</td>
<td>Legal Research and Writing</td>
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<td>PLS-266</td>
<td>Litigation</td>
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### Credits Required for Graduation

60-61

Students must apply for the co-op in the first few weeks of the second semester.

## Approved Electives for the PLS Program

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>PLS-260</td>
<td>Domestic Affairs</td>
<td>3</td>
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<tr>
<td>PLS-261</td>
<td>Real Property</td>
<td>3</td>
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<tr>
<td>PLS-262</td>
<td>Organizational Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS-263</td>
<td>Immigration Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS-267</td>
<td>Advanced Legal Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>PLS-268</td>
<td>New York Practice for Paralegals</td>
<td>3</td>
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<tr>
<td>PLS-269</td>
<td>Introduction to Cyberlaw and Intellectual Property</td>
<td>3</td>
</tr>
<tr>
<td>PLS-270</td>
<td>Internship in Paralegal Studies</td>
<td>3</td>
</tr>
</tbody>
</table>
The Security Services and Management (SMT) program prepares students for careers in law enforcement and in public and private security. One part of its curriculum focuses on the legal concepts and practices relating to criminal law and criminal investigation. Another part covers the development and implementation of security systems for public and private areas and facilities. Students are taught by instructors who have real-world experience in law enforcement and security services.

There are career opportunities in the police and other law enforcement agencies, financial institutions, retail security, public transportation, hotels, hospitals and health care facilities, universities, museums, entertainment, communications and other industries, and government agencies. The Security Services and Management program includes the opportunity for students to prepare for and earn the New York State-mandated certificate that qualifies them to be licensed as a security guard. The completion of 60 college credits can serve as one of the qualifications for employment with the New York Police Department.

**PROGRAM GOALS AND OBJECTIVES**

**Goals of the Program:**

- To provide the skills and knowledge required to fill middle management positions in the security industry.
- To provide the skills and knowledge required to perform entry level positions in law enforcement.
- To prepare students for administrative and management functions of the security industry.
- To prepare students for completion of the New York State 8-hour security guard training course.

**Our graduates will be able to:**

- Define and apply the legal concepts and practices related to criminal law and criminal investigation.
- Use verbal and written communication skills to communicate effectively within the security industry.
- Define ethics and apply it to industry scenarios.
- Identify detailed operations of security administration and operational duties/limitations.
- Explain the management theories that relate to the security industry.
- Identify the elements of professional and amateur property crimes.
- Apply the prevention methods used to detect and deter crimes against people and property.
- Apply criminal investigation procedures and techniques.
• Apply the techniques used to interview witnesses and interrogate suspects.
• Apply the theories of Risk Management used to prevent accidents and safety violations.
• Prepare security reports.
• Describe the criminal justice system including the police, the courts and corrections.
• Identify the elements of crimes against property and crimes against people.
• Identify the differences between criminal law and civil law and the application of each to the security industry.
• Apply the different theories of conflict resolution.
• Describe CCTV, security alarm, fire alarm and security access systems.
• Successfully complete the New York 8-hour security guard training course.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Security Services and Management (HEGIS #5505). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
### ACADEMIC PROGRAMS

#### SECURITY SERVICES AND MANAGEMENT (SMT)

**First Semester**

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<tbody>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
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<td>English Composition I</td>
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<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
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<tr>
<td>MAT-112</td>
<td>College Mathematics</td>
<td>3</td>
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<td>SMT-101</td>
<td>Fundamentals of Security Management</td>
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<td>ENG-102</td>
<td>English Composition II</td>
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<td>PSY-101</td>
<td>Introduction to Psychology</td>
<td>3</td>
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<td>SMT-116</td>
<td>Introduction to Criminal Justice</td>
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<td>SMT-121</td>
<td>Essentials of Cybercrime Security</td>
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<td>BUS-200</td>
<td>Introduction to Business Management</td>
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<td>SMT-215</td>
<td>Security Law</td>
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<tr>
<td>SMT-230</td>
<td>Physical Security and Safety</td>
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<td>SMT-232</td>
<td>Retail Security Systems</td>
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<tr>
<td>SMT-###</td>
<td>Security Services and Management Elective</td>
<td>3</td>
</tr>
<tr>
<td>SMT-###</td>
<td>Security Services and Management Elective</td>
<td>3</td>
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<tr>
<td>SMT-220</td>
<td>Fundamentals of Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>SMT-236</td>
<td>Security Equipment and Operations Overview</td>
<td></td>
</tr>
<tr>
<td>SMT-237</td>
<td>Dispute Resolution</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
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</tr>
</tbody>
</table>

**Credits Required for Graduation**

| Credits | 60-62 |

**Approved Electives for the SMT Program**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT-136</td>
<td>Principles of Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>SMT-141</td>
<td>Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>SMT-231</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>SMT-270</td>
<td>Internship in Security Services and Management</td>
<td></td>
</tr>
</tbody>
</table>

Students must apply for the co-op in the first few weeks of the second semester.
ACC-101 Principles of Accounting I 4-0-4
An introduction to basic accounting concepts including accounting as an information system, financial reporting and analysis, measuring business transactions, completing the accounting cycle, accounting for merchandise operations, accounting information systems – computer and manual data processing and internal control.

ACC-102 Principles of Accounting II 4-0-4
A continuation of ACC-101 including short-term liquid assets, inventories, long-term assets, current liabilities, partnerships, capital, retained earnings and long-term liabilities.
Prerequisite: ACC-101

ACC-113 Computerized Accounting 3-0-3
An introduction to computerized accounting software applications including general journal transactions, accounts payable, accounts receivable, inventory, payroll and account reconciliation.
Prerequisites: ACC-101 and ACC-102

ACC-201 Intermediate Accounting I 4-0-4
A study of financial accounting and reporting, the accounting process, income statement and statement of retained earnings, the balance sheet, statement of cash flows and revenue recognition.
Prerequisite: ACC-102

ACC-202 Intermediate Accounting II 3-0-3
A continuation of ACC-201 including cash, current receivables, liabilities, contingencies, inventory valuation, plant assets, intangibles, investments, debt securities, leases and pensions.
Prerequisite: ACC-201

ACC-204 Federal Income Tax 3-0-3
A focus on the preparation of federal income tax returns involving common items of personal income and expenses. Concepts of includability, deductibility, adjusted gross income, and taxable income are covered. Standard tax preparation software will be used.
Prerequisite: ACC-102

ACC-205 Cost Accounting 3-0-3
An emphasis on how to journalize typical cost accounting transactions, prepare financial statements and statements about results of operations, calculate manufacturing costs, break-even point, and job costing for both service and manufacturing organizations. Studies are computer-based.
Prerequisite: ACC-102

ACC-213 Computerized Accounting for Business 3-0-3
This course is designed to provide additional hands-on practice in computerized accounting with software used in small to mid-size businesses.
Prerequisites: ACC-101 and ACC-102

BUS-100 Business Mathematics 5-0-3
This course is the same as BUS-101 but offers additional contact hours.

BUS-101 Business Mathematics 3-0-3
A study of mathematical fundamentals as applied to business and office procedures. Special attention is devoted to the principles and applications of financial interest, bank discounts and purchase discounts. Students learn mathematical concepts used in receipts, disbursements and payroll calculations.
BUS-131 Introduction to Human Resources 3-0-3
This course introduces students to the various functions within Human Resources, with an emphasis on the administrative and technological aspects of Human Resources. It will include Human Resource Information Systems (HRIS), fundamental concepts in employment law, hiring processes and systems, benefits administration, and payroll administration.

BUS-132 Customer Service 3-0-3
This course introduces students to the basics of good customer service, for telephone and face-to-face interactions. The topics of the course include telephone etiquette, problem solving, defusing anger, and building rapport.

BUS-200 Introduction to Business Management 3-0-3
An introduction to the structure and operation of the modern business organization from small businesses to international corporations. Emphasis is on the various types of management systems and strategies and the relationships among functional departments.

BUS-201 Basic Business Statistics 2-2-3
This course covers basic concepts of statistics, data collection and presentation, descriptive numerical measures, and drawing conclusions. Topics include data in tables and charts, measures of central tendency and variations, basic probability, normal and binomial distribution, hypothesis testing, Chebychev’s theorem and Chi-square tests. 
Prerequisite: MAT-112 or MAT-111

BUS-202 Business Law 3-0-3
A focus on the nature of torts and contracts, as well as on the remedies for torts and breaches of contract. Case studies will be used to illustrate the principles discussed, especially as they apply to the business environment. 
Prerequisite: ENG-101

BUS-203 Business Communications 3-0-3
This course provides for a thorough understanding of the principles used in composing business letters, memos, technical reports, and oral presentations. Students learn and apply the techniques of effective written and oral communications through analysis of actual, effective correspondence and business presentations. Topics include writing business letters, memos, e-mails, and reports; achieving active listening skills; and preparing and giving oral business presentations. 
Prerequisites: ENG-102 and HUM-110

BUS-204 Entrepreneurship Management 3-0-3
An overview of required resources and skills that transform ideas into a viable business. Emphasis is on startups, buyouts, franchising opportunities and the family business. Business plans, resource management, consumer behavior and quality management are also discussed.

BUS-206 Human Resource Management 3-0-3
An introduction to human resource management for the effective support and achievement of an organization’s strategies and goals. Emphasis is on the major functions of planning, staffing, performance evaluations, compensation, labor relations and employee development. 
Prerequisite: ENG-100, EN-101S, or ENG-101

BUS-240 Cooperative Education Internship 0-0-3
The Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Department of Career Services in the semester prior to and during internship. See the section of the catalog “Cooperative Education/Internship Program” for more details. 
(This class is open to students in the following majors only: AT, BAF, BAK, BAM & BUS)

CMP-101 Introduction to Computers 3-0-3
A broad survey intended to provide students with an introduction to computer concepts, uses and problem-solving techniques. The topics covered in this course include an introduction to operating systems, word processing, spreadsheets, the Internet and electronic mail. This course is hands-on and students work on projects approved by the instructor. No previous knowledge of computers is required.
FIN-200  Principles of Business Finance  3-0-3
This course surveys investing and making financial decisions with the goal of maximizing shareholder wealth. Students learn four important tools: time value of money, risk and valuation of financial assets, capital budgeting, and capital structure and dividend policies.  
**Prerequisite:** ACC-102

FIN-201  Corporate Finance  3-0-3
A survey of the role and function of business firms in the economy and the application of economic theory in managerial decision-making. Topics include managing cash, inventory and receivables; selecting alternative investments; and reviewing the cost of capital and optimum capital structures.  
**Prerequisite:** ACC-102

FIN-202  Managerial Finance  3-0-3
An introduction to managerial finance and the environment in which it operates. Students learn the significance of financial tools, such as valuation, portfolio theory, and capital structure.  
**Prerequisite:** ACC-102

FIN-204  Financial Statement Analysis  3-0-3
A survey of tools required to understand the four basic financial statements. The course provides an understanding of quantitative analysis, as well as the use of accounting ratios and measurement of cash flows.  
**Prerequisite:** ACC-102

FIN-221  Principles of Financial Management  3-0-3
This course is designed to help students understand how businesses meet their financial goals and objectives. This will also cover the financial tools that help managers make financial decisions to maximize the firm’s values. These financial decisions include methods to estimate cash flows, risks analysis, capital budgeting, capital structure, and cost of capital, financial forecasting, time value of money, bond and stock valuation, and other related topics.  
**Prerequisites:** ACC-102 and OFT-105

HUM-111  Critical Thinking  3-0-3
A course designed to improve problem-solving and decision-making skills. Through the study of fallacies, simple syllogisms, and evaluative methods (especially those used in scientific experimentation), students increase their reasoning powers and strengthen their overall concept of the scientific method and its application to general and technical problems.  
**Prerequisite:** ENG-100, EN-101S, or ENG-101

MAJ-134  Introduction to the Major: Office Administration and Support Services  1-0-1
The overview of Office Administration and Support Services will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-135  Introduction to the Major: Accounting Systems Technology and Business Administration  1-0-1
The overview of Accounting Systems Technology and Business Administration will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MGT-101  Management: Organizational Behavior  3-0-3
An introduction to the fundamental concepts of human behavior within organizations. Emphasis is on motivation, group dynamics, organizational structure, leadership, conflict management and organizational culture.
MKT-101 Principles of Marketing 3-0-3
This course covers the principles and methods employed in all phases of the distribution of goods and services from the producer to consumer. An emphasis on marketing activities includes product planning, consumer behavior, advertising and marketing research. An overview of the dynamics of marketing acquaints students with the general philosophies of the business world.

MKT-201 International Marketing 3-0-3
A blueprint for small and medium sized enterprises operating in a global environment with evolving technologies. Students learn marketing planning and strategy, the network perspective to international marketing, and the importance of environmentalism, ethics, electronic commerce, and multilateral trade relations.
Prerequisite: MKT-101

MKT-202 Marketing and E-Commerce 3-0-3
A survey of conceptual frameworks for e-business marketing. Students receive an overview of e-business, learn how the marketing mix is used as leverage in the internet environment, and study the value bubble Internet marketing process. Finally, the course looks at the future of e-business marketing and proposes extensions for the existing value bubble analytical tool.
Prerequisite: MKT-101

OFT-101 Keyboarding I 3-0-3
A course designed to develop keyboarding skills in a standard windows operating system, with leading-edge technology and application software. The instructional program is focused on alphabetic, numeric, and symbolic keys while building location security and basic formatting principles.

OFT-102 Keyboarding II 3-0-3
An intermediate-level keyboarding course building on OFT-101 skills emphasizing formatting industry-style documents while increasing speed and accuracy.
Prerequisite: OFT-101

OFT-105 Electronic Spreadsheets I 3-0-3
An introduction to the fundamental operations and business applications of electronic spreadsheets, including worksheet design. Students learn to manipulate, display, and output data in a worksheet file.
Prerequisite: CMP-101

OFT-203 Introduction to Word Processing 3-0-3
An introductory hands-on application software course utilizing techniques and procedures necessary for document production. Students will learn the fundamentals of creating and designing business correspondence.
Prerequisite: OFT-102

OFT-205 Electronic Spreadsheets II 3-0-3
An advanced hands-on spreadsheet course. Applications include macros, lists, graphics, and charts.
Prerequisite: OFT-105

OFT-207 Advanced Word Processing 3-0-3
An advanced hands-on application software course building on OFT-203 skills. The student will gain proficiency in document design, production and multitasking.
Prerequisite: OFT-203

OFT-214 Electronic Databases 3-0-3
An introduction to database management concepts through a hands-on approach utilizing industry application software. Organizing and manipulating data lists are covered extensively.
Prerequisite: CMP-101 and OFT-102

OFT-216 Office Administration Principles 3-0-3
An integration of office, language, and organizational skills required for careers in industry today. The focus is on preparation for realistic problems and situations encountered in the workplace.
Prerequisites: OFT-105 and OFT-203

OFT-218 Desktop Presentations 3-0-3
Students learn how to use computer software programs to create slides, audience handouts, and on-screen presentations.
Prerequisites: CMP-101 or OFT-102
OT-400 Cooperative Education Internship 0-0-3
The Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Department of Career Services in the semester prior to and during internship. See the section of the catalog “Cooperative Education/Internship Program” for more details.
(This class is open to students in the major OAS, only)

PLS-155 Fundamentals of Law 3-0-3
This course provides the student with a basic overview of law and an introduction to the legal profession. The student learns how to compose various legal documents, to analyze court cases and to distinguish between civil and criminal law and substantive and procedural law. Other topics include paralegal employment and an introduction to various types of law.

PLS-165 Contracts 3-0-3
This course teaches students the basic elements involved in contracts. Topics include verbal and written contracts, defenses, and other exceptions and remedies.
Co-requisite: PLS-155

PLS-175 Torts 3-0-3
This course familiarizes students with intentional, negligent and strict liability torts. The course includes the torts comprising personal injury and defamation emphasizing the paralegal’s role in these areas.
Co-requisite: PLS-155

PLS-223 Legal Office Procedures 3-0-3
This course surveys the specific problems and situations that occur in the day-to-day operation of the typical legal office. The course includes the following topics: legal billing, maintaining the legal office calendar, creating specific legal forms, document coding and searching a variety of legal databases. Heavy emphasis is placed on specialized computer programs used in the typical legal office.
Prerequisite: CMP-101

PLS-245 Legal Ethics 3-0-3
This course is designed to make students aware of the professional code of conduct required of lawyers and paralegals. Special attention is given to the American Bar Association’s Model Code of Professional Conduct and to the applicable disciplinary rules and ethical considerations.
Prerequisite: PLS-155

PLS-255 Criminal Law 3-0-3
This course teaches students the basic concepts of criminal law. Topics include homicide, other violent crimes, property crimes, criminal mental states, defenses and standards of proof. Students enhance their advocacy and analytical skills by engaging in lengthy discussions regarding contemporary legal criminal issues.
Prerequisite: PLS-155

PLS-260 Domestic Affairs 3-0-3
This course introduces students to the laws relating to various family issues. Topics include divorce, annulment, separation, child custody and support and wills. Students learn how to prepare the documents relevant to these matters.
Prerequisites: PLS-165 and PLS-175

PLS-261 Real Property 3-0-3
This course teaches students the law involved in various real estate matters. Topics include absolute and conditional ownership, easements and conveyances and landlord/tenant law. Students learn how to prepare the documents necessary for various types of real estate closings.
Prerequisites: PLS-165 and PLS-175

PLS-262 Organizational Law 3-0-3
This course familiarizes students with the essential elements of business law, particularly corporations, partnerships and individual business ownership. Topics include formation, dissolution, liability, and capital stock. Special attention is paid to bankruptcy as the students are familiarized with its various forms and relevant document preparation.
Prerequisites: PLS-165 and PLS-175
PLS-263  Immigration Law  3-0-3
This course teaches students the basic principles of immigration law. Topics include immigrant and non-immigrant status, adjustment of status, illegal aliens and U.S. citizenship. Students become familiar with various aspects of the immigration process.
Prerequisites: PLS-165 and PLS-175

PLS-265  Legal Research and Writing  3-0-3
This course offers students hands-on education in manual and computerized legal research. The students draft memoranda of law utilizing their research results. The course culminates with a Moot Court competition incorporating the students’ research, writing and advocacy skills. Students are encouraged to join the Moot Court Association.
Prerequisites: ENG-101, PLS-165 and PLS-175

PLS-266  Litigation  3-0-3
This course advances students’ knowledge of procedural law. Students draft various documents involved in a lawsuit and learn many other tasks essential in trial preparation. Topics include: learning the rules of evidence, enhancing interviewing techniques, and other skills related to interaction with clients, opposing counsel and court personnel.
Prerequisites: ENG-101, PLS-165 and PLS-175

PLS-267  Advanced Legal Research and Writing  3-0-3
This course enhances students’ legal writing and citation skills. In a workshop atmosphere, students write numerous documents emphasizing objective and subjective legal writing. Documents include various types of legal letters and memoranda of law. The course culminates with an appellate brief. Students enrolled in this course are encouraged to serve as senior student advisors to the Moot Court Association.
Prerequisite: PLS-265

PLS-268  New York Practice for Paralegals  3-0-3
This course enhances a student’s understanding of the day-to-day work performed by paralegals as well as a student’s understanding of the tasks necessary to file cases, interview clients and prepare forms required by the various New York State courts and agencies.
Prerequisites: PLS-165, PLS-175 and PLS-255

PLS-269  Introduction to Cyberlaw and Intellectual Property  3-0-3
This course analyzes the history of the Internet and the competing policies underlying the intellectual property laws. Students will gain an understanding of cyberlaw jurisdiction, how a Web merchant has potential global liability exposure, and runs the risk of being sued in any state or country where a plaintiff can prove a legal action based on contract or tort, and various civil litigation issues specific to the Internet. This course is designed to provide fundamental skills needed to understand related cyberlaw concepts such as trademark, copyright, patents, digital rights, computer crimes, privacy issues, hacking and prosecution. No technical background is required.
Prerequisites: PLS-165, PLS-175 and PLS-255

PLS-270  Internship in Paralegal Studies  0-0-3
The Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Career Services Department in the semester prior to and during internship. See the section of the catalog “Cooperative Education/Internship Program” for more details.
SMT-101  Fundamentals of Security Management  3-0-3

This course offers students an overview of major issues in the security industry today. Students gain an understanding of security-related terminology and their studies concentrate on such topics as the privatization of public safety, contract security services, special event security and access control. Students also become familiar with the concerns of modern security managers operating in both corporate and institutional environments. Coursework includes independent projects as well as classroom assignments. SMT-101 provides the fundamentals for advanced security coursework and is directly applicable to work within the security field.

Prerequisite:  SMT-101

SMT-116  Introduction to Criminal Justice  3-0-3

This course is a survey of the historical and philosophical development of law enforcement, an analysis of the court system, the criminal justice process and constitutional limitations on the criminal justice system. Emphasis is given to the interrelationship between and among administrative agencies and to future trends in law enforcement.

Prerequisite:  SMT-101

SMT-121  Essentials of Cybercrime Security  3-0-3

The course will examine cybercrime and the flaws in complex information systems and information infrastructures, such as the Internet. Students will analyze methods criminals use on the Internet.

Prerequisite:  SMT-101

SMT-136  Principles of Criminal Investigation  3-0-3

This course includes an analysis of the nature and purpose of criminal investigation. Discussion includes various methods of investigation, the interview and interrogation of witnesses and suspects, collection and preservation of evidence, use of informants, and techniques of surveillance and special investigation. The course covers procedures used in the police science laboratory such as ballistics, documents, serology, photography, and related forensic services.

Prerequisite:  SMT-101

SMT-141  Emergency Management  3-0-3

This course will examine security management issues posed by emergencies of all kinds, such as bomb threats, earthquakes, explosions, labor disputes, and oil spills. Issues, such as risk analysis, standards, counter-measures, and emergency public relations will be covered along with case studies, such as Hurricane Katrina in New Orleans, LA, and the Japanese nuclear disaster in Fukushima.

Prerequisite:  SMT-101

SMT-215  Security Law  3-0-3

The course acquaints the student with basic legal issues facing the private police officer. Students examine the general sources of legal powers and limitations concerning private police including an overview of substantive criminal law. Major topics include: the relative legal powers of private citizens, private and public police, investigatory function of private police, law of arrest, search and seizure, use of force, and the legal relationship between users and providers of private security services.

Prerequisite:  SMT-101

SMT-220  Fundamentals of Homeland Security  3-0-3

This course will examine the domestic and international aspects of homeland security. The course will address the fundamental principles of preparing for, mitigation, and recovering from a disaster.

Prerequisites:  SMT-101 and SMT-116
Corequisites:  ENG-100, EN-101S, or ENG-101
SMT-230  Physical Security and Safety 3-0-3
In this course, concepts of physical security integrated with management systems are studied. Coursework includes an examination of physical security requirements and standards, alarms and surveillance devices, and cost planning. Principles of safety practices and regulations, fire prevention, property conservation, occupational hazards, and personal safeguards are also covered.
Prerequisite: SMT-101

SMT-231  Criminology 3-0-3
This course is a survey of the nature and scope of criminality and prevalent forms of deviance and considers the major theories of criminal and deviant conduct drawn from psychological, social and cultural theories. A discussion of various classifications and typologies and the role of crime statistics is included, as well as the relevance of these factors for describing, preventing, controlling and predicting criminal behavior.
Prerequisite: SMT-101

SMT-232  Retail Security Systems 3-0-3
This course is a survey of various methods used in the protection of business premises including techniques for the control of shoplifting and employee theft and the prevention of robbery, burglary, and fraud. Consideration is also given to the utilization of surveillance systems, alarm devices and protective services.
Prerequisite: SMT-101

SMT-236  Security Equipment and Operations Overview 3-0-3
This course provides students with an overview of security alarm systems, surveillance systems including CCTV systems, fire alarm systems and security access systems.
Prerequisite: SMT-230

SMT-237  Dispute Resolution 3-0-3
This course examines definitions of conflict and diverse views of its resolution; introduces theories that attempt to explain the causes of conflict; and focuses on intervention models such as negotiation, mediation, arbitration as well as numerous problem solving techniques.
Prerequisite: SMT-101

SMT-270  Internship in Security Services and Management 0-0-3
The Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Career Services Department in the semester prior to and during internship. See the section of the catalog “Cooperative Education/Internship Program” for more details.
ACADEMIC PROGRAMS

DIVISION OF ENGINEERING AND FACILITIES TECHNOLOGIES

Dean – Dr. Victor Brown
M.B.A., Emory University: Business Administration
Ph.D., University of the West Indies: Biochemistry
B.Sc., University of the West Indies: Chemistry & Biochemistry
Room 400, Extension 5793, E-mail: vbrown@tcicollege.edu

Coordinator for the CMP-101, the Introduction to Computers – Bissoondial Jaipersaud
B.S., New York Institute of Technology  A.A.S., Technical Career Institutes
A.O.S., Technical Career Institutes
Certifications: N+
Room 306A; Extension 5712

AUTOMOTIVE TECHNOLOGY (AUTO) - A.A.S. DEGREE

Chairperson – Safet Kolenovic
B.A., Montenegro College (Montenegro)  A.A.S., Rockland Community College
Room 200; Extension 5750

The Automotive Technology (AUTO) program prepares students to become automotive service technicians with the skills to repair, maintain, overhaul and modify motor vehicles. Courses in the major are taught at the prestigious, state-of-the-art Potamkin Dealership, at 2495 Second Avenue, New York, NY 10035. The curriculum in AUTO combines theory with hands-on training.

As part of an automotive technician’s educational program, students learn to understand work orders, technical bulletins, and cost estimates and relate such information to the job at hand. Students also learn to interpret warranty policies in terms of service reports, component failures and analysis records.

Job titles for graduates of this program include: Automotive Line Technician; Automotive Specialty Technician; Service Manager; Parts Manager; Automotive Equipment and Parts Salesperson; and Diagnostic Technician with Specialties in Electronic Engine Controls, Computerized Fuel Systems, Engine Performance Testing, Computerized Electrical Diagnostics, and Emission Control Service and Certification.
AUTOMOTIVE TECHNOLOGY

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:

• The Automotive Technology Program prepares graduates with technical and managerial skills necessary to enter careers in design, manufacturing, marketing, operation, and maintenance in the field of automotive technology.

• Graduates are expected to have strengths in their knowledge of operations, maintenance, and manufacturing.

Objectives of the Program:

Our Graduates will:

• Understand the automotive industry, various job classifications and career opportunities. Our graduates will have acquired knowledge of the historical background and design evolution of vehicles, body shapes, construction and operation of various systems and technologies used in current vehicles.

• Know safety procedures, safety equipment and proper handling of hazardous materials used in the automotive industry.

• Be able to operate various hand/diagnostic tools, understand the use of service manuals and pc-based diagnostic programs, and follow diagnostic Troubleshooting procedures.

• Understand the construction and operation of an internal combustion engine; knowledge of fuels and other energy sources used in current vehicles, various fuel delivery systems, emission control systems. Our graduates will have the ability to diagnose and service faults within these systems.

• Know the basic principles of electricity, the various electrical / electronic systems used in vehicles, component operation, circuit design and testing procedures, ability to read electrical wiring diagrams and operate various electrical / electronic equipment.

• Know the construction and operation of various manual and automatic transmissions/transaxles. Our graduates will have the ability to diagnose and service faults within these systems.

• Have acquired a knowledge of the construction and operation of various suspension and brake systems. Our graduates will have the ability to diagnose and service faults within these systems.

• Be able to diagnose and service faults within the heating and conditioning systems.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Automotive Technology (HEGIS #5306). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
# ACADEMIC PROGRAMS

## AUTOMOTIVE TECHNOLOGY (AUTO)

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<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AUT-101 Integrated Automotive Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT-104 Fundamentals of Automotive Electricity</td>
<td>3</td>
</tr>
<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110 Speech</td>
<td>3</td>
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<tr>
<td>MAT-120 Algebra and Trigonometry I</td>
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<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>AUT-102 Engine Performance</td>
<td>5</td>
</tr>
<tr>
<td>AUT-103 Automotive Brake Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUT-118 Automotive Electrical/Electronic Systems</td>
<td>4</td>
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<tr>
<td>ENG-101 English Composition I</td>
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<th>Third Semester</th>
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<tbody>
<tr>
<td>AUT-105 Engine Repair</td>
<td>5</td>
</tr>
<tr>
<td>AUT-107 Manual Drive Trains and Axles</td>
<td>5</td>
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<tr>
<td>ENG-202 Technical Writing and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>PHY-101 Introductory Physics</td>
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<tr>
<td>ASE-### Arts and Sciences Elective</td>
<td>3-4</td>
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<tr>
<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
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<tr>
<td>AUT-109 Suspension and Steering</td>
<td>5</td>
</tr>
<tr>
<td>AUT-110 Automotive Heating and Air Conditioning</td>
<td>5</td>
</tr>
<tr>
<td>AUT-111 Automotive Transmissions and Transaxles</td>
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</table>

**Credits Required for Graduation**                    | **66-67** |
Civil and Environmental Technology relates to the construction and retrofitting of buildings, bridges, dams, tunnels, and roads. It combines together the traditional field of Civil Engineering with the newer field of Environmental Engineering. To ensure an inhabitable planet, the managing of the physical world, whether man-made or naturemade, must take into account environmental concerns at every step. New construction has to meet strict environmental codes while the retrofitting of existing structures to make them more environmentally efficient is increasingly common.

Civil and Environmental Technology will prepare graduates who will be able to work closely with engineering teams in such areas as:

- Assisting in the oversight of environmental remediation activities, including air and water quality.
- Documenting field operations, writing reports, collecting and reviewing data.
- Developing plans using AutoCAD drafting, conducting topographic surveying and providing assistance with construction stakeout and construction review.
- Performing site surveys and inspections to ensure that required work is accomplished satisfactorily and conforms to the contract specifications.
- Inspecting or installing of concrete, masonry, reinforcing steel, and structural steel.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:

- The program will prepare graduates with the technical and managerial skills necessary to enter careers in the planning, design, construction, operation or maintenance of the built environment and global infrastructure.
- Graduates typically have strengths in their knowledge of the building, testing, operation, and maintenance of infrastructure with the ability to produce and utilize basic construction documents and perform basic analysis and design of system components.

Objectives of the Program:

Graduates will be capable of:

- Utilizing graphic techniques to produce engineering documents.
- Conducting standardized field and laboratory testing on civil engineering materials.
- Utilizing modern surveying methods for land measurement and/or construction layout.
- Determining forces and stresses in elementary structural systems.
- Estimating material quantities for technical project.
- Employing productivity software to solve technical problems.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Civil and Environmental Technology (HEGIS #5301). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
CIVIL AND ENVIRONMENTAL TECHNOLOGY (CET)

As of the Spring 2013 Term, this program is not accepting new students.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Semester</td>
<td>CET-110</td>
<td>Materials Science</td>
<td>3</td>
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<td></td>
<td>CET-111</td>
<td>Fundamentals of Civil and Environmental Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CMP-101</td>
<td>Introduction to Computers</td>
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<tr>
<td></td>
<td>HUM-199</td>
<td>Speech</td>
<td>3</td>
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<td></td>
<td>MAJ-143</td>
<td>Introduction to the Major: Civil and Environmental Technology</td>
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<td>MAT-140</td>
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<tr>
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<td>CET-123</td>
<td>Surveying I</td>
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</tr>
<tr>
<td></td>
<td>CET-125</td>
<td>Environmental Science</td>
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<td>ENG-101</td>
<td>English Composition I</td>
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<td>MAT-212</td>
<td>Statistics</td>
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<td>PHY-102</td>
<td>Physics I</td>
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<td></td>
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<tr>
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<td>CET-232</td>
<td>Statics</td>
<td>3</td>
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<tr>
<td></td>
<td>CET-235</td>
<td>Civil Engineering CAD I</td>
<td>4</td>
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<td></td>
<td>CET-237</td>
<td>Soil Mechanics</td>
<td>3</td>
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<td></td>
<td>CET-239</td>
<td>Strength of Materials</td>
<td>3</td>
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<tr>
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<td>ENG-202</td>
<td>Technical Writing</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
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<tr>
<td>Fourth Semester</td>
<td>CET-###</td>
<td>Special Topics in Civil and Environmental Technologies</td>
<td>3</td>
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<tr>
<td></td>
<td>CET-243</td>
<td>Structural Design</td>
<td>3</td>
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<td>CET-246</td>
<td>Managing Civil Engineering Projects</td>
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<td>CET-247</td>
<td>High Performing Buildings</td>
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<td>CET-248</td>
<td>Environmental Regulations</td>
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<tr>
<td></td>
<td><strong>Credits Required for Graduation</strong></td>
<td></td>
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Approved Technical Electives for the CET Program

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CET-245</td>
<td>Civil Engineering CAD II</td>
<td>3</td>
</tr>
<tr>
<td>CET-249</td>
<td>Surveying II</td>
<td>3</td>
</tr>
<tr>
<td>EIT-120</td>
<td>Emerging Technologies</td>
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Special Topics in Civil and Environmental Technologies - CET-###

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CET-250</td>
<td>Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CET-251</td>
<td>Hydraulics and Hydrology</td>
<td>3</td>
</tr>
</tbody>
</table>
The Computer Software Technology (CST) program emphasizes the database and computer programming skills required by business and industry. The first two semesters provide a foundation in programming and database concepts. During the third and fourth semesters, students are broadly trained in database development, programming, and testing. Students will learn about operating systems, Java, C++, visual programming, Oracle, SQL, software quality assurance, and networking fundamentals.

This program of study will assist students in gaining the skills to perform typical software technician quality assurance tasks such as reviewing functional software requirements; developing test plans, test cases and test scripts according to established guidelines; executing test plans; reporting software defects; and verifying software fixes.

Upon program completion, students will have the skills and knowledge to obtain a position in the software industry and/or transfer to a computer-related baccalaureate program. Graduates may pursue job opportunities as computer system administrators, database administrators, software developer assistants and quality assurance software test technicians.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:

- Computer Software Technology will prepare graduates with the technical and managerial skills necessary to enter careers in the design, application, installation, operation, and/or maintenance of computer systems.
- Graduates typically have strengths in the building, testing, operation, and maintenance of existing computer systems and their associated software systems.

Objectives of the Program:

- Implement algorithms to write computer programs in any language.
- Design and implement a database to specifications.
- Troubleshoot computer programs beyond help provided by IDES (EG detect logical errors).
- Use correct syntax in writing computer programs.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Computer Software Technology (HEGIS #5103). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
# COMPUTER SOFTWARE TECHNOLOGY (CST)

*As of the Spring 2013 Term, this program is not accepting new students.*

## First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CST-102</td>
<td>Programming Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-199</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-142</td>
<td>Introduction to the Major: Computer Software Technology</td>
<td>1</td>
</tr>
<tr>
<td>MAT-140</td>
<td>College Algebra and Trigonometry</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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## Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST-103</td>
<td>Introduction to Programming with C++</td>
<td>3</td>
</tr>
<tr>
<td>CST-104</td>
<td>Introduction to Databases Using Access &amp; SQL</td>
<td>3</td>
</tr>
<tr>
<td>ENG-202</td>
<td>Technical Writing and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>MAT-210</td>
<td>Analytical Geometry and Calculus</td>
<td>4</td>
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<tr>
<td>PHY-102</td>
<td>Physics I</td>
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## Third Semester

<table>
<thead>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CPT-233</td>
<td>Local Area Networks</td>
<td>3</td>
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<tr>
<td>CST-202</td>
<td>Introduction to JAVA</td>
<td>3</td>
</tr>
<tr>
<td>CST-203</td>
<td>Introduction to Visual Programming</td>
<td>3</td>
</tr>
<tr>
<td>CST-204</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CST-205</td>
<td>OOP Using C++</td>
<td>3</td>
</tr>
<tr>
<td>MAT-212</td>
<td>Statistics</td>
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## Fourth Semester

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<th>Course</th>
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<tbody>
<tr>
<td>COM-205</td>
<td>LINUX Operating System</td>
<td>4</td>
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<tr>
<td>CPT-213</td>
<td>Microcontrollers</td>
<td>3</td>
</tr>
<tr>
<td>CPT-223</td>
<td>Microcontrollers Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CST-206</td>
<td>Advanced Database (Oracle) with SQL</td>
<td>3</td>
</tr>
<tr>
<td>CST-207</td>
<td>JAVA II</td>
<td>3</td>
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<td>TEC-###</td>
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## Credits Required for Graduation

| Credits Required for Graduation | 69-70 |

## Approved Technical Electives for the CST Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST-210</td>
<td>Advanced Visual Programming</td>
<td>3</td>
</tr>
<tr>
<td>CST-240</td>
<td>Web Programming with XHTML and JAVA Script</td>
<td>3</td>
</tr>
<tr>
<td>EIT-120</td>
<td>Emerging Technologies</td>
<td>3</td>
</tr>
<tr>
<td>INT-530</td>
<td>Cooperative Education Internship</td>
<td>4</td>
</tr>
</tbody>
</table>
The Electronics Engineering Technology (EET) program prepares students to work in all phases of design, development, production, and maintenance in the fields of communications, automatic controls, digital systems, computers, instrumentation, and others. Graduates assist engineers in the design, development and production of modern electronic equipment for such applications as data processing, digital communications, and computer technology. Electronics Engineering Technology graduates have obtained positions as PC technicians, network consultants, electronic technicians, electronic sales associates, and field service technicians. Their duties have included: assisting engineers in the design, test, and production of modern electronic equipment; repairing copiers; help-desk support technicians; installing and troubleshooting telephone wiring; instrument maintenance and repair; instrument sales; etc.

The curriculum provides students with an understanding of engineering technology and scientific concepts within the broad scope of electronics engineering technology. The course work emphasizes the application of this knowledge to current industrial practices. Technology software applications are integrated into the curriculum.

Theoretical analyses and laboratory experiments enable the student to explore the design, testing, analysis and applications of circuits and systems. Creative design projects relating to circuits and systems involving both discrete components and integrated circuits are included as part of the course work.

The program provides the student with the required academic background to either continue toward a baccalaureate degree or obtain a technical position in the electronics or computer industries following graduation.

The EET program is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC of ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700.
ACADEMIC PROGRAMS

ELECTRONICS ENGINEERING TECHNOLOGY (EET) – A.A.S. DEGREE

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:
Electronics Engineering Technology program will prepare students:

• With the technical and managerial skills necessary to enter careers in the design, application, installation, manufacturing, operation and/or maintenance of electrical/electronic(s) systems.

• To develop a desire for lifelong learning through certifications, higher studies and professional societies.

• To function effectively as an ethical member of a diverse technical team and contribute individually to the team

Objectives of the Program:
Our graduates will be able to:

• Apply the knowledge, techniques, skills, and modern tools of electronic engineering technology

• Apply knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge

• Conduct standard tests and measurements, and to conduct, analyze, and interpret experiments

• Function effectively as a member of a technical team

• Identify, analyze, and solve electronic engineering technology problems

• Apply written, oral, and graphical communication in both technical and non-technical environments

• Identify and use appropriate technical literature

• Create a desire for lifelong learning through certifications, higher studies and professional societies

• Demonstrate a professional and ethical behavior, including a respect for diversity

• Demonstrate a commitment to quality, timeliness, and continuous improvement

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Electronics Engineering Technology (HEGIS #5310). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
### First Semester

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<th>Course Title</th>
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<tbody>
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<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>EET-103</td>
<td>Circuit Analysis I Laboratory</td>
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<tr>
<td>EET-104</td>
<td>Circuit Analysis I</td>
<td>5</td>
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<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
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<td>MAT-140</td>
<td>College Algebra and Trigonometry</td>
<td>4</td>
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### Second Semester

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<tbody>
<tr>
<td>CPT-231</td>
<td>Visual Programming</td>
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<td>EET-102</td>
<td>Electronics I</td>
<td>4</td>
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<td>EET-112</td>
<td>Electronics I Laboratory</td>
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<td>EET-120</td>
<td>Circuit Analysis II Laboratory</td>
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<td>EET-121</td>
<td>Circuit Analysis II</td>
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<td>HUM-199</td>
<td>Speech</td>
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<td>MAT-210</td>
<td>Analytical Geometry and Calculus</td>
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<th>Course Title</th>
<th>Credits</th>
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<td>Digital Circuits and Systems</td>
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<tr>
<td>CPT-221</td>
<td>Digital Laboratory</td>
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<td>CPT-235</td>
<td>Introduction to Programming</td>
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<td>EET-211</td>
<td>Electronics II</td>
<td>3</td>
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<tr>
<td>EET-221</td>
<td>Project Laboratory</td>
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<tr>
<td>EET-245</td>
<td>Control Systems</td>
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<td>PHY-102</td>
<td>Physics I</td>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CPT-213</td>
<td>Microcontrollers</td>
<td>3</td>
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<tr>
<td>CPT-223</td>
<td>Microcontrollers Laboratory</td>
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<tr>
<td>CPT-233</td>
<td>Local Area Networks</td>
<td>3</td>
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<tr>
<td>EET-212</td>
<td>Introduction to Telecommunications</td>
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<td>PHY-201</td>
<td>Physics II</td>
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### Credits Required for Graduation

**69**

### Approved Technical Electives

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EET-246</td>
<td>Electrical Machinery</td>
<td>3</td>
</tr>
<tr>
<td>EET-248</td>
<td>Embedded Systems</td>
<td>3</td>
</tr>
<tr>
<td>EET-250</td>
<td>EET Internship</td>
<td>3</td>
</tr>
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</table>
INDUSTRIAL ELECTRONICS TECHNOLOGY –  
COMPUTER TECHNOLOGY TRACK (IETC) – A.O.S. DEGREE

Chairperson – Alberto Aponte  
Ph.D., The City College The City University of New York  
M.E.E.E., The City College The City University of New York  
M.Phil., The City College The City University of New York  
B.S.E.E., Universidad de Antioquia Medellin Colombia  
Room 306A, Extension 5749

The Industrial Electronics Technology – Computer Technology Track (IETC) program prepares students for employment as electronics technicians, field service technicians, computer technicians, network administrators, LAN administrators, and research and development engineering assistants. The program emphasizes skill-based instruction that enables graduates to support the testing, installation, troubleshooting, and maintenance of consumer and industrial electronic and computer equipment. The IETC program leads to an associate in occupational studies (A.O.S.) degree.

The IETC program introduces students to computer programming, PC support, computer architecture, and networking concepts. Students perform a variety of PC laboratory experiments including configuring, administering and troubleshooting LINUX and Windows networks.

The IETC program prepares students for various certifying exams in the computer and telecommunications fields. These include the following: Certified Electronics Technician (CET), A+ Certified Technician, NT Certified Technician, and Microsoft Certified Technical Specialist (MCTS). The program provides students with the required academic background to obtain technical positions in the electronics, computer software technology, or computer industries following graduation.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:

• The program will prepare graduates with the technical and project management skills necessary to enter careers in the design, application, installation, operation and/or maintenance of electronic systems, computer systems, networks, and data communications systems dedicated to the processing and transfer of information.

• Graduates typically have strengths in the building, testing, operation, and maintenance of existing hardware and software systems,

Objectives of the Program:

• Fluency with electrical and electronic circuits.

• Working knowledge in basic test equipment.

• Comprehension of binary math, related codes and circuits.

• Competence with computer and networking hardware.

• Knowledgeable in computer and networking software.

• Aptitude in applying knowledge crucial to network environment.

Course Requirements for the Associate in Occupational Studies (A.O.S.) degree in Industrial Electronics Technology – Computer Technology Track (HEGIS #5310). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
## ACADEMIC PROGRAMS

### INDUSTRIAL ELECTRONICS TECHNOLOGY – COMPUTER TECHNOLOGY TRACK (IETC)

#### First Semester

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<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>DC-110* or DC-113**</td>
<td>DC Circuits Laboratory</td>
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</tr>
<tr>
<td>DC-112* or DC-115**</td>
<td>DC Circuits</td>
<td>4</td>
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<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-149</td>
<td>Introduction to the Major: IETC-NET</td>
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</tr>
<tr>
<td>MAT-120</td>
<td>Algebra and Trigonometry I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
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</tbody>
</table>

*Continuing Students will take DC-110 and DC-112.

**New Students Only will take DC-113 and DC-115.

#### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AC-120</td>
<td>AC Circuits Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>AC-121</td>
<td>AC Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CPN-112</td>
<td>Networking Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>DIL-122</td>
<td>Digital Logic</td>
<td>4</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT-130</td>
<td>Algebra and Trigonometry II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>17</strong></td>
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#### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CPN-231</td>
<td>PC Hardware Technology</td>
<td>3</td>
</tr>
<tr>
<td>CPN-232</td>
<td>Introduction to PC Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>DR-220</td>
<td>Digital Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>DR-222</td>
<td>Digital Systems</td>
<td>3</td>
</tr>
<tr>
<td>RET-211*</td>
<td>Renewable Energy Technologies I</td>
<td>3</td>
</tr>
<tr>
<td>SEC-200</td>
<td>Semiconductors and Electronic Circuits Lab</td>
<td>1</td>
</tr>
<tr>
<td>SEC-201</td>
<td>Semiconductors and Electronic Circuits</td>
<td>3</td>
</tr>
</tbody>
</table>

*Students completing a second degree in Networking Technology will take CPN-250 instead of RET-211.

*Continued on next page*
## ACADEMIC PROGRAMS

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPN-251</td>
<td>Computer Networks Infrastructure Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>DCM-203</td>
<td>Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>ESS-242</td>
<td>Electronics Security Systems</td>
<td>3</td>
</tr>
<tr>
<td>RET-212*</td>
<td>Renewable Energy Technologies II</td>
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<tr>
<td>TEC-###</td>
<td>Approved Technical Elective</td>
<td>3-4</td>
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<td><strong>Total Credits</strong></td>
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</table>

### Credits Required for Graduation

65-66

*Students completing a second degree in Networking Technology will take CPN-254 instead of RET-212.*

### Approved Technical Electives for the IETC Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COM-205</td>
<td>LINUX Operating System</td>
<td>4</td>
</tr>
<tr>
<td>EIT-120</td>
<td>Emerging Technologies</td>
<td>3</td>
</tr>
<tr>
<td>INT-530</td>
<td>Cooperative Education Internship</td>
<td>4</td>
</tr>
<tr>
<td>MOT-200</td>
<td>Management of Technology</td>
<td>3</td>
</tr>
<tr>
<td>PET-244</td>
<td>Power Electronics Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

The IETC student may select from any of the courses listed above. COM-205 will benefit those students considering employment in the software industry while MOT-200 will benefit those that would like to understand the operation of medium and large technology companies. PET-244 is recommended for students considering employment with the focus on the electronics interface with computer technology and the various power systems that regulate their operation.
The Basic Electronics Technology (BET) certificate program provides a solid foundation in electronics theory and practice, including DC and AC circuits, semiconductors, electronic systems, receivers and digital logic. College-level mathematics assures theoretical competency, and hands-on laboratory time is sufficient to prepare the student as an electronics technician. Digital systems are studied in the third semester to provide students with technical skills in this area. Students in this program get the preparation to take and pass the exam for the CET (Certified Electronics Technician) Industrial Certification.

Graduates may pursue TCI’s Industrial Electronics Technology – Computer Technology Track degree program, requiring 24-25 additional credits.

**Course Requirements** for the Certificate in Basic Electronics Technology (HEGIS #5310). The program length is 12 months or three semesters.

### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CPN-231</td>
<td>PC Hardware Technology</td>
<td>3</td>
</tr>
<tr>
<td>DC-110</td>
<td>DC Circuits Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>DC-112</td>
<td>DC Circuits</td>
<td>4</td>
</tr>
<tr>
<td>MAJ-149</td>
<td>Introduction to the Major: IETC-NET</td>
<td>1</td>
</tr>
<tr>
<td>MAT-120</td>
<td>Algebra and Trigonometry I</td>
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<tr>
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### Second Semester

<table>
<thead>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AC-120</td>
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<tr>
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<td>AC Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CPN-112</td>
<td>Networking Fundamentals</td>
<td>3</td>
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<tr>
<td>DIL-122</td>
<td>Digital Logic</td>
<td>4</td>
</tr>
<tr>
<td>MAT-130</td>
<td>Algebra and Trigonometry II</td>
<td>3</td>
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### Third Semester

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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DCM-202</td>
<td>Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>DR-220</td>
<td>Digital Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>DR-222</td>
<td>Digital Systems</td>
<td>3</td>
</tr>
<tr>
<td>RET-211</td>
<td>Renewable Energy Technologies I</td>
<td>3</td>
</tr>
<tr>
<td>SEC-200</td>
<td>Semiconductors and Electronic Circuits Lab</td>
<td>1</td>
</tr>
<tr>
<td>SEC-201</td>
<td>Semiconductors and Electronic Circuits</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

**Credits Required for Completion** 44
The Industrial Electronics Technology – Electronic Security Systems (ESS) degree program teaches students both the fundamentals and the latest advancements in state-of-the-industry electronic security systems. In today’s environment, where security is of utmost importance, this program prepares students for employment opportunities that emphasize facilities and asset protection.

Technical developments, especially in electronics and telecommunications have considerably improved and enlarged the efficiency in protecting homes, businesses, manufacturing facilities and communities. As the demand for security and privacy safeguards grows, skilled and dependable technicians will be required to install, configure, program, maintain and repair complex electronic security systems. Students will gain insight into the key elements of protecting facilities and other assets from unwanted intrusion.

The program will include studies involving the following technologies:

- intrusion detection and surveillance using closed circuit television (CCTV);
- access control using sensor control and analysis, luggage screening and personnel screening; and
- biometrics which implements face, fingerprint and retina analysis.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Industrial Electronics Technology – Electronic Security Systems (HEGIS # 5310). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
INDUSTRIAL ELECTRONICS TECHNOLOGY –
ELECTRONIC SECURITY SYSTEMS (ESS)

As of the Fall 2012 Term, this program is not accepting new students

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>DC-110 DC Circuits Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>DC-112 DC Circuits</td>
<td>4</td>
</tr>
<tr>
<td>HUM-110 Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-146 Introduction to the Major: ESS-IENET-IETC</td>
<td>1</td>
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<tr>
<td>MAT-120 Algebra and Trigonometry I</td>
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<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AC-120 AC Circuits Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>AC-121 AC Circuits</td>
<td>3</td>
</tr>
<tr>
<td>CPT-101 Computer Architecture Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>DS-202 Network and Wireless Security</td>
<td>4</td>
</tr>
<tr>
<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT-130 Algebra and Trigonometry II</td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DS-201 Closed Circuit Television (CCTV)</td>
<td>4</td>
</tr>
<tr>
<td>DS-213 Introduction to Security and Safety Codes</td>
<td>3</td>
</tr>
<tr>
<td>EC-220N Semiconductors Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>EC-221N Semiconductors and Electronic Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ENG-102 English Composition II</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ASE-### Arts and Sciences Elective (Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
<td>3-4</td>
</tr>
<tr>
<td>DS-221 Industrial Electronic Sensor and Biometrics Technology</td>
<td>3</td>
</tr>
<tr>
<td>DS-231 Electronic Security Systems</td>
<td>3</td>
</tr>
<tr>
<td>DS-241 Surveillance Systems Design and Layout</td>
<td>2</td>
</tr>
<tr>
<td>DS-290 Security Systems Integration Project</td>
<td>3</td>
</tr>
<tr>
<td>TEC-### Technical Elective</td>
<td>3-4</td>
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<td><strong>Total Credits</strong></td>
<td><strong>17-19</strong></td>
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</table>

| Credits Required for Graduation | 65-67 |

<table>
<thead>
<tr>
<th>Approved Technical Electives for the ESS Program</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EIT-120 Emerging Technologies</td>
<td>3</td>
</tr>
<tr>
<td>INT-530 Cooperative Education Internship</td>
<td>4</td>
</tr>
<tr>
<td>ST-221 Satellite Communications</td>
<td>4</td>
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</table>
The Industrial Electronics Technology – Railway Electronic Systems (IETR) program is an associate degree program designed to incorporate railway-specific job skills into the industrial electronics associate degree program. As such, IETR is based on TCI’s existing Industrial Electronics Technology program.

Railway electronic systems are used world-wide on mass transit, commuter and freight railways to provide for the safe operation of train movements. In addition, electronic systems are used to process automatic fares, guide electrical propulsion systems, provide communication systems, present passenger information systems, and direct rail vehicle systems.

The IETR program includes courses in railway signaling; railway communications and automatic fare collection systems; railway traction electrification systems; and railway vehicle electrical and electronic systems. Some of the skills practiced by railway electronic system technicians include installing, maintaining and repairing computerized electronic control systems for coordinated passenger and freight train traffic; maintaining electrical power systems; and maintaining and repairing communication and fare collection systems.

Course Requirements for the Associate of Applied Science (A.A.S.) degree in Industrial Electronics Technology – Railway Electronic Systems (HEGIS # 5310). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
As of the Fall 2012 Term, this program is not accepting new students

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
</tr>
<tr>
<td>MAJ-147</td>
<td>Introduction to the Major: Railway</td>
</tr>
<tr>
<td>MAT-120</td>
<td>Algebra and Trigonometry I</td>
</tr>
<tr>
<td>RET-112</td>
<td>Mechatronics I</td>
</tr>
<tr>
<td>RES-101</td>
<td>Railway System Fundamentals</td>
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<th>Second Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPT-101</td>
<td>Computer Architecture Fundamentals</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
</tr>
<tr>
<td>MAT-130</td>
<td>Algebra and Trigonometry II</td>
</tr>
<tr>
<td>RES-124</td>
<td>Tools and Measurements for Railway Technicians</td>
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<tr>
<td>RET-121</td>
<td>Mechatronics II</td>
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<table>
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<th>Third Semester</th>
<th>Credits</th>
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<tr>
<td>ASE-###</td>
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<tr>
<td>CM-200</td>
<td>Analog and Wireless Communications Laboratory</td>
</tr>
<tr>
<td>CM-201</td>
<td>Analog and Wireless Communications</td>
</tr>
<tr>
<td>EC-220N</td>
<td>Semiconductors Laboratory</td>
</tr>
<tr>
<td>EC-221N</td>
<td>Semiconductors and Electronic Circuits</td>
</tr>
<tr>
<td>RES-220</td>
<td>Introduction to Railway Signaling</td>
</tr>
<tr>
<td>RES-222</td>
<td>Rail Vehicle Electrical and Electronic Systems</td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASE-###</td>
<td>Arts and Sciences Elective</td>
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<tr>
<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
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<tr>
<td>ENG-202</td>
<td>Technical Writing and Presentations</td>
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<tr>
<td>RES-221</td>
<td>Railway Communications and</td>
</tr>
<tr>
<td>Automatic Fare Collection Systems</td>
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<tr>
<td>RES-223</td>
<td>Railway Traction Electrification Systems</td>
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<td>TEC-###</td>
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**Credits Required for Graduation**: 69-72

**Approved Technical Electives for the IETR Program**

<table>
<thead>
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<th>Credits</th>
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<td>INT-530</td>
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<td>RES-225</td>
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</table>
Although the disciplines of Industrial Electronics Technology (IETC) and Networking Technology (NET) represent major professional fields in their own right, joining the two programs into a single career objective offers a number of advantages and is a natural pairing of professional fields.

The IETC program provides a broad general-purpose electronic technician education that contains a networking component. Students learn fundamental electronic theory and instrumentation skills in addition to basic computer technology practices. The NET program offers a concentration in networking. The NET program also requires additional liberal arts courses, which employers prefer. The combination of these two programs provides the student increased employment opportunities over either individual degree.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:

- The program will prepare graduates with the technical and project management skills necessary to enter careers in the design, application, installation, operation and/or maintenance of electronic systems, computer systems, networks, dedicated to the processing and transfer of information.
- Graduates typically have strengths in the building, testing, operation, and maintenance of existing electronics, hardware and software systems, and networks.

Objectives of the Program:

- Fluency with electrical and electronic circuits.
- Working knowledge in basic test equipment.
- Comprehension of binary math, related codes and circuits.
- Competence with computer and networking hardware.
- Knowledgeable in computer and networking software.
- Aptitude in applying knowledge crucial to network environment.
- Proficiency as a team member in a diverse and synergistic environment.
INDUSTRIAL ELECTRONICS TECHNOLOGY –
COMPUTER TECHNOLOGY TRACK
AND NETWORKING TECHNOLOGY (IENET)

As of the Fall 2012 Term, this program is not accepting new students

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>DC-110</td>
<td>DC Circuits Laboratory</td>
</tr>
<tr>
<td>DC-112</td>
<td>DC Circuits</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
</tr>
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<td>MAJ-149</td>
<td>Introduction to the Major: IETC-NET</td>
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<tr>
<td>MAT-120</td>
<td>Algebra and Trigonometry I</td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AC-120</td>
<td>AC Circuits Laboratory</td>
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<tr>
<td>AC-121</td>
<td>AC Circuits</td>
</tr>
<tr>
<td>DIL-122</td>
<td>Digital Logic</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
</tr>
<tr>
<td>MAT-130</td>
<td>Algebra and Trigonometry II</td>
</tr>
<tr>
<td>SC-121</td>
<td>Semiconductors Theory and Lab</td>
</tr>
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<table>
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<tr>
<th>Third Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPN-112</td>
<td>Networking Fundamentals</td>
</tr>
<tr>
<td>CPN-121</td>
<td>Desktop Environments</td>
</tr>
<tr>
<td>CPN-231</td>
<td>PC Hardware Technology</td>
</tr>
<tr>
<td>DR-220</td>
<td>Digital Systems Laboratory</td>
</tr>
<tr>
<td>DR-222</td>
<td>Digital Systems</td>
</tr>
<tr>
<td>ECS-220</td>
<td>Electronic Circuits and Systems Laboratory</td>
</tr>
<tr>
<td>ECS-221</td>
<td>Electronic Circuits and Systems</td>
</tr>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPN-232</td>
<td>Introduction to PC Operating Systems</td>
</tr>
<tr>
<td>CPN-240</td>
<td>Supporting Network Clients Operating Systems</td>
</tr>
<tr>
<td>CPN-254</td>
<td>Directory Services Design and Administration</td>
</tr>
<tr>
<td>DCM-202</td>
<td>Data Communications</td>
</tr>
<tr>
<td>ENG-202</td>
<td>Technical Writing and Presentation</td>
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<tr>
<td>OP-240</td>
<td>Operational Amplifiers Laboratory</td>
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<td>OP-241</td>
<td>Operational Amplifiers</td>
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## Fifth Semester

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<td>ASE-###</td>
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<td>CPN-251</td>
<td>Computer Networks Infrastructure</td>
<td>3</td>
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<tr>
<td>ETC-242</td>
<td>Embedded Systems Programming</td>
<td>3</td>
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<tr>
<td>MOT-200</td>
<td>Management of Technology</td>
<td>3</td>
</tr>
<tr>
<td>TEC-###</td>
<td>Networking Technical Elective</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Total Credits** 15-17

**Credits Required for Graduation** 84-86

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### DOUBLE MAJOR (IENET) – TECHNICAL ELECTIVES

Below are the recommended technical electives for the IENET program. Students can choose technical electives to develop a specialty in one of three different areas. However, students must adhere to the course’s prerequisite or corequisite requirements as reflected in the course descriptions that follow this section.

#### DOUBLE MAJOR (IENET) - TECHNICAL ELECTIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM-204</td>
<td>Scripting Languages</td>
<td>3</td>
</tr>
<tr>
<td>COM-205</td>
<td>Linux Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>CPN-209</td>
<td>Network Security Essentials</td>
<td>3</td>
</tr>
<tr>
<td>CPN-223</td>
<td>Internetworking with Cisco Routers</td>
<td>3</td>
</tr>
<tr>
<td>CPN-228</td>
<td>Installing, Configuring and Administering SQL Servers</td>
<td>3</td>
</tr>
<tr>
<td>EIT-120</td>
<td>Emerging Technologies</td>
<td>3</td>
</tr>
<tr>
<td>INT-530</td>
<td>Cooperative Education Internship</td>
<td>4</td>
</tr>
</tbody>
</table>
The Networking Technology (NET) program focuses on the computer networking skills required by business and industry. The program leads to an Associate in Applied Science degree. Whereas the IET degrees offer a broad-based educational experience in technology, this degree program targets computer networking technology.

The student will receive theoretical instruction and practical hands-on experience with the most widely used network technologies. TCI offers a broad exposure to networking that includes topics such as: ethernet networks; TCP/IP; network topologies; data transport modes (e.g., Fiber Distributed Data Interface (FDDI), Internet/Intranets); WAN/LAN; software architectures; physical design; security and encryption; and hubs, routers, bridges, and switches.

The student will receive preparation for the Microsoft certification examinations that include knowledge of networking essentials, Windows Client, and Windows Server. This skill-based course of studies prepares students for the A+, N+, CCNA, MCTS (Microsoft Certified Technical Specialist) and MCITP (Microsoft Certified Information Technology Professional) examinations. The material develops the student’s proficiency to implement, administer, and trouble-shoot information systems that incorporate Microsoft Windows Servers and similar operating systems in an enterprise-computing environment.

**PROGRAM GOALS AND OBJECTIVES**

**Goals of the Program:**

- Networking Technology will prepare graduates with the technical and project management skills necessary to enter careers in the design, application, installation, operation and/or maintenance of computer systems, and networks dedicated to the processing and transfer of information.
- Graduates typically have strengths in the building, testing, operation, and maintenance of existing hardware and software systems.

**Objectives of the Program:**

- Knowledgeable in computer and networking hardware.
- Knowledgeable in computer and networking software.
- Aptitude in applying knowledge crucial to network environment.
- Proficiency as a team member in a diverse and synergistic environment.
- Comprehension of binary math, related codes and circuits.

**Course Requirements** for the Associate in Applied Science (A.A.S.) degree in Networking Technology (HEGIS #5104). The program length is two years.

*Full course offerings are available over the summer to accelerate your time to degree completion to under two years.*
NETWORKING TECHNOLOGY (NET) – TECHNICAL ELECTIVES

Below are the technical electives for the NET program. Students can choose technical electives to develop a specialty in one of three different areas. However, students must adhere to the course’s prerequisite or corequisite requirements as reflected in the course descriptions that follow this section.

NETWORKING TECHNOLOGY (NET) – TECHNICAL ELECTIVES

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
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<td>CPN-215</td>
<td>Ethics and Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CPN-216</td>
<td>Network Defense and Countermeasures</td>
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</tr>
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<td>CPN-228</td>
<td>Installing, Configuring and Administering SQL Servers</td>
<td>3</td>
</tr>
<tr>
<td>CPN-299</td>
<td>Enterprise Administration</td>
<td>3</td>
</tr>
<tr>
<td>DCM-202</td>
<td>Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>EIT-120</td>
<td>Emerging Technologies</td>
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</tr>
<tr>
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</tr>
</tbody>
</table>
Robots, also known as intelligent automation systems, are being used today in health care, military operations, police work, hazardous material removal, house cleaning, manufacturing, and many other areas. TCI graduates will be prepared to work in the field of robotics and automation technology by learning knowledge across different disciplines so that they will be able to integrate, maintain, and troubleshoot complex electrical and electronic circuits, mechanical systems, and software controllers.

PROGRAM GOALS AND OBJECTIVES

The Robotics and Automation Technology program will prepare graduates with the required skills in mechanical, electrical, electronic, and software necessary to enter careers in operations and maintenance of any intelligent automation system.

Graduates will be knowledgeable in building, installing, testing and maintaining intelligent automation systems.

- Understand and build mechanical assembly models.
- Understand and be able to work and troubleshoot electrical and electronic circuitry.
- Understand and be able to code and troubleshoot robotic and automation systems with a programming language.
- Understand and work with sensors and actuator.
- Understand a given problem and be able to come up with a solution.
- Learn to work effectively in teams.
- Learn to communicate (oral and written) effectively.

Course Requirements for the Associates in Applied Science (AAS) degree in Robotics and Automation Technology (HEGIS #5311). The program length is two years.
# ACADEMIC PROGRAMS

## ROBOTICS AND AUTOMATION TECHNOLOGY (RNA)

*As of the Fall 2012 Term, this program is not accepting new students*

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110 Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-145 Introduction to Major: RNA</td>
<td>1</td>
</tr>
<tr>
<td>MAT-120 Algebra &amp; Trigonometry I</td>
<td>3</td>
</tr>
<tr>
<td>RNA-101 Fundamentals of Robotics &amp; Automation</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG-202 Technical Writing and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>MAT-130 Algebra &amp; Trigonometry II</td>
<td>3</td>
</tr>
<tr>
<td>RNA-111 Mechatronics I</td>
<td>4</td>
</tr>
<tr>
<td>RNA-114 Solid Modeling</td>
<td>3</td>
</tr>
<tr>
<td>RNA-115 Programming Robots I</td>
<td>4</td>
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<td><strong>Total Credits</strong></td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASE-###* Arts and Sciences Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
<td></td>
</tr>
<tr>
<td>RNA-211 Mechatronics II</td>
<td>4</td>
</tr>
<tr>
<td>RNA-215 Programming Robots II</td>
<td>4</td>
</tr>
<tr>
<td>RNA-217 Robotic Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>RNA-240 Intro to Autonomous System</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
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<table>
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<tr>
<th>Fourth Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ASE-###* Arts and Sciences Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, HIS, HUM, LIT, PSY and SOC)</td>
<td></td>
</tr>
<tr>
<td>RNA-222 Robotics Project</td>
<td>4</td>
</tr>
<tr>
<td>RNA-234 Special Topics in Robotics</td>
<td>4</td>
</tr>
<tr>
<td>TEC-### Networking Technical Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>Choices:</td>
<td></td>
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<tr>
<td>MOT-200 Management of Technology</td>
<td>(3)</td>
</tr>
<tr>
<td>INT-530 Internship</td>
<td>(4)</td>
</tr>
<tr>
<td>CPT-244 Programmable Logic Controllers</td>
<td>(3)</td>
</tr>
<tr>
<td>EIT-120 Emerging Technologies</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>14-16</strong></td>
</tr>
</tbody>
</table>

**Credits Required for Graduation** 65-67

*Students may only select one 4-Credit Course for the Arts and Sciences Electives. The other must be a 3-Credit Course.*
AC-120  AC Circuits Laboratory  0-3-1
Experiments are performed to verify the theory and concepts covered in AC-121. These include measurement of sine waves, phase shift, frequency response, current, voltage, and power relations in AC circuits.
Prerequisite:  DC-110 or DC-113
Corequisite:  AC-121

AC-121  AC Circuits  3-0-3
An introduction to the basic principles of AC electricity, magnetism, electromagnetism, the generation of a sine wave, average and RMS values of alternating signals. Students will learn to perform critical calculations involving impedance, current, voltage, power, inductance, capacitance, and time constants. Principles of transformers, filters and resonance circuits are studied.
Prerequisites:  DC-112 or DC-115; MAT-120 or MAT-115

AUT-101  Integrated Automotive Systems  3-0-3
An introduction to the automotive industry, including automotive history, safety practices, vehicle subsystems, service procedures and publications, professional responsibilities and automotive maintenance. This course provides a study of the integration of automotive vehicle systems and basic operational knowledge, care and maintenance of engine, fuel, ignition, suspension, brakes, electrical, and drive train systems.

AUT-102  Engine Performance  4-3-5
This course covers the theory, construction, inspection, diagnosis and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures and service information.

AUT-103  Automotive Brake Systems  4-3-5
This course covers principles of operation and types, diagnosis, service and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydraulically powered boost and anti-lock and parking break systems. Upon completion, students should be able to diagnose service and repair various automotive braking systems.

AUT-104  Fundamentals of Automotive Electricity  2-2-3
This course introduces the basic theory of electricity and automotive specific electrical/electronic components and systems. Ohm’s law/Watt’s law, Kirchhoff’s law, analysis of series, parallel, and series-parallel circuits are studied in both Direct Current (DC) and Alternating Current (AC). Reading and understanding electrical wiring diagrams and troubleshooting techniques with the use of Automotive service manuals/p-based diagnostic software. Circuits using various electrical components are built in class to demonstrate the results obtained in the theory. The use and operation of common automotive diagnostic tools: Digital Multi meter, Logic Probe, Power Probe, basic test light, are used to implement labs and take measurements.

AUT-105  Engine Repair  4-3-5
This course covers service/repair/rebuilding of block, head and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.
AUT-107  Manual Drive Trains and Axles  4-3-5
This course provides a laboratory setting to enhance the skills for diagnosing and repairing manual transmissions/transaxles, clutches, driveshafts, axles and final drives. Topics include theory of torque, power flow and manual drive train service and repair using appropriate service information, tools and equipment. Upon completion students should be able to explain operational theory and diagnose and repair manual drive trains.

AUT-109  Suspension and Steering  4-3-5
This course covers principles of operations, types and diagnosis/repair of suspension and steering systems. Topics include manual and power steering systems and standard electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair various steering systems.

AUT-110  Automotive Heating and Air Conditioning  4-3-5
This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment and service information.

AUT-111  Automotive Transmissions and Transaxies  4-3-5
This course covers operation, diagnosis, service and repair of automatic transmission/transaxles. Topics include hydraulic, pneumatic, mechanical and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

AUT-118  Automotive Electrical/Electronic Systems  3-3-4
This course covers basic electrical theory and wiring diagrams, test equipment and diagnosis/repair/replacement of batteries, starters, alternators and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting and basic accessory systems problems. Upon completion, students should be able to diagnose, test and repair the basic electrical components of an automobile.

Prerequisite:  AUT-104

CET-110  Materials Science  3-0-3
This course studies the materials used in construction, including aggregates, cements, Portland cement concrete, timber, asphalts, bituminous concrete mixes, steel, and masonry. Sources, methods of manufacture and handling, and standard tests are covered, as are environmental effects.

CET-111  Fundamentals of Civil and Environmental Technology  2-2-3
This course introduces civil engineering materials and analysis, problem solving with hand calculator and computer applications, standard laboratory procedures and reporting, and engineering graphics, including instruction in Blue Print Reading and Computer Aided Drafting.

CET-123  Surveying I  2-3-3
The course introduces fundamental surveying principles and methods, including the measuring of distances, angles, difference in elevation, and instruction and practice in the care and use of equipment.

Prerequisite:  MAT-140 or MAT-135

CET-125  Environmental Science  2-2-3
This course emphasizes quantitative analysis of environmental problems and introduces the student to engineering methods for treatment and prevention of water, soil, and air pollution. The laboratory includes both field and indoor testing of air and soil quality as well as fieldtrips to environmental facilities.
CET-232 Statics 2-2-3
Principles of mechanics force systems, equilibrium structures, distributed forces, and friction.
Prerequisite: MAT-140 or MAT-135

CET-235 Civil Engineering CAD I 4-0-4
This course covers civil drafting techniques and computer aided design methods using AutoCAD software. The student learns drawing terminology, drawing creation and editing, file manipulation and plotting. The student is introduced to dimensions, scales and symbols. Improved skills are also developed in the reading and interpretation of typical working drawings from civil engineering and construction projects.
Prerequisite: MAT-140 or MAT-135

CET-237 Soil Mechanics 3-0-3
A study of the basic principles and applications of soil mechanics as used in design and construction is covered. This course introduces knowledge of soil, its formation, actions, and uses. Included are studies of index properties, soil classification, exploration and sampling, compaction, and soil strength.

CET-239 Strength of Materials 2-2-3
Introduction to stress and deformation analysis of basic structural elements subjected to axial, torsional, bending, and pressure loads.
Prerequisite: MAT-140 or MAT-135

CET-243 Structural Design 4-0-3
This course is a study of the design of structural systems using wood, reinforced concrete, masonry, and steel. The design of various structural members and systems, such as tension members, beams, columns, connections, walls, and foundations is presented in accordance with relevant design codes.
Prerequisite: CET-239

CET-245 Civil Engineering CAD II 3-0-3
This course incorporates the features, commands, and techniques for managing files, creating consistent drawings, connecting to external databases, and customizing AutoCAD. This advanced-level course continues to build on the concepts of the CAD I. Hands-on exercises are used throughout the course to illustrate the concepts that are taught.
Prerequisite: CET-235

CET-246 Managing Civil Engineering Projects 3-0-3
This course presents an overview of the project management for Civil Engineering Technicians. Students need not have detailed knowledge about individual tasks or techniques for this course. Specific functions and techniques useful in the process of project management are covered. Techniques and requirements during project planning, including risk assessment, cost estimation, forecasting and economic evaluation are emphasized. It also addresses programming and financing issues, such as contracting and bidding for services, financing, organizing communication and insuring effective use of information. It further discusses techniques for control of time, cost, and quality during the construction phase. Project scheduling is introduced by using Microsoft Project.

CET-247 High Performing Buildings 2-0-2
This course will introduce the innovative technologies and energy-efficient methods used in modern buildings.

CET-248 Environmental Regulations 2-0-2
An overview of the history and current application of laws and rules used to protect the environment. Using a combination of specially designed case studies and projects, students will learn and practice how to apply environmental regulatory requirements.

CET-249 Surveying II 3-0-3
This course is designed to apply the skills learned in Surveying I to practical problems such as closed traverse, area calculations, land surveying, topographic mapping, stadia surveys, and difficult level circuits.
Prerequisite: CET-123

CET-250 Geographic Information Systems 3-0-3
This course is an introduction to Geographic Information Systems (GIS) and application to the field of Environmental. GIS consists of software tools that link places to various types of data. Data can consist of physical features, geology, hazards, studies, resources, and many other types of information. GIS can be used to build geographic/geologic databases, perform analyses, and create maps.
The course introduces the students to the principles of hydrostatics and hydrodynamics. Topics include fluid mechanics, pressure, flow, and energy considerations. In the expanded treatment of open channel flow, varied flow is presented, including backwater profiles and hydraulic jumps. Concepts of rainfall, runoff, and routing are covered.

CM-200 Analog and Wireless Communications Laboratory 0-2-1
A focus on experiments to reinforce the theory taught in CM-201 using state-of-the-art analog trainers.
Prerequisite: AC-120 or RET-112
Corequisites: CM-201; EC-220 or EC-220N

CM-201 Analog and Wireless Communications 3-0-3
A study of the principles of analog carrier systems used in broadcast and commercial communications. Amplitude modulation, frequency modulation techniques, TV broadcasting and closed-circuit systems, transmission lines, and antennas are introduced.
Prerequisite: AC-121 or RET-112
Corequisite: EC-221 or EC-221N

CM-205 LINUX Operating System 3-2-4
This course gives the student a solid foundation of the Linux Operating Systems. It begins by teaching students how to perform the installation of Linux in both a stand-alone and dual boot environment. Students work mainly in the command line environment to learn how to perform such tasks as, how to process text streams using filters, and the creation and management of user accounts and groups. This course provides a solid working knowledge of file systems related tasks, such as using the vi editor to create and edit files, navigating the file system tree, the creation and management of files and directories, the mounting and un-mounting of removable media such as USB drives, DVD drives and external drives, the managing of permissions and ownership of files and directories, the management of disk quotas as well as creation and managing new file systems.
Prerequisite: CMP-101

CPN-112 Networking Fundamentals 2-2-3
This course includes an analysis of technologies for connecting computers and computer-related devices into LANs. An overview of the following is provided: OSI modeling, network components, physical or wireless linking, network architecture, network operations, network administration and support, topologies, protocols, wide area networks (WANs) and solving network problems. Basic TCP/IP concepts are introduced.
Prerequisite: CMP-101

CPN-115 Introduction to Computer Logics 3-2-4
This course introduces binary, octal, and hexadecimal numbering systems, as well as circuits to perform arithmetic operations using these systems. Logic gates and combinational circuits are also introduced. Students in this course learn to work with encoders and decoders using ASCII, and Gray codes. In addition, the course moves beyond logic gates to cover the design and implementation of sequential circuits like Counters, Shift Registers, and Memories using flip-flops as the basic element in digital systems. The laboratory experiments enforce the theory discussed and covered during the lecture hours.
CPN-121 Desktop Environments 0-4-2
This course introduces students to the client operating systems in general, and especially those that are significant in computer software technology.
Prerequisite: CMP-101

CPN-209 Network Security Essentials 2-2-3
This course will develop students’ skills in securing data and information that passes through heterogeneous networks. Emphasis is placed on the tools and techniques that are necessary to safeguard businesses’ most significant assets. In the lab, students will learn how to identify risks and threats to organizational data.
Prerequisite: CPN-112

CPN-215 Ethics and Computer Forensics 2-2-3
In this course, students learn how to implement counter measurement procedures to protect networks against potential intruders. Students will use different utilities available for network security in the lab. Students will also explore the latest techniques in computer forensics.
Prerequisite: CPN-250

CPN-216 Network Defense and Countermeasures 2-2-3
This course is designed to introduce students to network security services, including network file systems, policy, encryption, key management, certificate management, IPSec, SSL, RAS, VPN and public server security, such as Internet Security and Acceleration Server. IDS and firewalls are also covered.
Prerequisite: CPN-250

CPN-223 Internetworking with CISCO Routers 2-2-3
This course prepares students to configure Cisco routers and switches with the Cisco IOS for both LANs and WANs. Students will learn IP routing concepts such as static and dynamic routes. Routing protocols as well as VLAN, Frame relay, ISDN, and Access Control Lists are discussed.
Prerequisite: CPN-112

CPN-228 Installing, Configuring and Administering SQL Servers 2-2-3
This course is designed to give students an applied, practical introduction to database administration. Students will gain an understanding of the functioning of a database management system and its relationship to the computer network environment in which it operates. Students will learn the concepts, principles, and techniques necessary to carry out such functions as database object creation, storage management and capacity planning, performance tuning, backup and recovery, and security management.
Prerequisite: CPN-112

CPN-231 PC Hardware Technology 2-2-3
This course discusses the design and operation of all hardware components that allow a personal computer to operate efficiently. Topics covered include motherboard architecture with an emphasis on the chipset and CPU, expansion boards, drives (PATA, SATA, SSD, and optical), power supplies, PC protective devices, and peripheral devices. Hands-on activities, such as disassembly and reassembly of a computer system, troubleshooting using PC diagnostic cards and PC troubleshooting software, are an integral part of this one-semester course.
Note: Students taking and passing the A+ examination before administration of the class final examination will receive an A for the course and will not have to take the class final. The student must attend the remaining classes.

CPN-232 Introduction to PC Operating Systems 2-2-3
This course is an introduction to computer operating systems, including Disk Operating Systems (DOS) and Windows operating systems. Students will perform detailed hands-on experiments to reinforce the theory and concepts learned. Following successful course completion, the student will have reviewed the material that appears in the Software section of the A+ Certification Exam. Note: Students taking and passing the A+ examination before administration of the class final examination will receive an A for the course and will not have to take the class final. The student must attend the remaining classes.
Prerequisite: CMP-101
CPN-240  Supporting Network Clients Operating Systems  2-2-3
This course introduces students to the installation and configuration of Network Client Operating Systems. In addition, students will carry out several tasks commonly used to provide administration and help support.  
Prerequisite: CMP-101

CPN-250  Network Servers and Services Administration  2-2-3
Students in this course are exposed to Management Console utilities which are primary network administrator tools, and the Remote Desktop utility to manage and troubleshoot remote computers in a network. This course teaches students, through lectures, demonstration, Instructor’s exercises and Labs, the skills and knowledge necessary to plan the deployment of Application Servers, File and Print Services, Network Storage, Volumes and File Systems, Physical Security, Backing Up and Restoring a Server, as well as Authentication and NTFS permissions. 
Prerequisite: CPN-112

CPN-251  Computer Networks Infrastructure Design and Implementation  2-2-3
In this course the student goes through the design, installation, configuration, and management of a Network Infrastructure using Network Operating Systems. Students obtain a working knowledge of the basic concepts encountered in installing, configuring, and troubleshooting services, such as DHCP, DNS, WINS, RRAS, NAT, IpSec, and the use of utilities like Network Monitor. The theory of all classes of IP Networks that include IPv4.0 and IPv6.0 as well as Subnetting and Supernetting is extensively covered in this course. Laboratory experiments in every class reinforce the theory discussed and covered during the lecture.  
Prerequisite: CPN-112

CPN-254  Directory Services Design and Administration  2-2-3
This course prepares students to create and manage a Client-Server network. Students will gain a thorough understanding of various important concepts, such as building a domain, creating replicas, and building child domains or subdomains. Additional concepts discussed are FSMO Roles, Functional Levels of Domains and Forests, Home Folders, Folder Redirection and Remote Server Administration. Group Policies are extensively covered, as they are effective ways to control and manage network domains. In addition, this course covers the concept of sites and the replication of data among them in large networks.  
Prerequisite: CPN-112

CPN-299  Enterprise Administration  2-2-3
This course focuses on the latest Windows Server enterprise administration. Topics include planning network and application services, designing access management components, software deployment and updates, structuring domains and forests, designing security and high availability, server and application virtualization.  
Prerequisite: CPN-250

CPT-101  Computer Architecture Fundamentals  3-2-4
Analysis and design of basic electrical circuits, combinational and sequential logic circuits, number systems, codes, Boolean algebra techniques, code converters, flip-flops, counters, shift registers and memory through theoretical and laboratory approaches.  
Corequisites: CMP-101; MAT-120 or MAT-115

CPT-211  Digital Circuits and Systems  4-0-4
This is a basic course in the analysis and application of digital circuits. Students are introduced to the characteristics of basic digital gates. Combinatorial and sequential circuits are studied and used to construct digital systems. Computer circuits such as RAM and ROM are included. Programmable Logic Devices (PLDs) are introduced.  
Prerequisite: EET-104  
(This course is equivalent to CET-211)
CPT-213 Microcontrollers 3-0-3
This course is an introduction to the study of embedded microprocessor systems. The M68HC12 microcontroller is currently utilized as the basis for process control systems. Its internal block diagram is discussed from an operational viewpoint. Addressing modes, interrupt routines, A/D converter initialization and operation, and subroutines are studied among other topics. Assembly language programming is used to affect all control algorithms.
Prerequisites: CPT-211 or CST-204
Corequisite: CPT-223
(This course is equivalent to CET-213)

CPT-221 Digital Laboratory 0-3-1
Standard laboratory equipment is used to verify the characteristics of selected digital circuits. Implementation of these circuits using Integrated Circuits (ICs) and Programmable Logic Devices (PLDs) are discussed.
Prerequisite: EET-103
Corequisite: CPT-211
(This course is equivalent to CET-221)

CPT-223 Microcontrollers Laboratory 0-3-1
This course is an introduction to establishing and testing embedded microprocessor systems. The M68HC12 is used to give students hands-on experience in designing, assembling and running a digital control system using a microcontroller. Much of the material covered in CPT-213 is demonstrated and utilized.
Corequisite: CPT-213
(This course is equivalent to CET-223)

CPT-231 Visual Programming 0-3-1
This course is an introduction to Visual Programming. The course includes creating a Graphical User Interface (GUI), writing event procedures, developing subprograms and functions, and using loops and conditional blocks. Different modes of inputting data, string manipulation and formatting output are included. Visual Basic is currently used as the programming language for carrying out these functions.
Prerequisite: CMP-101
(This course is equivalent to CET-231)

CPT-233 Local Area Networks 2-3-3
This course is an introduction to the engineering and administration of local area networks. Network topologies, protocols and architectures, cabling, NICs, bridges, routers and gateways are discussed. A laboratory sections includes the use of a currently popular operating system (e.g., Windows 2003), router implementation, Netware and use of the TCP/IP protocol suite.
Prerequisite: CMP-101
(This course is equivalent to CET-233)

CPT-235 Introduction to Programming 0-3-1
This course is a study of programming languages used to solve scientific problems. Students are introduced to the basics of programming using flow charts, top-down (traditional) concepts loops and decision structures. C++ programming is used to find solutions to selected problems.
Prerequisite: CMP-101

CST-102 Programming Concepts 3-0-3
An introduction to basic programming concepts including Low Level, High Level and Assembly languages, algorithms, control structures (e.g., sequential, loops, and conditional) and vocabulary. The emphasis is on structured design and top/down procedural problem solving. Program constructs are introduced to demonstrate independence of any specific programming language.

CST-103 Introduction to Programming With C++ 2-2-3
The programming concepts introduced in CST-102 are implemented using the classical form of C++. The structure of a C++ program is explained and data types are described. The proper syntax for arithmetic expressions, condition specifications, loops, conditional structures, arrays and user-defined functions are discussed. Basic file transfer techniques are included.
Prerequisites: CMP-101 and CST-102
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST-104</td>
<td>Introduction to Databases Using Access &amp; SQL</td>
<td>2-2-3</td>
<td>Prerequisite: CMP-101</td>
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<tr>
<td></td>
<td>The fundamentals of a database design are covered using Microsoft Access. These include: file organization and access methods; relational, network, and hierarchical views of databases; use of appropriate query languages and implementations; parsing; and optimization of queries. Reliability, security, and integrity of databases with techniques of data compression and encryption are also included.</td>
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<tr>
<td>CST-202</td>
<td>Introduction to JAVA</td>
<td>2-2-3</td>
<td>Prerequisites: CMP-101 and CST-102</td>
</tr>
<tr>
<td></td>
<td>Introduction to the JAVA language with emphasis on design and implementation of Internet and intranet websites and problem solving skills. Projects, applications, applets, commands, operating system strings, storage structures and virtual interfaces are also covered.</td>
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<tr>
<td>CST-203</td>
<td>Introduction to Visual Programming</td>
<td>2-2-3</td>
<td>Prerequisites: CMP-101 and CST-102</td>
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<tr>
<td></td>
<td>An introductory course to visual programming. Topics include the creation of a Graphical User Interface, writing event procedures, and manipulating data. Different modes of inputting data, string manipulation and formatting output are included.</td>
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<tr>
<td>CST-204</td>
<td>Computer Architecture</td>
<td>3-0-3</td>
<td>Prerequisite: CST-104</td>
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<td></td>
<td>Introduction to various computer architectures that have been used in popular operating systems. File and memory management techniques, input/output methods, security, compilers and CPU structure are discussed.</td>
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<tr>
<td>CST-205</td>
<td>OOP Using C++</td>
<td>2-2-3</td>
<td>Prerequisites: CMP-101 and CST-103</td>
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<td>The study of the C++ programming language in the OOP (Object Oriented Programming) mode. Study begins with the use of ADT’s (Abstract Data Types) in the procedural mode to prepare students for the more advanced OOP concepts such as classes, objects, methods and properties. The meanings of public and private classes, inheritance and polymorphism are also reviewed. Programs are written in the OOP mode using constructors and destructors.</td>
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<tr>
<td>CST-206</td>
<td>Advanced Database (Oracle) with SQL</td>
<td>2-2-3</td>
<td>Prerequisite: CST-104</td>
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<td>This course provides students with an understanding of relational database management systems. Students write SQL (Structured Query Language) files to generate output reports and create and maintain database objects such as tables and views. SQL is also used to store, retrieve and manipulate data. Lectures are reinforced with hands on practice using the Oracle 10i database.</td>
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<tr>
<td>CST-207</td>
<td>JAVA II</td>
<td>2-2-3</td>
<td>Prerequisite: CST-202</td>
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<td></td>
<td>An introduction to software development using JAVA Object Oriented Programming (OOP). Graphics, creating a user interface, exception handling, applets, and advanced Graphic User Interface (GUI) are among the topics covered.</td>
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<tr>
<td>CST-209</td>
<td>Advanced Visual Programming</td>
<td>3-0-3</td>
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<td>Further development of concepts in visual programming with emphasis on creating applications using the visual programming environment. A simple word processor, spreadsheet and other instructor controlled applications will be generated by the students.</td>
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<tr>
<td>CST-240</td>
<td>Web Programming with XHTML and JAVA Script</td>
<td>3-0-3</td>
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<td></td>
<td>The use of XHTML and JAVA Script to create interactive, client-side web pages. The instructor may change the specific languages depending on the latest developments in web programming.</td>
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<tr>
<td>DC-110</td>
<td>DC Circuits Laboratory (For Continuing Students)</td>
<td>0-4-2</td>
<td>Corequisite: DC-112</td>
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<tr>
<td></td>
<td>Construction and testing of DC circuits. Experiments based on material in DC-112. Student operates analog and digital test equipment such as oscilloscope, voltmeter, multimeter, and signal generator. Students who successfully complete DC-110 may not enroll in DC-113.</td>
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<tr>
<td>DC-112</td>
<td>DC Circuits Laboratory</td>
<td>0-4-2</td>
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<tr>
<td></td>
<td>Construction and testing of DC circuits. Experiments based on material in DC-112. Student operates analog and digital test equipment such as oscilloscope, voltmeter, multimeter, and signal generator. Students who successfully complete DC-110 may not enroll in DC-113.</td>
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</table>

ACADEMIC PROGRAMS
DC-112  DC Circuits  (For Continuing Students)  4-0-4
An introduction to the principles of DC electricity. Ohm’s Law, Kirchhoff’s Law, analysis of series, parallel, and series-parallel circuits. Mesh and node analysis, superposition, Thevenin’s, Norton’s and maximum power transfer theorems are studied. Students who successfully complete DC-1120 may not enroll in DC-115.
Corequisite: MAT-120 or MAT-115

DC-113  DC Circuits Laboratory  (For New Students Only)  0-4-2
Construction and testing of DC circuits. Experiments based on material in DC-115. Student operates analog and digital test equipment such as oscilloscope, voltmeter, multimeter, and signal generator. Students who successfully complete DC-113 may not enroll in DC-110.
Corequisite: DC-115

DC-115  DC Circuits  (For New Students Only)  4-0-4
An introduction to the principles of DC electricity. Ohm’s Law, Kirchhoff’s Law, analysis of series, parallel, and series-parallel circuits. Mesh and node analysis, superposition, Thevenin’s, Norton’s and maximum power transfer theorems are studied. Students who successfully complete DC-115 may not enroll in DC-112.

DCM-203  Data Communications  2-2-3
Data Communication is focused on the transfer of information or data between a source and a receiver. It deals with the method of transfer, its rate of transfer, and the preservation of data integrity during the process, together with circuitry and equipment germane for the transfer. Voice over IP, Fiber Optic systems, and Cable TV Systems are covered in detail.
Prerequisite: DIL-122 or CPN-115
Corequisite: DR-222 (for IETC students only)

DIL-122  Digital Logic  3-2-4
Analysis and design of combinatorial and sequential logic circuits; number systems; codes; Boolean Algebra and Karnaugh Map techniques; code converters; flip-flops, counters and shift registers are analyzed and designed. Labs germaine to augment theoretical understanding will be performed by students.
Prerequisite: MAT-120 or MAT-115
(DIL-122 is equivalent to DR-122 for returning students)

DR-220  Digital Systems Laboratory  0-3-1
A focus on experiments on logic gates, flip-flops, counters, decoders, multiplexers, shift registers, memory devices and the design, construction and test of digital systems projects as specified by the instructor.
Prerequisite: AC-120
Corequisite: DR-222

DR-222  Digital Systems  3-0-3
The use of medium-scale and large-scale integration (MSI and LSI) in digital systems. Counters, data selectors and decoders, multiplexers and demultiplexers, memory, shift registers and their applications are covered in detail, including applications. The various subsystems of the digital computer such as semiconductor memory devices and CPU are studied.
Prerequisite: DIL-122

DS-201  Closed Circuit Television (CCTV)  3-2-4
This course covers the fundamental theory and practice of closed circuit television components. It covers basic measurement units, light and television, optics and general characteristic of TV systems, cameras, video processing equipment, video recorders, monitors and the latest equipment found in the CCTV industry.
Corequisite: AC-120

DS-202  Network and Wireless Security  3-2-4
This course introduces networking concepts and covers the security involved in wireless networks for the most popular operating systems. It reviews the security approaches for the different wireless standards currently competing in the networking market.
Corequisite: CMP-101
DS-213  Introduction to Security and Safety Codes  3-0-3
An in-depth historical and philosophical perspective of private and industrial security. Students will understand the present stage of private and industrial security, its principles, its legal authority and its effect on society.

DS-221  Industrial Electronic Sensor and Biometrics Technology  2-2-3
This course will provide a focus on industrial electronic sensors and biometrics as used in security technologies. Typical biometric systems used in this course include fingerprint identification and facial recognition. Other pattern recognition systems that determine the authenticity of a person based on physiological or behavioral characteristics are also discussed. **Prerequisite:** EC-220N

DS-231  Electronic Security Systems 2-2-3
This course provides essential information needed for the selection, purchase, installation and maintenance of common security systems. It raises the level of awareness of thought, time and effort that are placed into security system specification and design. The course integrates the fire safety system as well. Students will learn to troubleshoot electronic systems. **Prerequisite:** EC-221N

DS-241  Surveillance Systems Design and Layout  1-3-2
This course introduces students to the design and implementation of CCTV and sophisticated surveillance systems by using the latest computer-aided design software. **Prerequisites:** CMP-101 and DS-201

DS-290  Security Systems Integration Project  2-2-3
Students will integrate a burglar alarm system with a fire alarm system and CCTV. This course is a capstone course in the Electronic Security Systems program. Students will be assigned projects that involve the techniques they learned in previous courses. **Prerequisite:** DS-201

EC-220N  Semiconductors Laboratory  0-2-1
A focus on experiments performed to verify the theory and concepts taught in EC-221N. **Prerequisite:** AC-120 or RET-112 **Corequisite:** EC-221N

EC-221N  Semiconductors and Electronic Circuits  3-0-3
The principles of Diodes, BJT’s and FET’s are introduced in this class. DC bias, voltage and power gains are discussed. Rectifiers, amplifiers, regulators, operational amplifiers, and integrated circuits are also analyzed. **Prerequisite:** AC-121 or RET-121

EET-102  Electronics I  4-0-4
This course is an introduction to the theory of semiconductor circuit operations. PN junction applications such as BJTs, JFETs and MOSFETs are discussed. Biasing techniques and frequency analysis of amplifiers are studied. **Prerequisite:** EET-104

EET-103  Circuit Analysis I Laboratory  0-3-1
This course introduces the use of basic electronic laboratory equipment in performing electronic measurements. Students get hands-on experience in the use of multi-meters, analog meters, signal generators and oscilloscopes to measure applicable electrical parameters. Selected concepts learned in EET-101 are verified using the appropriate equipment. **Corequisite:** EET-104

EET-104  Circuit Analysis I  5-0-5
The theory of sinusoidal and DC circuit analysis is introduced in this course. The student is first exposed to the concepts of charge, current and voltage. Formal analysis continues with the study of Ohm’s Law, Kirchhoff’s Laws, and network theorems. The study of sinusoidal waveforms in the steady state is accomplished using phasor analysis. Resonance, magnetic coupling, power and some transient analysis is included. DC circuits are treated as a special case of AC. **Corequisite:** MAT-140 or MAT-135
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>EET-112</td>
<td>Electronics I Laboratory</td>
<td>0-3-1</td>
<td>Prerequisite: EET-103</td>
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<td></td>
<td>Measurement of selected semiconductor circuit</td>
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<td>Corequisite: EET-102</td>
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<td>characteristics including diode circuits, power</td>
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<td>supplies, BJT, JFET and MOSFET amplifiers</td>
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<td>are introduced. Gains, frequency characteristics,</td>
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<td>loading effects and biasing techniques are</td>
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<td>determined and verified using standard</td>
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<td>laboratory equipment.</td>
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<td>EET-120</td>
<td>Circuit Analysis II Laboratory</td>
<td>0-3-1</td>
<td>Prerequisite: EET-103</td>
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<td>Students continue to use the basic electronic</td>
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<td>Corequisite: EET-121</td>
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<td>lab equipment to perform common measurements</td>
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<td>in AC. Most of the course is utilized to verify</td>
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<td>the results of more advanced analysis</td>
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<td>techniques. In addition, the use of RLC circuits</td>
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<td>as narrow bandpass filters is tested and the</td>
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<td>transient characteristics of RL and RC circuits</td>
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<td>are verified.</td>
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<td>EET-121</td>
<td>Circuit Analysis II</td>
<td>4-0-4</td>
<td>Prerequisite: EET-104</td>
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<td>The theory of AC circuit analysis is studied in</td>
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<td>Corequisite: EET-120</td>
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<td></td>
<td>this course. Analysis of circuits and networks</td>
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<td>is covered using the basic techniques of Circuit</td>
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<td>Analysis I with complex numbers and</td>
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<td>Resonance in RLC circuits. Power and energy</td>
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<td>concepts are expanded to include power</td>
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<td>distribution considerations.</td>
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<tr>
<td>EET-212</td>
<td>Introduction to Telecommunications</td>
<td>3-3-4</td>
<td>Prerequisite: EET-111</td>
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<td>This course introduces the student to the</td>
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<td>Corequisite: EET-211</td>
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<td></td>
<td>principles of wireless analog and digital</td>
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<td>telecommunication. AM and FM receivers are</td>
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<td>studied with emphasis on the modulation</td>
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<td></td>
<td>process. Basic modem modulation methods and</td>
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<td>cellular radio are also reviewed. Transmission</td>
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<td>lines, radio propagation and antennas are also</td>
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<td>covered.</td>
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<tr>
<td>EET-221</td>
<td>Project Laboratory</td>
<td>0-3-1</td>
<td>Prerequisite: CMP-101</td>
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<td></td>
<td>This course is an introduction to electronic</td>
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<td>Corequisite: CPT-211</td>
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<tr>
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<td>printed circuit board design and construction.</td>
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<td>Computer-aided software is used to design and</td>
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<td>lay out electronic printed circuit boards. Each</td>
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<td>student selects an individual project to design.</td>
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<td>These designs are used to fabricate the printed</td>
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<td>circuit boards. Students then do the</td>
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<td>photography, photo-resist hardening, etching,</td>
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<td>drilling, stripping and component mounting and</td>
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<td>soldering.</td>
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<td>EET-245</td>
<td>Control Systems</td>
<td>2-3-3</td>
<td>Prerequisite: EET-102</td>
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<td>This course is an introduction to feed-back</td>
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<td>Corequisite: EET-211</td>
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<td>control systems. The course includes</td>
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<td>mathematical derivation of equations which</td>
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<td>describe the behavior of systems. This course</td>
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<td>also includes explanations of systems behavior.</td>
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<td>EET-246</td>
<td>Electrical Machinery</td>
<td>2-3-3</td>
<td>Prerequisite: EET-120</td>
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<td>This course covers the generation and use of</td>
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<td>Corequisite: PHY-201</td>
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<td>electrical power primarily in the area of</td>
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<td>electrical machinery. DC, single-phase and</td>
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<td>multi-phase machines are investigated. Three-</td>
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<td>phase power in conjunction with three-phase</td>
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<td>loads including transformers are analyzed. The</td>
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<td>attainment of torque-speed curves for motors</td>
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<td>and voltage-speed curves for generators is</td>
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<td>included.</td>
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143
EET-248  Embedded Systems  2-2-3
This course introduces students to computer languages used to program microprocessors, as well as programming languages used to program microcomputers. The course starts with the basics of programming a single 8-bit processor, it advances to embedded systems where processors become the “heart” of electronic controlled circuits, and ends at an advanced level where computers using 32 or 64-bit processors are programmed to control real life applications. The following computer programming languages are used in this course: PicBasic, C, and Python. This course also introduces the use of microcomputers, such as the Raspberry Pi, and their applications to control electronic systems.

Prerequisites:  CPT-211, CPT-221, CPT-235

ESS-242  Electronic Security Systems  2-2-3
Electronic Security Systems provide thorough, comprehensive and practical coverage of Operational Amplifiers, and their application. The coverage begins with basic OP-Amp circuits, frequency response, comparators, summing amplifiers, integrator, differentiator and active filters, signal generators, power supply circuits and special amplifiers, including instrumentation amplifiers. Sensors, alarms, and home automation systems are covered in detail.

Prerequisites:  ECS-220 and ECS-221 or SEC-200 and SEC-201

ETC-242  Embedded Systems Programming  2-2-3
This course introduces students to computer languages used to program microprocessors, as well as programming languages used to program computers. This course starts with the basics of programming a single 8-bit processor, it advances to embedded systems where processors become the “heart” of electronic control circuits, and ends at an advanced level where computers using 32 or 64-bit processors are programmed to control real life applications.

Prerequisites:  EC-221, DR-222
Corequisite:  OP-241

IND-205  Independent Study  Variable
Independent study option available to students who wish to examine a subject in depth. Guided studies are designed and pursued by students under the tutelage of a faculty member. Option is restricted to students in third or higher term. Permission of the Dean or department chair is required. Credit hours will be determined by the Dean or department chair.
MAJ-142 Introduction to the Major: Computer Software Technology 1-0-1
This overview of Computer Software Technology will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-143 Introduction to the Major: Civil and Environmental Technology 1-0-1
This overview of Civil and Environmental Technology will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-145 Introduction to the Major: Robotics and Automation Technology 1-0-1
The overview of Robotics and Automation Technology will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-149 Introduction to the Major: IETC-NET 1-0-1
This overview of Industrial Electronics Technology - Computer Technology Track and Networking Technology will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-152 Introduction to the Major: FMT and HVAC/R 1-0-1
This course introduces students to the college environment and to their chosen major. Information will be given about TCI’s services and opportunities, and about the attitudes and practices needed for effective learning. Overviews of both FMT and HVAC/R Majors will be presented; students will explore these majors as both academic disciplines and career fields, exploring their beginnings and development over time, their conceptual assumptions, and their culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field. Course work will be enhanced with field trips, attendance of trade shows (ABCO, GreenBuildingsNYC, Cooperators and Condo Expo) or guest lecturers.

MAT-115 Algebra and Trigonometry I 6-0-3
The course content is the same as MAT-120 but offers additional contact hours.

MAT-120 Algebra and Trigonometry I 3-0-3
An introduction to College Algebra using first and second-degree equations, beginning with algebraic expressions, linear equations, graphing and determinants with systems of equations, including the quadratic equation. Trigonometry is then introduced with the concepts of angles, radian measurement, trigonometric functions and the laws of sines and cosines, as used with right and oblique triangles.
MAT-130  Algebra and Trigonometry II  3-0-3
A follow-up course to Algebra and Trigonometry I with a continuation on vectors and complex numbers, graphing trigonometric functions, and its formulas and identities. The course then proceeds to exponential, radical and logarithmic functions, continuing on to sequences and series until finally ending with conic shapes and analytic geometry. 
**Prerequisite:** MAT-120 or MAT-115

MAT-135  College Algebra and Trigonometry  6-0-4
The course content is the same as MAT-140 but offers additional contact hours.

MAT-140  College Algebra and Trigonometry  4-0-4
An introduction to basic scientific mathematical techniques. Study focuses on the basic concepts of college algebra and trigonometry, especially in their applications to science and technology. Complex numbers and logarithms are covered and Boolean algebra is introduced.

MAT-210  Analytical Geometry and Calculus  4-0-4
An introduction to calculus. Study focuses on the basic concepts of analytic geometry and calculus. Differential and integral calculus are covered with their applications to science and technology. 
**Prerequisite:** MAT-140 or MAT-135

MAT-212  Statistics  3-0-3
An introduction to the elements of statistical mathematics. Basic topics include measurement of central tendency, calculation of mean, median and mode parameters, measurement of variations using Chebychev’s Theorem and measurement of positions. Pie chart, bar charts and pareto charts are used to graphically represent statistical variations. Binomial and normal distributions are studied as well as an introduction to probability theory.

MOT-200  Management of Technology  3-0-3
The study of the basic principles and techniques related to controlling resources (i.e., people, materials, equipment, contractors, and cash flow) to complete a technology project on time and within budget while meeting the stated technical requirements. The course also covers an organization’s expectations, professionalism, and ethics.
**Prerequisites:** CMP-101 and ENG-101

PET-244  Power Electronics Technology  2-2-3
This course is an applications-oriented introduction that offers an easy-to-understand explanation of the principles of power electronics, with complete coverage on the switching, control, and conversion of electrical power using semiconductor devices. Reflecting the increasing demand for efficient conversion and control of electrical power, it will consider the latest power devices, circuits, and control schemes that continue to extend power electronics technology to new applications areas.
**Prerequisites:** SEC-200, SEC-201, DR-220, DR-222

PHY-101  Introductory Physics  3-0-3
This course is an algebra-based examination of the standard topics in classical physics. Students investigate the theory of motion, the laws of conservation of energy, thermodynamics, electricity and magnetism.
**Corequisite:** MAT-120 or MAT-115

PHY-102  Physics I  3-2-4
This course is an introduction to classical mechanics. Space and time, straight-line kinematics, motion in a plane, forces and equilibrium, Newton’s laws, particle dynamics, universal gravitation and conservation laws are discussed. This course includes a laboratory component in which students perform selected experiments related to their theoretical studies. 
**Prerequisite:** MAT-140 or MAT-135
PHY-201 Physics II
Students cover concepts in sound, heat, electric charges, electrostatics and the atomic structure of matter. The electric field, potential electrostatic energy, magnetic fields, electromagnetic waves and Maxwell’s equations are discussed. This course includes a laboratory component in which students perform selected experiments related to their theoretical studies.
Prerequisite: PHY-102

RES-101 Railway System Fundamentals
This course discusses the foundations of railway history, operations, structures and maintenance. It is an introduction to all major subsystems used by railways for operations and maintenance. Regulatory bodies that govern railway design, construction and operation are also introduced.

RES-124 Tools and Measurement Techniques
This course is designed to prepare students to gain skills such as reading blueprints, wiring, using and calibrating test equipment, and identifying tools used in the rail industry. Activities and measures taken to improve safety are also covered.

RES-220 Introduction to Railway Signaling
This course is a study of railway signaling and automatic train control systems. Basic configurations, design principles and safety practices are presented. The evolution of railway signaling and automatic train control systems are presented.
Prerequisite: RES-101
Corequisite: RET-121

RES-221 Railway Communications and Automatic Fare Collection Systems
This course presents the various types of communication systems used by railroads, including CCTV, telephone, public address, trunk radio, and message boards. Automatic fare collection systems for light rail, heavy rail and commuter rail systems are also covered.
Corequisites: CM-200 and CM-201

RES-222 Rail Vehicle Electrical and Electronic Systems
This course provides a study of the various types of rail vehicles, including locomotives, heavy rail vehicles, light rail vehicles, and coaches. Various electrical and electronic systems for each type of vehicle are studied.
Prerequisite: RES-101
Corequisite: RET-121

RES-223 Railway Traction Electrification Systems
This course covers traction electrification systems for light rail, heavy rail, commuter rail and freight railways. Such systems include third rail power, overhead contact lines (catenary), vehicle power collection and the power distribution network.
Prerequisite: RES-101
Corequisite: RET-121

RES-225 Special Topics for Railways
This course is designed to help the student to become familiarized with special equipment and instruments such as AC & DC motors, generators, starters, Solenoids, Relays, microswitches, thyristors, and transformers. Identifying the function of each component/instrument and how to use them in a circuit are also covered. Building and troubleshooting circuits such as railway vehicle lights and door circuits are introduced in this course. Students will be assigned a project at the beginning of the semester to design and build an electrical circuit with the aid of wiring and schematic drawings.
Prerequisites: EC-220N, EC-221N and RES-124

RET-112 Mechatronics I
This course is an introduction to direct current, alternating current, electronics, and classical mechanics. Students will apply Ohm’s Law and Kirchhoff’s Law to determine and measure voltage and current in simple circuits. Mechanical topics such as motion in one dimension, Newton’s “Laws of Motion”, and conservation of energy will be covered.
Corequisite: MAT-120 or MAT-115
### RET-121 Mechatronics II 3-2-4
This course will focus on digital electronics, servo mechanisms and electro mechanical systems. Motion in three dimension, statics, momentum, simple mechanical machines and components, and integration of electrical and mechanical systems will be covered.
**Prerequisite:** RET-112

### RET-211 Renewable Energy Technologies I 2-2-3
This course provides students an overview of the photovoltaic (PV) industry, including fundamentals, components, system types, and the business and future of the industry.
**Prerequisites:** DC-112 or DC-115 and AC-121
**Corequisite:** SEC-201

### RET-212 Renewable Energy Technologies II 2-2-3
This course provides students an overview of electrical, and structural, specifications and calculations for solar systems using up-to-date software tools. Grid tie and off grid systems with all their components, such as inverters, batteries, charge controllers, cables, and mounting hardware will be covered. Students will be exposed to all current regulations for permits, installation, and inspection of a solar power system.
**Prerequisite:** RET-211

### RNA-101 Fundamentals of Robotics Engineering Technology 2-2-3
Students will be introduced to the basics of programming through ALICE or SCRATCH. In addition, an NXT Mindstorm Robot, which has four inputs and three control outputs using the NXT Modular Programming blocks, will also be introduced.

### RNA-114 Solid Modeling 0-3-3
Pro/ENGINEER or SolidWorks or AutoCAD software will be used to teach solid modeling. This software will allow the student to design parts, assemblies, photo realistic rendering, and animate a system.
**Corequisite:** RNA-111

### RNA-115 Programming Robots I 3-2-4
ROBOT C programming language will be used to control the NXT Mindstorm and TETRIX robots. This course will also teach PID Control and programming encoded motors.
**Prerequisite:** RNA-101
**Corequisite:** RNA-111

### RNA-211 Mechatronics II 3-2-4
Digital electronic circuits, servo mechanisms and motors will be controlled using the ARDUINO microcontroller. Programming the controller in C will be undertaken to control various circuits and systems.
**Prerequisite:** MAT-130 and RNA-111

### RNA-215 Programming Robots II 3-2-4
Students will learn to control a VEX robot using ROBOTC programming language. VEX robots can be built to replicate many industrial configurations and programmed for specific tasks. The physical robot is made from VEX components of the student’s choosing. Students will also learn useful and practical techniques in ROBOT C programming.
**Prerequisite:** RNA-101
**Corequisite:** RNA-211

### RNA-217 Robotic Control Systems 2-2-3
Introduction to feedback control. Op-Amp will be used to teach the theory of feedback control systems. Differentiators, Integrators, Comparators and Feedback Control circuits will be built using OpAmphs.
**Corequisites:** RNA-211 and RNA-215

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**ACADEMIC PROGRAMS**
RNA-222  Robotics Project  4-0-4
*Capstone Project*
This course integrates the knowledge and skills acquired by students in all core courses in the program. Information will be given about Robot Platforms Construction, Computers and Electronics Control, Motors, Locomotion, Sensors, and Navigation. Students will be assigned or asked to select projects that involve the techniques they learned in previous courses. There will be hand-on applications to provide experiences with the specific skills and methods which are used in the field.

**Prerequisites:** RNA-215 and RNA-240

RNA-234  Special Topics in Robotics  4-0-4
Programming an Industrial Robotic Arm or any currently important robotic or automation technology will be undertaken.

**Corequisites:** RNA-215 and RNA-240

RNA-240  Introduction to Autonomous Systems  3-2-4
Students will learn to program the PIC 16F84 microcontroller. Once the PIC is programmed, we will program a minicomputer, and interconnect the microcontroller with the minicomputer to form an autonomous system.

**Corequisite:** RNA-215

SEC-200  Semiconductors and Electronic Circuits Lab  0-3-1
This Lab course focuses on experiments performed to verify the theory and concepts taught in SEC-201.

**Prerequisites:** DC-110 or DC-113 and AC-120

**Corequisite:** SEC-201

SEC-201  Semiconductors and Electronic Circuits  3-0-3
This course includes topics that cover diodes, bipolar junction transistors (BJTs), and field effect transistors (FETs), as well as amplifiers. The course starts with some topics that introduce these devices and their biasing types followed by topics about using these devices in discrete amplifiers and other applications such as electronic switches.

**Prerequisites:** DC-112 or DC-115 and AC-121

ST-221  Satellite Communications  3-2-4
An analysis of satellite transmission as applied to communications. The student will study the history of satellites, their orbits, and typical satellite and earth station systems. The satellite industry as a whole is reviewed and basic applications are identified. This course also covers cables, master antenna TV systems, and the use of signal level meters.

**Prerequisite:** AC-120
FACILITIES MANAGEMENT TECHNOLOGY (FMT) – A.O.S. DEGREE

Chairperson – Clarel Mortimer
M.S.E.E., B.S.E.E., Polytechnic University
Room 200, Extension 5710

This program offers studies in all aspects of the maintenance of residential and commercial buildings. With hands-on laboratory studies in heating, ventilation, air conditioning, refrigeration, plumbing, electricity, major appliances and carpentry, the graduate can work as a building maintenance mechanic. With extensive lecture materials on building systems, codes, health and safety, tenant relations, and staff management, the graduate can also obtain a superintendent position in building and facilities management. A computer course enhances the skills learned in the program.

PROGRAM GOALS AND OBJECTIVES

Definition of Facilities Management according to the International Facilities Management Association:

Facility Management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology.

Goals of the Program:

• To provide students with the technical and managerial skills necessary for employment as facility managers.
• To provide entry-level facility managers to fill the need for all types of facilities and organizations.
• To provide students with the tools to continue their education as professional facility managers.

Objectives of the Program:

• Graduates will be knowledgeable of the human and environmental factors in facility management to include: building life cycles, energy management, sustainability and occupancy.
• Graduates will become knowledgeable of a variety of personnel and financial management paradigms that are both ethical and legally binding.
• As facility managers, graduates will be able to employ best practices for strategic and fiscal planning to include: estimating, budgeting, construction and project management.
• Graduates will be knowledgeable in current technology, and research in facility management.
• Graduates will be knowledgeable about the operation and maintenance of various building systems in commercial and residential buildings.
• To provide the students with a solid base in the IFMA standards of excellence in:
  • Leadership and Management (Professional Practice)
  • Operation and Maintenance
  • Planning and Project Management
  • Communication
  • Finance
  • Human and Environmental Factors
  • Quality Assessment and Innovation (Research and Analytical Methods)
  • Real Estate
  • Technology

Course Requirements for the Associate in Occupational Studies (A.O.S.) degree in Facilities Management Technology (HEGIS #5317). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
# FACILITIES MANAGEMENT TECHNOLOGY (FMT)

## First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BPL-101</td>
<td>Building and Plumbing Repair Laboratory</td>
<td>2</td>
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<tr>
<td>BPP-101</td>
<td>Building / Housing Physical Plant / Service Equipment</td>
<td>4</td>
</tr>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-152</td>
<td>Introduction to the Major: FMT and HVAC</td>
<td>1</td>
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<tr>
<td>MAT-120</td>
<td>Algebra and Trigonometry I</td>
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## Second Semester

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<th>Title</th>
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<tbody>
<tr>
<td>ACL-101</td>
<td>Air Conditioning and Refrigeration Laboratory</td>
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<tr>
<td>ACS-101</td>
<td>Survey of Air Conditioning Systems</td>
<td>4</td>
</tr>
<tr>
<td>BES-102</td>
<td>Commercial Building Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>BHP-102</td>
<td>Heating Principles</td>
<td>4</td>
</tr>
<tr>
<td>BPC-102</td>
<td>Computer Graphics and Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
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## Third Semester

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<td>ASE-###</td>
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<td>(Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
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<tr>
<td>BAS-201</td>
<td>Building Automation Systems</td>
<td>1</td>
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<tr>
<td>BMP-201</td>
<td>Management Procedures I: Personnel Supervision</td>
<td>4</td>
</tr>
<tr>
<td>BPP-102</td>
<td>Building / Housing Physical Plant / Service Equipment II</td>
<td>4</td>
</tr>
<tr>
<td>GRL-201</td>
<td>Building Laboratory: General Repairs</td>
<td>2</td>
</tr>
<tr>
<td>LSF-201</td>
<td>Life Safety, Security and Fire Protection Systems I</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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## Fourth Semester

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<tr>
<th>Course</th>
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<tr>
<td>BMP-202</td>
<td>Management Procedures II: Property Administration</td>
<td>4</td>
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<tr>
<td>CBC-202</td>
<td>New York City Building Codes</td>
<td>3</td>
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<tr>
<td>FOE-202</td>
<td>Fundamentals of Estimation</td>
<td>4</td>
</tr>
<tr>
<td>LSF-202</td>
<td>Life Safety, Security and Fire Protection System II</td>
<td>3</td>
</tr>
<tr>
<td>OSH-202</td>
<td>OSHA Safety and Health Standards</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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</table>

Credits Required for Graduation: 68-69
FACILITIES MANAGEMENT TECHNOLOGY (FMTC) - CERTIFICATE

This intensive Certificate offers studies in all aspects of the maintenance of residential and commercial buildings. With hands-on laboratory studies in heating, ventilation, air conditioning, refrigeration, plumbing, electricity, and carpentry, the graduate can work as a building maintenance mechanic. With extensive lecture materials on building systems, codes, health and safety, tenant relations, and staff management, the graduate can obtain a resident manager position in building and facilities management. A computer course enhances the skills learned in the program. All course credits are applicable to TCI’s Facilities Management Technology A.O.S. degree program. Graduates may also receive partial credit transfer to the Heating, Ventilation, Air Conditioning, and Refrigeration Technology (HVAC) degree program.

Course Requirements for the Certificate in Facilities Management Technology (HEGIS #5317). The program length is 12 months or three semesters.

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>BPL-101 Building and Plumbing Laboratory</td>
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<tr>
<td>BPP-101 Building /Housing Physical Plant/ Service Equipment I</td>
<td>4</td>
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<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
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<td>HUM-110 Speech</td>
<td>3</td>
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<tr>
<td>MAJ-152 Introduction to the Major: FMT and HVAC</td>
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<tr>
<td>MAT-120 Algebra and Trigonometry I</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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<thead>
<tr>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ACL-101 Air Conditioning and Refrigeration Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ACS-101 Survey of Air Conditioning Systems</td>
<td>4</td>
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<tr>
<td>BES-102 Commercial Building Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>BHP-102 Heating Principles</td>
<td>4</td>
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<tr>
<td>BPC-102 Computer Graphics and Blueprint Reading</td>
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<table>
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<th>Third Semester</th>
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<tbody>
<tr>
<td>BAS-201 Building Automation Systems</td>
<td>1</td>
</tr>
<tr>
<td>BMP-201 Management Procedures I: Personnel Supervision</td>
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<td>BPP-102 Building / Housing Physical Plant/ Service Equipment II</td>
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<td>ENG-101 English Composition I</td>
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<td>GRL-201 Building Laboratory: General Repairs</td>
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<tr>
<td>LSF-201 Life Safety, Security and Fire Protection Systems I</td>
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<td><strong>Total Credits</strong></td>
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</table>

Credits Required for Graduation **48**
The Heating, Ventilation, Air Conditioning and Refrigeration (HVAC) program is designed to prepare students for employment as air conditioning, heating and refrigeration technicians, trained in testing, servicing and maintenance of commercial, industrial and residential climate-control equipment. The program includes hands-on training with a variety of equipment: small room air conditioners, central air conditioning units, commercial freezers, refrigerators, heating technologies, and other related equipment. Emphasis is placed on helping the student to acquire the necessary troubleshooting skills through familiarization with the tools and test equipment used in the field.

The Division of Facilities Technologies requires all HVAC seniors to participate in the Industry Competency Exams (ICE) and/or North American Technician Excellence (NATE) exams as part of the graduation clearance procedure. Test dates are scheduled for each semester to accommodate needs of the graduating seniors. The HVAC/R department is also responsible for the Environmental Protection Agency (EPA) Section 608, Refrigerant Reclaiming Technician Certification Program.

**PROGRAM GOALS AND OBJECTIVES**

**Goals of the Program:**

- To provide students with the theoretical knowledge and the technical skills necessary for employment as HVAC/R technicians.
- To provide entry-level HVAC/R techs to fill the need for all types of facilities and for small businesses.
- To provide students with the tools to continue their education as professional HVAC/R techs.

**Objectives of the Program:**

- Graduates will be knowledgeable about the installation of residential and commercial air conditioning, refrigeration and heating.
- Graduates will be knowledgeable about the operation and troubleshooting protocols for residential and commercial air conditioning.
- Graduates will be knowledgeable about the servicing and troubleshooting protocols for residential and commercial air conditioning.
- Graduates will be knowledgeable about the design and selection criteria for residential and commercial air conditioning.
- Graduates will be afforded the opportunity to develop managerial skills to include written and oral communications and financial literacy.

**Course Requirements** for the Associate in Occupational Studies (A.O.S.) degree in Heating, Ventilation, Air Conditioning and Refrigeration Technology (HEGIS #5317). The program length is two years. Please note that due to limits in evening class schedules, students who pursue this degree at night may require more than four semesters to complete the program.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
## HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION TECHNOLOGY (HVAC)

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
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<td>MAJ-152 Introduction to the Major: FMT and HVAC</td>
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<tr>
<td>MAT-120 Algebra and Trigonometry I</td>
<td>3</td>
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<tr>
<td>PHY-101 Introductory Physics</td>
<td>3</td>
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<tr>
<td>RAC-111 Principles of Refrigeration</td>
<td>3</td>
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<td>RAL-101 Refrigeration Laboratory</td>
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<tr>
<td>REC-101 Electrical Circuit Analysis</td>
<td>3</td>
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<td>REL-101 Electrical Laboratory</td>
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<tr>
<td>BPC-102 Computer Graphics and Blueprint Reading</td>
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<td>ENG-101 English Composition I</td>
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<td>HUM-199 Speech</td>
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<td>RAC-112 Residential Air Conditioning and Refrigeration Systems</td>
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<td>RAL-102 Air Conditioning and Refrigeration Laboratory</td>
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<td>REC-102 Motor Control Circuits</td>
<td>3</td>
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<td>REL-102 Electrical Controls Laboratory</td>
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<tr>
<td>HCS-201 HVAC Control Systems</td>
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<td>HPS-201 Heating Principles</td>
<td>3</td>
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<tr>
<td>RAC-222 Commercial Refrigeration and Air Conditioning Systems</td>
<td>3</td>
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<tr>
<td>RAC-231 Commercial System Analysis and Service</td>
<td>3</td>
</tr>
<tr>
<td>RAL-211 Commercial Equipment Laboratory I</td>
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<tr>
<td>REC-211 Commercial Systems Electricity I</td>
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<td>REL-211 Commercial Electricity and Controls Laboratory</td>
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<tbody>
<tr>
<td>CAD-202 Computer-Assisted Analysis</td>
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<td>HAC-202 Pneumatic Controls</td>
<td>2</td>
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<tr>
<td>HAC-212 Energy Management</td>
<td>2</td>
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<tr>
<td>HAS-202 Heating and Cooling Designs</td>
<td>2</td>
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<td>RAC-202 Industrial Refrigeration</td>
<td>3</td>
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<td>RAL-212 Commercial Equipment Laboratory II</td>
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<td>REC-202 Commercial Systems Electricity II</td>
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<td>REL-212* Heating and Cooling Controls Laboratory</td>
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<td>RIL-212* Industrial Equipment Laboratory</td>
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<tr>
<td>SCB-101 Safety Codes Basics</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

**Credits Required for Graduation** 70

*Cooperative Education students take CE-040 instead of REL-212 or RIL-212.*
Graduates of the Certificate Program are employable as technicians, installers and troubleshooters of domestic and commercial air conditioning and refrigeration units. A solid foundation is offered in applied mathematics and physics for refrigeration, and extensive laboratory work provides “hands-on” experience that allows a smooth transition to employment situations in both small contracting firms and large corporations. All course credits are applicable to the TCI Associate of Occupational Studies (A.O.S.) degree, which includes units in heating systems, heavy commercial and industrial applications in air conditioning and refrigeration, and work in design and energy-efficiency calculations.

Course Requirements for the Certificate in Air Conditioning and Refrigeration Technology (HEGIS #5317). The program length is 12 months or three semesters.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAJ-152  Introduction to the Major: FMT and HVAC</td>
<td>1</td>
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<tr>
<td>MAT-120  Algebra and Trigonometry I</td>
<td>3</td>
</tr>
<tr>
<td>PHY-101  Introductory Physics</td>
<td>3</td>
</tr>
<tr>
<td>RAC-111  Principles of Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>RAL-101  Refrigeration Laboratory</td>
<td>1</td>
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<tr>
<td>REC-101  Electrical Circuit Analysis</td>
<td>3</td>
</tr>
<tr>
<td>REL-101  Electrical Laboratory</td>
<td>1</td>
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<tr>
<td>CMP-101  Introduction to Computers</td>
<td>3</td>
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<td>ENG-101  English Composition I</td>
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<tr>
<td>RAC-112  Residential Air Conditioning and Refrigeration Systems</td>
<td>3</td>
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<tr>
<td>RAL-102  Air Conditioning and Refrigeration Laboratory</td>
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<td>REC-102  Motor Control Circuits</td>
<td>3</td>
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<tr>
<td>REL-102  Electrical Controls Laboratory</td>
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<table>
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<th>Third Semester</th>
<th>Credits</th>
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<tr>
<td>BPC-102  Computer Graphics and Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>RAC-222  Commercial Refrigeration and Air Conditioning Systems</td>
<td>3</td>
</tr>
<tr>
<td>RAC-231  Commercial System Analysis and Service</td>
<td>3</td>
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<tr>
<td>RAL-211  Commercial Equipment Laboratory I</td>
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<tr>
<td>REC-211  Commercial Systems Electricity I</td>
<td>3</td>
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<tr>
<td>REL-211  Commercial Electricity and Controls Laboratory</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

**Credits Required for Graduation**                                           **43**
### FACILITIES TECHNOLOGIES COURSE DESCRIPTIONS

(The numbers to the right of the course designation number and name signify lecture hours, laboratory hours, and credit hours, respectively.)

Refer to the Division of Arts and Sciences section for course descriptions in the Humanities, Cultural Studies, Interdisciplinary Studies, Social Sciences, Natural Sciences, Mathematics, English as a Second Language and the College Preparatory Program.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ACL-101</td>
<td>Air Conditioning and Refrigeration Laboratory</td>
<td>0-2-1</td>
<td>This course focuses on installing gauges, detecting leaks and charging refrigeration systems. Operating characteristics of capillary tube, thermostatic and automatic expansion valves refrigeration systems are also determined. Uses of ohmmeters and volt meters are emphasized. <strong>Corequisite:</strong> ACS-101</td>
</tr>
<tr>
<td>ACS-101</td>
<td>Survey of Air Conditioning Systems</td>
<td>4-0-4</td>
<td>A course that covers subjects as required for facilities maintenance technicians: survey of residential air conditioning systems, basic maintenance, troubleshooting and repair. Theory, concepts and measurements of electricity, series and parallel circuits, transformers and split-phase motors are also covered. <strong>Corequisites:</strong> ACL-101 and MAT-120 or MAT-115</td>
</tr>
<tr>
<td>BAS-201</td>
<td>Building Automation Systems</td>
<td>0-3-1</td>
<td>This course is designed to provide the students with a basic understanding of the proprietary equipment in the industry that automates commercial buildings. Building Automation serves not only as an energy management tool but ensures comfort and security to building occupants through a global and convenient operation system. BAS has steadily become an integral part of commercial building because of its ability to efficiently control air conditioning and heating systems, lighting, security, and life safety equipment. The computer and controllers in the building automation system can be networked to the Internet or serve as a “stand alone” system for the local peer to peer controller network. This lab course will introduce students to the applied computer programming required to monitor and troubleshoot BAS Systems. <strong>Prerequisites:</strong> ACS-101, BES-102 and CMP-101 <strong>Corequisite:</strong> LSF-201</td>
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<tr>
<td>BES-102</td>
<td>Commercial Building Electrical Systems</td>
<td>2-3-3</td>
<td>This course covers the basics of commercial wiring and the planning of a typical commercial installation. The course demonstrates how the load requirements are converted into branch circuits then to feeders, and finally into the building’s main electrical service. Principles of electric circuit analysis: series, parallel and combination are reinforced to facilitate the transition to commercial wiring. The course also contains laboratory experiments where tools, safety rules, electrical working drawings, circuit protection devices, wire sizing, splicing, load capacity, wiring of various switches and assorted receptacles, and lighting fixtures are presented and practiced. Additionally, the construction of an appliance GFCI Test-cord will be completed. Other topics included: inductors, transformers, capacitors, impedance, true power, and apparent power for inductive loads. <strong>Corequisites:</strong> ACL-101 and ACS-101</td>
</tr>
<tr>
<td>BHP-102</td>
<td>Heating Principles</td>
<td>4-0-4</td>
<td>An introduction to types of heating systems, principles and operating characteristics with focus on gas heating, oil heating, electric, heat pump, and steam heating. Domestic hot water systems, including basic steam/hydronic boiler principles and operations, and methods of testing for efficiency are also covered. This course is a preparation for the NYC Fire Department P99 Certificate of Fitness for low-pressure oil burners and the DEP Certificate of Operation for residual fuel oil burners and incinerators.</td>
</tr>
</tbody>
</table>
ACADEMIC PROGRAMS

BMP-201 Management Procedures I: Personnel Supervision 4-0-4
With a focus on career development, communication skills, time and stress management, and the supervisor’s role in management, this course includes concepts of customer service, planning strategies, policy implementation, information management, problem-solving, team-building, motivation and employee evaluations. Consideration is also given to leadership development, equal opportunity under the law, conflict management, counseling and aspects of sexual harassment.

BMP-202 Management Procedures II: Property Administration 4-0-4
This is a lecture course on building operations, policies and procedures. After learning the legal, regulatory, code and labor relations aspects of building management, the student is introduced to principles relating to: project management, budget control, record keeping, reporting, managing contractors, energy conservation and other aspects of cost control. Sanitation, pest control, tenant relations, emergency management, public relations and housekeeping functions are also addressed. Corequisite: FOE-202

BPC-102 Computer Graphics and Blueprint Reading 2-3-3
This course focuses on the techniques of reading blueprints and representations of technical sketching using CAD for dimensions, scales and symbols. Reading of architectural and construction blue print plans, riser diagrams, wiring diagrams are studied, as well as schematics for ductwork, piping and heating systems. Prerequisite: CMP-101

BPP-101 Building/Housing Physical Plant/Service Equipment I 4-0-4
This lecture course introduces the buildings physical plant: the walls, ceilings, floors, and roof structure of the building, and the basic systems and equipment required to service the building’s occupants by providing potable water and sanitary drainage; electrical power; lighting; heating, ventilation, and air conditioning; refuse disposal, fire-protection, and vertical transportation. Prerequisite: BPP-101

BPP-102 Building/Housing Physical Plant/Service Equipment II 4-0-4
This lecture course is a continuation of BPP-101 and includes: human comfort and indoor air quality requirements; psychrometrics; HVAC, air ducts, fans and pumps; refrigerant management; electric, microelectronic and pneumatic controls; Building Automation and Energy Management Systems (BAS & EMS); and related codes and regulations are studied along with preparation for the NYC Fire Department Certificate of Fitness test G-35 (Air-Compressors). Prerequisite: BPP-101

CAD-202 Computer-Assisted Analysis 0-2-2
Use of industry accredited software for heating and cooling load calculations and system analysis. Prerequisite: BPC-102 Corequisite: HAS-202

CBC-202 New York City Building Codes 3-0-3
A lecture course on NYC Building Code inspections, violations, construction and occupancy types, means of egress, emergency power, lighting and signage, environmental laws and regulations, alterations, requirements for HVAC/R, plumbing, fire protection and electrical building trades. Prerequisite: BPP-101

CE-040 Cooperative Education Internship 0-0-4
Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Department of Career Services in the semester prior to and during internship. See the section of the catalog, “Cooperative Education/Internship Program,” for more details.
CMP-101 Introduction to Computers  3-0-3
A broad survey intended to provide the student with an introduction to computer concepts, uses and problem-solving techniques. The topics covered in this course include an introduction to operating systems, word processing, spreadsheets, the Internet and electronic mail. This course is hands-on and students work on projects approved by the instructor. No previous knowledge of computers is required.

FOE-202 Fundamentals of Estimation  4-0-4
A lecture course reviewing principles of preventive, predictive and general maintenance estimation, including unit prices, cost indexes, materials, labor and equipment evaluation, direct and indirect costs. Basic estimating principles as related to general construction, plumbing, HVAC/R and electrical trades productivity, change orders and bidding are introduced.
Prerequisites:  BPC-102 and MAT-120 or MAT-115

GRL-201 Building Laboratory: General Repairs  0-4-2
A course that provides hands-on techniques for maintaining existing structures including tools and materials use, drywall repairs, doors and windows installation, locks and hinges setting, glass cutting and glazing, ceramic tile installation and replacement. Energy efficiency techniques, such as caulking and weather stripping along with a basic understanding of custodial equipment, materials and techniques are also covered.

HAC-202 Pneumatic Controls  2-0-2
An introduction to the basics of pneumatic control systems including the operation and care of the air station, damper and valve actuators, direct and reverse-acting controllers, dual pressure systems, pneumatic relays and selector switches, and receiver-controller transmission systems.
Prerequisites:  HCS-201 and HPS-201

HAC-212 Energy Management  2-0-2
A study of the different sources of energy usage in existing buildings and the indoor operating conditions associated with heat loss/gain of various types of buildings. Other topics include desiccant cooling and the insulation requirements of the building envelope.
Prerequisites:  HPS-201 and REC-211

HAS-202 Heating and Cooling Designs  2-0-2
This course offers a psychometric analysis of the heating and cooling loads of a building in order to size and select the duct system and appropriate equipment. Topics discussed include fluid flow in pipes and ducts as well as the electrical, plumbing and drainage requirements of the equipment.
Prerequisites:  HPS-201 and RAC-222

HCS-201 HVAC Control Systems  3-0-3
An investigation of the principles and operating characteristics of unitary heating/cooling equipment. Emphasis is placed on the electrical control of gas, oil, and electric heating systems as well as heat pumps and cooling equipment.
Prerequisite:  REC-102

HPS-201 Heating Principles  3-0-3
A study of the various types of heating systems and their operating requirements. Topics include gas, oil, and electric, warm air furnaces and hydronic boilers as well as heat pumps and domestic hot water systems. Combustion efficiency testing methods are introduced.
Prerequisites:  RAC-111 and REC-101

LSF-201 Life Safety, Security, and Fire Protection Systems I  3-0-3
This is a course in the theory of life and property protection from fire, including regulations, evacuation procedures, alarm systems, sprinkler systems, tenant education and specialized equipment. Other health, safety, and security codes and procedures are discussed, including handicapped access, and applicable permits and certifications.
Prerequisite:  BPP-101
An extension of LSF-201 that includes fire alarm, emergency, security and telecommunication systems, classification, definitions, requirements, schematics and diagrams. Uninterruptible Power Supply (UPS), various intercom and closed circuit TV (CCTV) systems are covered as well.
**Prerequisite:**  BES-102

MAJ-152  Introduction to the Major:
FMT and HVAC  1-0-1
This course introduces students to the college environment and to their chosen major. Information will be given about TCI's services and opportunities, and about the attitudes and practices needed for effective learning. Overviews of both FMT and HVAC/R Majors will be presented; students will explore these majors as both academic disciplines and as career fields, exploring their beginnings and development over time, their conceptual assumptions, and their culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field. Course work will be enhanced with field trips, attendance of trade shows (ABCO, GreenBuildingsNYC, Cooperators and Condo Expo) or guest lecturers.

MAT-115  Algebra and Trigonometry I  6-0-3
The course content is the same as MAT-120 but offers additional contact hours.

MAT-120  Algebra and Trigonometry I  3-0-3
An introduction to College Algebra using first and second-degree equations, beginning with algebraic expressions, linear equations, graphing and determinants with systems of equations, including the quadratic equation. Trigonometry is then introduced with the concepts of angles, radian measurement, trigonometric functions and the laws of sines and cosines, as used with right and oblique triangles.

OSH-202  OSHA Safety and Health Standards  3-0-3
An occupational safety and health course with a focus on various hazard codes, and types of hazards. Personal protective equipment, safety and health topics, remediation techniques, decontamination, and emergency response are covered. Upon completion of this course a 30-hour Certificate of Training is issued.

PHY-101  Introductory Physics  3-0-3
This course is an algebra-based examination of the standard topics in classical physics. Students investigate the theory of motion, the laws of conservation of energy, thermodynamics, electricity, and magnetism.
**Corequisite:**  MAT-120 or MAT-115

RAC-111  Principles of Refrigeration  3-0-3
This course is an examination of the mechanical refrigeration cycle including the function of compressors, condensers, evaporators, and metering devices. Students learn to use the thermodynamic properties tables of refrigerants to understand the refrigeration cycle. Special attention is paid to the laws governing the behavior of fluids and the relationship of pressure and temperature to the transfer of heat.

RAC-112  Residential Air Conditioning and Refrigeration Systems  3-0-3
This course investigates the operating characteristics of the domestic refrigeration equipment used for food preservation and the air conditioning equipment used for human comfort. A more in-depth analysis of the mechanical refrigeration cycle is done using the Pressure-enthalpy chart. Topics covered include windows and split air conditioning systems refrigerators, domestic freezers as well as an introduction to the psychrometric properties of air, heat load calculation, and sizing of air conditioners. New EPA regulations regarding refrigerant management are also discussed.
**Prerequisite:**  RAC-111

RAC-202  Industrial Refrigeration  3-0-3
A discussion of the equipment, components, and accessories employed in large-scale applications of refrigeration and air conditioning systems such as food storage, food processing, manufacturing processing units, multi-zone air distribution systems, piping and accessories, and centrifugal compressors.
**Prerequisites:**  RAC-222 and RAC-231
**RAC-222** Commercial Refrigeration and Air Conditioning Systems 3-0-3
An intensive study of reciprocating compressor, condensing unit, evaporator and TXV selections, operation and capacity control. Discussions include the operation, maintenance and diagnosis of chilled water systems, cooling towers and pumps.
*Prerequisite: RAC-112*

**RAC-231** Commercial System Analysis and Service 3-0-3
An intensive study of the controls used to regulate defrost, pressure, and refrigerant flow in pump-down, multiple temperature, and ice-making systems. Other topics include the sizing, selection, installation of components; special refrigeration systems; and the operation of cooling towers and evaporative condensers.
*Prerequisite: RAC-112*

**RAL-101** Refrigeration Laboratory 0-3-1
Students learn to test and compare the operating characteristics of the mechanical refrigeration system with different metering devices and/or different refrigerants. These include capillary tubes, automatic expansion valves, thermostatic expansion valves, R-12, R-22, R-134a, R-409 units. Students are also introduced to refrigeration plumbing techniques as well as the use of testing devices such as: manifold gauges, leak detecting equipment, and amp-probes.
*Corequisite: RAC-111*

**RAL-102** Air Conditioning and Refrigeration Laboratory 0-3-1
A practical application of the concepts studied in the courses RAC-102 and REC-102. Actual air conditioning and refrigeration units and programmable simulators are used to determine operating characteristics and to develop proper trouble-shooting techniques. Students are also introduced to service techniques of recovery, evacuation, and charging of equipment.
*Prerequisites: RAL-101 and REL-101*
*Corequisites: RAC-112 and REC-102*

**RAL-211** Commercial Equipment Laboratory I 0-3-1
Testing and troubleshooting air-cooled, water-cooled, open type, hermetic, and semi-hermetic commercial refrigeration equipment with capillary or thermostatic metering devices. Students learn to measure typical operating data for various refrigerants according to temperature applications.
*Prerequisites: RAC-112 and REC-102*
*Corequisite: RAC-231*

**RAL-212** Commercial Equipment Laboratory II 0-3-1
An intensive study of comfort cooling and heating equipment and their distribution systems. Examination and analysis of the sequence of operation of heat pumps, unitary units, remote systems, and high pressure chillers are reviewed.
*Prerequisites: HCS-201, RAC-231 and RAL-211*

**REC-101** Electrical Circuit Analysis 3-0-3
This course introduces the concepts of electricity and the theory of circuit analysis. Students are exposed to series, parallel, and combination circuits using both AC and DC as applied voltage sources. Other topics include: electromagnetism, transformers, inductors, capacitors, true power and apparent power for inductive loads.
*Corequisite: MAT-120 or MAT-115*

**REC-102** Motor Control Circuits 3-0-3
Students are introduced to different types of single phase induction motors and their starting mechanisms. Topics include defrost timers, and fan speed control with emphasis on understanding the purpose and function of all operating and safety controls. Students are also introduced to semi-conductor electronic devices including variable frequency drive.
*Prerequisite: REC-101*
REC-202 Commercial Systems  Electricity II  3-0-3
An analysis of the schematic diagrams of HVAC systems. Emphasis is on understanding and using the sequence of operation to identify circuit malfunctions. Topics include lockout, manual reset, time-delay dual voltage motors, part-winding start, electronic control circuits, and direct digital controls.  
Prerequisite: REC-211

REC-211 Commercial Systems  Electricity I  3-0-3
An exploration of the techniques involved in reading and interpreting wiring diagrams and schematics for HVAC. Emphasis is placed on understanding the purpose of the high, low, and oil pressure controls, thermostats, current protectors, humidity controllers, contractors, relays, and motor starters used in single phase and three phase motors.  
Prerequisite: REC-102

REL-101 Electrical Laboratory  0-3-1
This course is an introduction to electric circuit testing and measurement. Students learn to measure current, voltage, resistance and power. Students also learn to covert schematic diagrams to wiring diagrams and use them to construct series, parallel, and combination circuits. Basic electric circuit troubleshooting techniques are also introduced.  
Corequisite: REC-101

REL-102 Electrical Controls Laboratory  0-3-1
Students make use of the schematic and wiring diagrams of the domestic electrical refrigeration and air conditioning circuit systems to construct and analyze circuits. They continue to use voltmeters, ohmmeters, ammeters, and wattmeters to test these circuit components. Additional experiments with simulators with predetermined faults are also used to diagnose electrical malfunctions.  
Prerequisite: REL-101  
Corequisites: RAC-112 and REC-102

REL-211 Commercial Electricity and Controls Laboratory  0-3-1
A course that teaches students how to wire, test, and troubleshoot single and three phase induction motors. Students work with high and low voltage control circuits and their related safety control mechanisms.  
Prerequisite: REL-102  
Corequisite: REC-211

REL-212 Heating and Cooling Controls Laboratory  0-3-1
Students wire, test, and troubleshoot heat pumps, oil-fired, gas-fired and electric heating systems. Students use programmable trainers to diagnose and correct faults.  
Prerequisites: REC-211 and REL-211

RIL-212 Industrial Equipment Laboratory  0-3-1
A course using training simulators with programmable faults to analyze cycles, air balancing, and various applications of pneumatic controls.  
Prerequisites: RAL-211 and REL-211

SCB-101 Safety Codes Basics  1-0-1
This course is designed to introduce students to safety procedures and safe work practices. Students learn to read Material Data Sheet (MSDS), the latest OSHA regulations and local safety codes. Upon completion of this course, a 10-hour OSHA certificate of training will be issued.
The Health Information Technology (HIT) program prepares students for professional entry-level positions in the health care industry. The curriculum is designed to teach students essential skills and knowledge in this emerging field. Some of the topics covered are medical billing and coding, interpreting health statistics, managing medical office procedures. The program also provides a broad understanding of anatomy and physiology that enables graduates to be well-rounded, contributing members of a medical office team.

PROGRAM GOALS AND OBJECTIVES

Goals of the Program:

• To provide the verbal, written, and technical skills necessary for entry level positions in health information technology
• To familiarize students with industry standard software, laws and practices

Objectives of the Program:

Our graduates will be able to:

• Use current industry software and understand the application of technology in the medical field
• Identify and apply industry policies and guidelines
• Demonstrate knowledge of medical terminology, billing and coding
• Explain basic concepts and terms related to anatomy and physiology
• Demonstrate knowledge of human diseases
• Display ethical and professional behavior
• Read and apply statistical concepts in the health care industry
• Understand the USA Health Care System

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Health Information Technology (HEGIS #5213). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
## HEALTH INFORMATION TECHNOLOGY (HIT)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIT-101 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HIT-104 Introduction to Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110 Speech</td>
<td>3</td>
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<tr>
<td>MAJ-160 Introduction to the Major: Health Information Technology</td>
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<tr>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ASE-### Arts and Sciences Elective (Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
<td>3-4</td>
</tr>
<tr>
<td>BIO-111 Anatomy and Physiology</td>
<td>4</td>
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<tr>
<td>HIT-108 Healthcare Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIT-110 Medical Software Applications</td>
<td>3</td>
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<tr>
<td>MAT-112 College Math</td>
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*Apply for Internship

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<tbody>
<tr>
<td>BIO-211 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>HIT-203 Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HIT-206 Introduction to Health Statistics</td>
<td>3</td>
</tr>
<tr>
<td>HIT-212 Medical Document Processing</td>
<td>3</td>
</tr>
<tr>
<td>HIT-215 Medical Coding I</td>
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<table>
<thead>
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<th>Fourth Semester</th>
<th>Credits</th>
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<tr>
<td>HIT-204 Management in Health Information Technology</td>
<td>3</td>
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<tr>
<td>HIT-205* Introduction to Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HIT-213 Medical Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>HIT-214 Billing and Reimbursement</td>
<td>3</td>
</tr>
<tr>
<td>HIT-216 Medical Coding II</td>
<td>3</td>
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<tr>
<td>HUM-### Humanities Elective</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

**Credits Required for Graduation** **65-66**

*Students meeting requirements of HIT-210 Internship may take it in place of HIT-205.*
The Human Services program covers both the theoretical underpinnings and the practical applications of the Human Services field. The curriculum thoroughly prepares its majors for the job of providing close support to social workers, counselors, psychologists, psychiatrists, and other health care professionals. The duties of Human Service workers include assisting in such areas as establishing applicant eligibility; assessing client capabilities; planning treatments; reviewing case records; responding to inquiries; and performing data searches.

A distinctive feature of the curriculum is that along with courses in psychology and counseling, which enable graduates to help individuals, families and groups to function more effectively, a significant component is in database systems and computer programs for statistical calculations. This component adds to the value of Human Services graduates as employees in health and social work environments since state and federal agencies generally require extensive computer-based documentation of client status and treatment.
HUMAN SERVICES (HSE)

PROGRAM GOALS AND OBJECTIVES

Goals of the program:

• To teach the theories and concepts of the Human Services profession.
• To teach specific skills and techniques for practice in public and private sectors in full compliance with the values and ethics of the Human Services profession.
• To train students to work with diverse populations.
• To provide a broad understanding of the Human Services field, which would allow students to make an informed choice between further continuing their education or seeking gainful employment immediately after graduation.

Objectives:

• Know the history and development of the Human Services profession in the United States.
• Be familiar with various practice settings.
• Be knowledgeable about different communities in which Human Services professionals apply their knowledge and skills.
• Understand the ethical and legal guidelines that govern the profession.
• Be familiar with the most common psychological disorders, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM).
• Have basic knowledge about physiological, cognitive, and psychological changes across the human life span.
• Understand basic principles of bio-psycho-social assessment.
• Know the background of psychoactive drugs and their effect on human behavior.
• Acquire knowledge of various theoretical models current in the field.
• Master specific skills and techniques that are utilized in individual and group settings.
• Understand basic research methods and statistical data.
• Have the software skills currently utilized in the field.

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Human Services (HEGIS #5501). The program length is two years.

*Full course offerings are available over the summer to accelerate your time to degree completion to under two years.*
## ACADEMIC PROGRAMS

### HUMAN SERVICES (HSE)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-199 Speech</td>
<td>3</td>
</tr>
<tr>
<td>MAJ-161 Introduction to the Major: Human Services</td>
<td>1</td>
</tr>
<tr>
<td>HSE-101 Fundamentals of Human Services</td>
<td>3</td>
</tr>
<tr>
<td>PSY-101 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO-122 Introduction to Neurobiology</td>
<td>4</td>
</tr>
<tr>
<td>ENG-102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MAT-112 College Math</td>
<td>3</td>
</tr>
<tr>
<td>HSE-111 Legal and Ethical Issues in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>SOC-101 General Sociology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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*Apply for Internship

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSE-200 Social Statistics with SPSS Lab</td>
<td>3</td>
</tr>
<tr>
<td>HSE-201 Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>HSE-202 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HSE-203 Counseling Theories and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>HSE-213 Multicultural Perspectives in Human Services</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSE-212 Individual Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HSE-215 Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>HSE-216* Psychometrics</td>
<td>3</td>
</tr>
<tr>
<td>HSE-217 Trauma and PTSD: Assessment and Treatment</td>
<td>3</td>
</tr>
<tr>
<td>HSE-218 Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>HSE-219 Gerontology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**Credits Required for Graduation** 65

*Students meeting requirements of HSE-220 Internship may take it in place of HSE-216.
The Ophthalmic Dispenser (also known as the Optician) is an eyecare professional who fills prescriptions for corrective eyewear, in accordance with an ophthalmologist’s or optometrist’s determination. The Ophthalmic Dispensing program combines an in-depth study of optics and anatomy with dispensing knowledge and finishing skills so that graduates have the ability to provide patients with suitable, well-fitted eyeglasses or contact lenses.

The program prepares the student for national certifying examinations given by the American Board of Opticianry and the National Contact Lens Examiners. Certification and graduation establish eligibility for entrance to the New York State Professional Licensing Examination for Ophthalmic Dispensing.

On-campus laboratories and dispensaries resemble those encountered in the optical industry. An on-site clinical internship provides patient contact and dispensing experience. Students train on state-of-the-art instrumentation and machinery, gaining competence in all aspects of opticianry, from fabrication to the dispensing of the finished product. The program emphasizes ethics and professionalism.

The program is accredited by the Commission on Opticianry Accreditation (COA), Debra White, Director of Accreditation, P.O. Box 592, Canton, NY 13617, Director@coaccreditation.com, (703) 468-0566.

OPHTHALMIC DISPENSING (OPTICIANRY)

MISSION

The program in Ophthalmic Dispensing is dedicated to providing quality foundational education for entry-level ophthalmic dispensers and contact lens practitioners.

PROGRAM GOALS AND OBJECTIVES

Goals of the OPT Program:

- To insure that graduates are knowledgeable regarding current technology, procedures, and practices of Opticianry.
- To prepare students to successfully complete national certifying examinations given by the American Board of Opticianry and the National Contact Lens Examiners.
- To prepare graduates to become licensed ophthalmic dispensers.
- To develop students’ understanding of the professional ethics of the practice of Opticianry.
- To insure that graduates have basic knowledge and understanding of acceptable environmental health and safety procedures.
ACADEMIC PROGRAMS

- To work to eliminate hazardous waste and to reduce non-hazardous waste to the minimum levels in an economically and technically practical way, and to be in full compliance with all state and federal environmental regulation in its laboratories and clinics.

- To position graduates, through certification and licensure, to secure professional employment in the optical industry, encouraging them to seek positions of leadership in management and ownership.

- To develop students’ basic understanding of visual assessment.

Objectives of the OPT Program:

Our graduates will be able to:

1. Use effective oral and written communication
2. Perform basic algebra, trigonometry, and geometry
3. Identify the human eye structure, function, and pathology
4. Determine physiognomic (facial and eye) measurements
5. Neutralize eyewear/vision aids
6. Analyze ophthalmic prescriptions
7. Assess vocational and avocational needs of the patient/customer/client
8. Assist in selection of proper frames and lenses
9. Price and collect fees for vision aids and services
10. Prepare ophthalmic laboratory job orders
11. Deliver prescription eyewear/vision aids and instruct patient/customer/client in use and care
12. Provide follow-up services, including eyewear/vision aids, repair, lens and frame replacement
13. Respond to inquiries and concerns
14. Apply rules and regulations for safe work practices
15. Demonstrate proficiency in the operation and function of equipment
16. Utilize and maintain equipment
17. Demonstrate proficiency in finishing techniques
18. Describe visual assessment
19. Maintain records, including third party forms, inventory, and equipment
20. Demonstrate principles of adaptation, dispensing, and fitting of contact lenses
21. Identify procedures associated with dispensing artificial eyes and low vision aids, when appropriate
22. Discuss prescription eyewear/vision aids and other patient/customer/client related information (verbal and written) with the prescriber
23. Demonstrate knowledge of applicable state statutes and regulations

Course Requirements for the Associate in Applied Science (A.A.S.) degree in Ophthalmic Dispensing (HEGIS #5212). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
# ACADEMIC PROGRAMS

## OPHTHALMIC DISPENSING (OPT)

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>ENG-101 English Composition I</td>
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<td>HUM-110 Speech</td>
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<tr>
<td>MAJ-162 Introduction to the Major: Ophthalmic Dispensing</td>
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<tr>
<td>MAT-120 Algebra and Trigonometry I</td>
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<tr>
<td>OPT-111 Ophthalmic Dispensing I</td>
<td>3</td>
</tr>
<tr>
<td>OPT-112 Fabrication Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>OPT-117 Anatomy and Physiology of the Eye I</td>
<td>3</td>
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<tr>
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<tbody>
<tr>
<td>CMP-101 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>OPT-121 Ophthalmic Dispensing II</td>
<td>3</td>
</tr>
<tr>
<td>OPT-122 Fabrication Laboratory II</td>
<td>2</td>
</tr>
<tr>
<td>OPT-124 Geometric Optics</td>
<td>3</td>
</tr>
<tr>
<td>OPT-125 Contact Lenses I</td>
<td>2</td>
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<tr>
<th>Third Semester</th>
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<tbody>
<tr>
<td>OPT-211 Ophthalmic Dispensing III</td>
<td>3</td>
</tr>
<tr>
<td>OPT-212 Fabrication Laboratory III</td>
<td>2</td>
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<tr>
<td>OPT-213 Ophthalmic Optics</td>
<td>3</td>
</tr>
<tr>
<td>OPT-215 Contact Lenses II</td>
<td>2</td>
</tr>
<tr>
<td>OPT-217 Anatomy and Physiology of the Eye II</td>
<td>3</td>
</tr>
<tr>
<td>OPT-218 Ophthalmic Dispensing Laboratory</td>
<td>2</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<thead>
<tr>
<th>Fourth Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASE-### Arts and Sciences Elective (Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
<td>3-4</td>
</tr>
<tr>
<td>OPT-223 Principles of Refraction</td>
<td>3</td>
</tr>
<tr>
<td>OPT-225 Contact Lenses III</td>
<td>2</td>
</tr>
<tr>
<td>OPT-228 Ophthalmic Dispensing Clinic</td>
<td>3</td>
</tr>
<tr>
<td>PSY-101 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>14-15</strong></td>
</tr>
</tbody>
</table>

**Credits Required for Graduation** 63-64
BIO-109 Human Anatomy and Physiology 3-2-4
This course uses laboratory experiments, multimedia computer projections and demonstrations of anatomical models to study chemistry; body fluids; the structure and function of cells; and genetics. Students will study human macroscopic anatomy and physiology of the different systems of the human body. The laboratory component will include study of the microscopic areas of cytology and histology; identification of anatomical structures in models; and artificial reproduction of physiological processes.
Corequisite: ENG-101

BIO-111 Anatomy and Physiology 3-2-4
This course uses laboratory experiments, multimedia computer projections and demonstrations of anatomical models to study chemistry; body fluids; the structure and function of cells; and genetics. Students will study human macroscopic anatomy and physiology of the different systems of the human body. The laboratory component will include study of the microscopic areas of cytology and histology; identification of anatomical structures in models; and artificial reproduction of physiological processes.
Prerequisite: HIT-101
Corequisite: ENG-101

BIO-122 Introduction to Neurobiology 3-2-4
This course is designed to provide students with the fundamental knowledge and principles of neurobiology. It will deliver basic information about human anatomy with a strong emphasis on organization and physiology of the nervous system. The nervous system will be examined thoroughly on cellular and macroscopic levels, with the discussion of neuronal activities and general brain structures. The students will be introduced to neuronal mechanisms of learning and memory, emotions, motivation, feeding behavior, and sleep.

BIO-211 Pathophysiology 3-0-3
This course is a basic study of the major disease processes including their symptoms, diagnosis, and treatment. Students will learn which diagnostic tests are used as well as the invasive and noninvasive surgical techniques. Pharmacology and the most commonly used drugs including gene therapy will be discussed.
Prerequisites: BIO-111 and HIT-101

CMP-101 Introduction to Computers 3-0-3
A broad survey intended to provide the student with an introduction to computer concepts, uses and problem-solving techniques. The topics covered in this course include an introduction to operating systems, word processing, spreadsheets, the Internet and electronic mail. This course is hands-on and students work on projects approved by the instructor. No previous knowledge of computers is required.

HIT-101 Medical Terminology 3-0-3
This course is designed to develop medical vocabulary based upon the principles of medical word building. Medical terminology for each body system is discussed, as well as basic anatomy and physiology.

HIT-104 Introduction to Health Information Systems 3-0-3
This course focuses on the evolution of information systems and how information is generated and used for medical research and billing purposes. The course serves to integrate medical records management and technology into widely used functions. Topics include medical registries and responsibilities of agencies as they relate to health information technology.
### ACADEMIC PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIT-108</td>
<td>Healthcare Systems</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-110</td>
<td>Medical Software Applications</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-203</td>
<td>Epidemiology</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-204</td>
<td>Management in Health Information Technology</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-205</td>
<td>Introduction to Public Health</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-206</td>
<td>Introduction to Health Statistics</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-210</td>
<td>HIT Internship</td>
<td>0-0-3</td>
</tr>
<tr>
<td>HIT-212</td>
<td>Medical Document Processing</td>
<td>3-0-3</td>
</tr>
<tr>
<td>HIT-213</td>
<td>Medical Legal Issues</td>
<td>3-0-3</td>
</tr>
</tbody>
</table>

**HIT-108 Healthcare Systems 3-0-3**

The health industry involves a host of practitioners, with an elaborate network of specialized knowledge, rapidly advancing technologies, techniques, therapies, and management all of which can be diverse in their organization and delivery. This course provides a general overview of the United States health care system, its policy makers, values, and priorities.

**HIT-110 Medical Software Applications 3-0-3**

This course is designed to introduce software and its uses in the medical office and in the health care industry. Word processing and spreadsheet applications will be specifically used as they apply to documentation. **Prerequisite: CMP-101**

**HIT-203 Epidemiology 3-0-3**

The course is an introduction to the study of the distribution of diseases and other health-related events in human populations as related to age, sex, occupation, ethnicity, genetic, environmental, and economic factors in order to promote and understand public health issues. **Prerequisites: BIO-111 and HIT-101**

**HIT-204 Management in Health Information Technology 3-0-3**

This course develops an understanding of management methods used in today’s medical office, proficiency in creating medical communications, and integrates concepts of modern technology in preparation of financial and personal health-related data. The course details methods of ensuring office management through monitoring and coordination of all office components including those related to administration of people, procedures, budget and equipment in accordance with regulations concerning the conduct of a medical office.

**HIT-205 Introduction to Public Health 3-0-3**

This course develops an understanding of current public health organizations and practices, the contributions made by public health measures, as well as national and international health politics. Students will clearly identify all the areas of involvement of health information technology and its contributions. **Corequisite: HIT-213**

**HIT-206 Introduction to Health Statistics 3-0-3**

This course provides a general overview of statistical computations relevant to hospital inpatient and outpatient services. Common statistical collection and display of data used for administrative decision-making is covered.

**HIT-210 HIT Internship 0-0-3**

The Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Career Services Department in the semester prior to and during the internship. See the section of the catalog “Cooperative Education/Internship Program” for more details. **Prerequisites: HIT-108 and HIT-213**

**HIT-212 Medical Document Processing 3-0-3**

This course is designed to provide students with a working knowledge of medical reports and forms. **Prerequisite: CMP-101**

**HIT-213 Medical Legal Issues 3-0-3**

This course is designed to make students aware of the professional code of conduct required of doctors and medical personnel. Topics include ethics of health, decision-making in value issues, basic principles of health, and the nature of rights in ethical discourse. **Prerequisite: ENG-101 Corequisite: HIT-205 or HIT-210**
HIT-214  Billing and Reimbursement  3-0-3
This course is designed to develop an understanding of billing and reimbursement procedures involving workers compensation and commercial careers, and guidelines for billing and coding.  
Prerequisite:  HIT-212

HIT-215  Medical Coding I  3-0-3
The course is designed to develop an understanding of ICD-9-CM and the current CPT characteristics, principles, rules and conventions, which will allow students to transform verbal descriptions of diseases, injuries and medical procedures into codes.  
Prerequisite:  CMP-101  
Corequisite:  HIT-101

HIT-216  Medical Coding II  3-0-3
This course is a continuation of HIT-215 and develops an understanding of ICD-9-CM and the current CPT.  
Prerequisite:  HIT-215

HSE-101  Fundamentals of Human Services  3-0-3
This course develops an understanding of the theoretical frame of the Human Services profession and its applications in practice settings, including services for children and families, teenagers and the elderly. The course focuses on the applications of human services in the context of substance abuse, violence, mental illness, and homelessness as well as clinical and ethical considerations involving the human services professional.

HSE-111  Legal & Ethical Issues in Human Service  3-0-3
This course is designed for students seeking information regarding ethical and legal issues in Human Services. Topics will include ethical standards and professionalism in the different work fields. Issues in the following areas: supervision and consultation, group work, theory, practice and research, diversity and multicultural perspectives, confidentiality, client rights, and counselor responsibilities.

HSE-200  Social Statistics with SPSS Lab  3-1-3
This course provides a general overview of Statistical Computation relevant to human, social services, and other areas of health. The lab component trains students in the use of SPSS as one of the most versatile tools for operating data in social, natural behavioral and sciences.  
Prerequisites:  MAT-112 or MAT-111, and CMP-101

HSE-201  Human Growth and Development  3-0-3
This course offers a broad overview of perspectives, principles, theories, and research findings associated with the field of human life-span development. The aim of the course is to provide a foundation of knowledge that will help students become more effective practitioners, critical decision-makers, and compassionate human beings.  
Prerequisite:  PSY-101

HSE-202  Abnormal Psychology  3-0-3
This course focuses on the understanding of human abnormal behaviors and the assessment of diagnostic methods. Topics include concepts of normalcy, models of abnormal designations, identification and classification of abnormal behavior as well as issues on treatment, prevention, and intervention. Age, gender, cultural, legal and ethical perspectives are differentiated.  
Prerequisite:  PSY-101

HSE-203  Counseling Theories and Techniques  3-0-3
This course provides general knowledge on the foundations and basic theories of counseling and psychotherapy. It focuses on the psychoanalytic, existential, gestalt, cognitive, and behavioral theories in psychotherapy. It also provides knowledge on nontraditional and integrative approaches in counseling practice. Topics include family and feminist theories, expressive arts and reality therapy practices.  
Prerequisite:  PSY-101
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSE-212</td>
<td>Individual Counseling</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course provides general knowledge in</td>
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<td></td>
<td>understanding the unique processes of</td>
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<td></td>
<td>counseling and therapeutic influence and</td>
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<td></td>
<td>intervention. It focuses on three perspectives</td>
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<td></td>
<td>of contemporary psychotherapy: assessment,</td>
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<td></td>
<td>multicultural approach, and types of</td>
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<td></td>
<td>relationships between the client and the</td>
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<td></td>
<td>therapist. Topics include the links of culture</td>
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<td></td>
<td>and context, oppression and prejudice, values</td>
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<td>and worldviews, context listening, group</td>
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<td>membership peculiarities, types of group</td>
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<td></td>
<td>identity and group transformation.</td>
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<td></td>
<td><strong>Prerequisite:</strong> HSE-202</td>
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<tr>
<td>HSE-213</td>
<td>Multicultural Perspective in Human Services</td>
<td>3-0-3</td>
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<tr>
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<td>This course develops an understanding of the</td>
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<td></td>
<td>cultural differences related to race, ethical</td>
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<td></td>
<td>background, religious beliefs, age, sexual</td>
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<td></td>
<td>orientation, language, socioeconomic status;</td>
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<td></td>
<td>and the complexity of human behavior related</td>
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<td></td>
<td>to these factors</td>
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<tr>
<td>HSE-215</td>
<td>Group Dynamics</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course focuses on a variety of aspects of</td>
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<td></td>
<td>group development and functioning: age, gender,</td>
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<td></td>
<td>cultural, therapeutic, legal, and ethical.</td>
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<td></td>
<td>The role of higher technology for the field of</td>
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<td></td>
<td>group dynamics is introduced. Topics include</td>
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<td></td>
<td>group analysis, effective leadership, the start,</td>
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<tr>
<td></td>
<td>transition, and termination of a group.</td>
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<td></td>
<td><strong>Prerequisite:</strong> HSE-203</td>
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<tr>
<td>HSE-216</td>
<td>Psychometrics</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course introduces the student to the design</td>
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<td></td>
<td>theory, construction, validation and</td>
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<td></td>
<td>interpretation of psychological testing and the</td>
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<td></td>
<td>utilization of tests in a wide variety of clinical,</td>
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<td></td>
<td>diagnostic, educational levels, organizational</td>
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<td></td>
<td>and industrial placement. A selection of widely</td>
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<td></td>
<td>used tests is examined and evaluated.</td>
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<td></td>
<td><strong>Prerequisite:</strong> HSE-202</td>
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<tr>
<td>HSE-217</td>
<td>Trauma and PTSD: Assessment and Treatment</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course provides students with a</td>
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<td></td>
<td>comprehensive knowledge and skills to assess</td>
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<td>and work with individuals and groups affected</td>
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<td></td>
<td>by psychological trauma. Symptoms</td>
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<td></td>
<td>experienced by victims of trauma related to age,</td>
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<tr>
<td></td>
<td>gender, and sexual orientation are examined.</td>
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<tr>
<td></td>
<td>The historical perspective of trauma is explored.</td>
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<tr>
<td></td>
<td>Vicarious traumatization, grief reaction, and</td>
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<td></td>
<td>disorders, such as Post Traumatic Stress</td>
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<tr>
<td></td>
<td>Disorder (PTSD), are thoroughly discussed.</td>
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<td></td>
<td>Upon completion of this course, students will</td>
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<tr>
<td></td>
<td>learn best evidence-based skills and techniques</td>
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<tr>
<td></td>
<td>currently practiced with different population in</td>
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<tr>
<td></td>
<td>the trauma field.</td>
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<td></td>
<td><strong>Prerequisites:</strong> HSE-201, HSE-202, HSE-203</td>
<td></td>
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<tr>
<td>HSE-218</td>
<td>Substance Abuse</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course focuses on the impact of substance</td>
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<tr>
<td></td>
<td>abuse on individuals, their families, and their</td>
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<tr>
<td></td>
<td>communities, and the methods of assessment and</td>
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<td></td>
<td>therapeutic approaches.</td>
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<tr>
<td></td>
<td><strong>Prerequisites:</strong> HSE-202 and HSE-111</td>
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</tr>
<tr>
<td>HSE-219</td>
<td>Gerontology</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course provides knowledge on adult</td>
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<tr>
<td></td>
<td>development and aging in psycho-physiological</td>
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<tr>
<td></td>
<td>and social psychological perspectives. It develops</td>
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<tr>
<td></td>
<td>a general understanding of the</td>
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<tr>
<td></td>
<td>meaning of adulthood and human aging. The</td>
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<tr>
<td></td>
<td>course stresses the health aspects of the elderly,</td>
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<td></td>
<td>their relationships in adulthood, the social</td>
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<tr>
<td></td>
<td>organization of elderly life, main genetic and</td>
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<tr>
<td></td>
<td>environmental factors on adult development.</td>
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<td></td>
<td>Issues on stress, coping, leisure, creativity,</td>
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<tr>
<td></td>
<td>work, and retirement in old age are discussed.</td>
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<tr>
<td></td>
<td><strong>Prerequisites:</strong> HSE-201, HSE-202, HSE-203</td>
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<tr>
<td>HSE-220</td>
<td>HSE Internship</td>
<td>0-0-3</td>
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<tr>
<td></td>
<td>The Cooperative Education/Internship Program</td>
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<td></td>
<td>integrates college-level academic study with</td>
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<td></td>
<td>on-the-job experience. A student must successfully</td>
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<td></td>
<td>complete requirements set by the Career Services</td>
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<td></td>
<td>Department in the semester prior to and during</td>
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<td></td>
<td>the internship. See the section of the catalog</td>
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<td></td>
<td>“Cooperative Education/Internship Program” for</td>
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<td></td>
<td>more details.</td>
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<tr>
<td></td>
<td><strong>Prerequisites:</strong> HSE-111 and HSE-201</td>
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</tr>
</tbody>
</table>
MAJ-160 Introduction to the Major: Health Information Technology  1-0-1
This overview of Health Information Technology will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-161 Introduction to the Major: Human Services  1-0-1
This overview of Human Services will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions, and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

MAJ-162 Introduction to the Major: Ophthalmic Dispensing  1-0-1
This overview of Ophthalmic Dispensing will cover the major as both an academic discipline and a career field, exploring its beginnings and development over time, its conceptual assumptions and its culture. There will be hands-on-applications to provide initial experiences with the specific skills and methods which are used in the classroom and in the field.

OPT-111 Ophthalmic Dispensing I  3-0-3
This course familiarizes the student with the history of ophthalmic dispensing, and the evolution of contemporary lens and frame design. Prescription analysis, anatomical measurement, and dispensing procedures are introduced. Refractive errors and corrective lenses are discussed.

OPT-112 Fabrication Laboratory I  1-2-2
In this course, the student is introduced to the instrumentation, equipment, and procedures of an ophthalmic laboratory. A fundamental knowledge of finishing technique is acquired.

OPT-117 Anatomy and Physiology of the Eye I  3-0-3
This course provides an in-depth investigation of the human ocular system. Cranial nerve innervations, orbital anatomy, lid structure, and an analysis of the tear film are presented. An in-depth discussion of corneal anatomy completes the course of study.

OPT-121 Ophthalmic Dispensing II  3-0-3
This course allows the study of more complex prescription analyses including corrections for astigmatism and presbyopia. Students learn techniques for standard alignment and frame adjustment. Prescriptions, including prismatic effects and anisometropia, are discussed and evaluated.
Prerequisite:  OPT-111

OPT-122 Fabrication Laboratory II  1-2-2
In this course, the student develops the knowledge and skills required to finish single vision prescription eyewear. Instruction is provided in layout and marking, edging, insertion, bench alignment and verification.
Prerequisite:  OPT-112

OPT-124 Geometric Optics  3-0-3
This course explores the physics of light. Topics include the nature of light, theories of light, shadows, reflection, and refraction. Advanced application of optics is presented. Topics include the optics of thin lenses, prismatic deviation, telescopic systems, apparent depth and critical angle.
Prerequisite:  MAT-120 or MAT-115

OPT-125 Contact Lenses I  2-1-2
This course provides the student with a foundation in contact lens theory. A laboratory component addresses the use of instrumentation essential to fitting.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT-211</td>
<td>Ophthalmic Dispensing III</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>This course is a continuation of prescription</td>
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<tr>
<td></td>
<td>analysis with special attention to dispensing</td>
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<tr>
<td></td>
<td>according to lifestyle. Progressive and</td>
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<tr>
<td></td>
<td>occupational lens fittings are discussed. The</td>
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<tr>
<td></td>
<td>course covers specialty issues in dispensing</td>
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<tr>
<td></td>
<td>including pediatric fitting and safety issues,</td>
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<td></td>
<td>geriatric fitting and low vision, considerations</td>
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<td></td>
<td>for the dispensing of safety eyewear and the</td>
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<tr>
<td></td>
<td>psychology of fitting. Ethical dispensing is</td>
<td></td>
</tr>
<tr>
<td></td>
<td>stressed.</td>
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<tr>
<td></td>
<td><strong>Prerequisite:</strong> OPT-121</td>
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<tr>
<td>OPT-212</td>
<td>Fabrication Laboratory III</td>
<td>1-2-2</td>
</tr>
<tr>
<td></td>
<td>In this course, students extend their skills</td>
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<tr>
<td></td>
<td>with projects involving multi-focal lenses and</td>
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<td></td>
<td>metal frames. Other projects include the</td>
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<td></td>
<td>finishing of eyewear using specialty lenses</td>
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<td></td>
<td>and new frame materials.</td>
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<tr>
<td></td>
<td><strong>Prerequisite:</strong> OPT-122</td>
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<tr>
<td>OPT-213</td>
<td>Ophthalmic Optics</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>This course explores ophthalmic optics theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>as applied in spectacle and contact lens</td>
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<tr>
<td></td>
<td>dispensing. Formulas covered include those</td>
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<tr>
<td></td>
<td>involving ophthalmic lenses and prisms. Advanced</td>
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<tr>
<td></td>
<td>lens topics studied include tilt, vertex</td>
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<td></td>
<td>distance, magnification, and sagittal depth.</td>
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<td></td>
<td><strong>Prerequisite:</strong> MAT-120 or MAT-115</td>
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<tr>
<td>OPT-215</td>
<td>Contact Lenses II</td>
<td>2-1-2</td>
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<tr>
<td></td>
<td>This course guides the student through the basic</td>
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<tr>
<td></td>
<td>fitting of rigid and soft contact lenses. Early</td>
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<tr>
<td></td>
<td>weeks concentrate on the initial examination,</td>
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<td></td>
<td>history taking and diagnostic testing. Included</td>
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<td></td>
<td>in the practical fitting section are: parameter</td>
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<td></td>
<td>determination, fitting analysis including fitting</td>
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<tr>
<td></td>
<td>notation and fluorescein patterns, power rules,</td>
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<tr>
<td></td>
<td>visual acuity, and complications. Final weeks</td>
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<td></td>
<td>focus on patient communication, care and</td>
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<td></td>
<td>handling.</td>
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<td></td>
<td><strong>Prerequisite:</strong> OPT-125</td>
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<tr>
<td>OPT-217</td>
<td>Anatomy and Physiology of the Eye II</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>This course is a continuation of OPT-117 with</td>
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</tr>
<tr>
<td></td>
<td>emphasis on the uvea, retina, color vision,</td>
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<tr>
<td></td>
<td>visual pathways, extra-ocular muscles and</td>
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<td></td>
<td>pharmacology. Pathology of various ocular</td>
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<tr>
<td></td>
<td>structures is discussed.</td>
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<td></td>
<td><strong>Prerequisite:</strong> OPT-117</td>
<td></td>
</tr>
<tr>
<td>OPT-218</td>
<td>Ophthalmic Dispensing Laboratory</td>
<td>1-2-2</td>
</tr>
<tr>
<td></td>
<td>This course provides the student with “hands-on”</td>
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<tr>
<td></td>
<td>training for skills required in the clinical</td>
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<tr>
<td></td>
<td>setting. Students master lensometry, frame</td>
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<tr>
<td></td>
<td>fitting and adjustment, and prescription</td>
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<tr>
<td></td>
<td>analysis.</td>
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<tr>
<td></td>
<td><strong>Co-requisite:</strong> OPT-121</td>
<td></td>
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<tr>
<td>OPT-223</td>
<td>Principles of Refraction</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td>The theory of refraction is introduced. The</td>
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<td></td>
<td>course presents the etiology, types, causes,</td>
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<td></td>
<td>symptoms, testing and treatment of refractive</td>
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<td>abnormalities of the eye.</td>
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<tr>
<td></td>
<td><strong>Prerequisites:</strong> OPT-213, OPT-217, or</td>
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<tr>
<td></td>
<td>permission of the Department Chair</td>
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<tr>
<td>OPT-225</td>
<td>Contact Lenses III</td>
<td>1-2-2</td>
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<tr>
<td></td>
<td>Fitting techniques for rigid and soft lenses</td>
<td></td>
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<tr>
<td></td>
<td>are presented in this course with special</td>
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<tr>
<td></td>
<td>emphasis on the evaluation of the fit. Fitting</td>
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<tr>
<td></td>
<td>procedures for toric, multi-focal and aspheric</td>
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<tr>
<td></td>
<td>contact lenses are explored.</td>
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<tr>
<td></td>
<td><strong>Prerequisite:</strong> OPT-215</td>
<td></td>
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<tr>
<td>OPT-228</td>
<td>Ophthalmic Dispensing Clinic</td>
<td>0-3-3</td>
</tr>
<tr>
<td></td>
<td>The clinical internship provides actual spectacle</td>
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<tr>
<td></td>
<td>dispensing and contact lens fitting experience</td>
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<tr>
<td></td>
<td>with patient contact in the college dispensary.</td>
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<tr>
<td></td>
<td>Under supervision, interns analyze prescriptions,</td>
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<tr>
<td></td>
<td>advise patients in their choice of lens design</td>
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<td></td>
<td>and frame selection, determine proper</td>
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<td>parameters, order the appropriate lenses and</td>
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<td></td>
<td>dispense the completed eyewear with</td>
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<tr>
<td></td>
<td>proper fitting techniques. Special emphasis is</td>
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<tr>
<td></td>
<td>placed on ethical dispensing and professional</td>
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<tr>
<td></td>
<td>conduct.</td>
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<tr>
<td></td>
<td><strong>Prerequisites:</strong> OPT-215 and OPT-218</td>
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</tr>
</tbody>
</table>
ACADEMIC PROGRAMS

DIVISION OF ARTS AND SCIENCES

Dean – Dr. John Luukkonen
Ph.D., Capella University
M.Ed., University of Houston   B.A., University of Kentucky
Room 400, Extension 5762

Chairperson, Department of Digital Media Arts – Kim O’Brien-Seewai
B.F.A., Fashion Institute of Technology of SUNY: Graphic Design
Room 418, Extension 5729

Chairperson, Department of English as a Second Language – Nannette Jacobs
M.S., City College of CUNY   B.M., Drury College
Extension 5348

Chairperson, Department of Liberal Arts and Sciences – Dr. Miguel Arisa
Ph.D., Graduate Center, CUNY   M.A., Hunter College of CUNY
M.A., New York University   B.A., University of Puerto Rico
Room C-49, Extension 5308

Coordinator, College Preparatory Program – Tagor Ariot
M.A., American Graduate School for International Relations and Diplomacy, Paris, France
B.A., Hamilton College
Room C, Extension 3107

Coordinator, English and Literature – Michael Cohen
B.A., Queens College of CUNY: English

Coordinator, Department of Mathematics – Silvio Reyes
M.E., City College of CUNY   M.S., City College of NY   B.S., Universidad del Cauca
Certifications: CNA, CCNA, N+, MCP-2000, MCSE, MCT, MCSA, MCDBA, Linux+, Sun Solaris
Room 315A, Extension 5761
The Division of Arts and Sciences (DAS) offers a major in Digital Media Arts, an English-as-a Second Language (ESL) program, a College Preparatory Program, and courses in General Education. The General Education curriculum includes required courses in English, Speech, and Mathematics, and elective courses in the Humanities, Social Sciences, and Natural Sciences. Students should become familiar with the specific requirements in each area, which vary by major.

The purpose of the General Education curriculum is to ensure that students, upon graduation, possess not only technical skills and knowledge, but also the broader intellectual abilities which are essential for both career mobility and making sound choices in all phases of life. General Education courses cover, among other subjects, written and oral communication, critical and ethical thinking, scientific and quantitative reasoning, information literacy, aesthetic appreciation, and social, cultural, and historical perspectives.

For students who need assistance in preparing for college-level coursework, the DAS provides basic skills education in English and Mathematics. In addition, non-native speakers may be placed into one of three levels of English language training to adequately prepare them for an English language academic environment.

The DAS faculty are dedicated to assisting and mentoring students from their first semester through the completion of their degree. Many of the faculty are actively engaged in their disciplines outside of the classroom and bring real-word experience to the classroom. Moreover, the DAS faculty strive to provide students with a strong foundation for further educational advancement and the pursuit of lifelong learning.
The Internet is a networked communication media that is commonly used by businesses, educational institutions and the entertainment industry. The field of web design has gradually shifted to Internet application design. To achieve success in today’s digital environment, designers must have an understanding of and combined skills in: computers, digital design, interactive multimedia and Internet applications. The Digital Media Arts Technology Program is established to train individuals to design and work with web, video, and print technology. The curriculum offers computer, Internet, digital design and interactive multimedia courses. Students are expected to become proficient in digital design.

**PROGRAM GOALS AND OBJECTIVES**

**Goals of the Program:**
- To provide the skills and knowledge required to fill entry level positions in Digital Media Arts.
- To introduce students to the latest technology/software used in digital media arts, including, but not limited to: HTML5, CS3, Adobe Software.
- To offer hands-on training in web, video, print and smart objects.

**Objectives of the Program:**
Upon graduation, our students will be able to:
- Use industry standard software proficiently.
- Use different forms of technology to accomplish goals and exhibit computer literacy.
- Use oral and written communication skills to communicate effectively in an organizational setting.
- Collaborate on design projects.
- Use color effectively within digital artwork.
- Identify proper usage and violations of basic design principles.
- Explain industry history and culture.
- Identify proper set up of digital documents for Print, Web, Smart Objects or Video demonstrations.

**Course Requirements** for the Associate in Applied Science (A.A.S.) degree in Digital Media Arts Technology (HEGIS #5310). The program length is two years.

* Full course offerings are available over the summer to accelerate your time to degree completion to under two years.
## DIGITAL MEDIA ARTS TECHNOLOGY (DMA)

### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMP-101</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>DMA-102</td>
<td>Color and Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>DMA-103</td>
<td>Fundamentals of Digital Design</td>
<td>1</td>
</tr>
<tr>
<td>DMA-107</td>
<td>Computer Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ENG-101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HUM-110</td>
<td>Speech</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>16</strong></td>
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### Second Semester

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART-111 or ART-112</td>
<td>Art History I or Art History II</td>
<td>3</td>
</tr>
<tr>
<td>DMA-104</td>
<td>Digital Design I</td>
<td>3</td>
</tr>
<tr>
<td>DMA-110</td>
<td>Fundamentals of Internet Applications</td>
<td>3</td>
</tr>
<tr>
<td>DMA-111</td>
<td>Introduction to Animation</td>
<td>3</td>
</tr>
<tr>
<td>ENG-102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MAT-112</td>
<td>College Mathematics</td>
<td>3</td>
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</tbody>
</table>

**Apply for Internship**

| **Total Credits** | **18** |

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASE-###</td>
<td>Arts and Sciences Elective (Courses prefixed ART, BIO, ECO, ENG, ERS, GOV, HIS, HUM, LIT, MAT, PHY, PSY and SOC)</td>
<td>3 or 4</td>
</tr>
<tr>
<td>DMA-204</td>
<td>Digital Design II</td>
<td>3</td>
</tr>
<tr>
<td>DMA-205</td>
<td>Web-Based Interactivity</td>
<td>3</td>
</tr>
<tr>
<td>DMA-207</td>
<td>Print Design I</td>
<td>3</td>
</tr>
<tr>
<td>DMA-211</td>
<td>Advanced Internet Applications I</td>
<td>3</td>
</tr>
<tr>
<td>DME-###</td>
<td>DMA Elective</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>18 or 19</strong></td>
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### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DMA-208</td>
<td>JavaScript</td>
<td>3</td>
</tr>
<tr>
<td>DMA-212</td>
<td>Advanced Internet Applications II</td>
<td>3</td>
</tr>
<tr>
<td>DMA-240</td>
<td>Portfolio Presentation</td>
<td>1</td>
</tr>
<tr>
<td>DME-###**</td>
<td>DMA Elective</td>
<td>3</td>
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<tr>
<td>HUM-###</td>
<td>Humanities Elective</td>
<td>3</td>
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<tr>
<td>LIT-###</td>
<td>Literature Elective</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td></td>
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</table>

### Credits Required for Graduation

| **68 or 69** |

*If the student is accepted for internship, the student will select DMA-200 among the DMA electives.*

Students must apply for the co-op in the first few weeks of the second semester.

### Approved Electives for the DMA Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA-200*</td>
<td>DMA Internship</td>
<td>3</td>
</tr>
<tr>
<td>DMA-203</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>DMA-217</td>
<td>Print Design II</td>
<td>3</td>
</tr>
<tr>
<td>DVP-210</td>
<td>Video Production Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DVP-220</td>
<td>Video Post Production</td>
<td>3</td>
</tr>
</tbody>
</table>
STUDIO ART COURSES

Please note: All students may enroll in studio art courses when offered. However, the courses are not considered Arts and Sciences Electives or Humanities Electives and may not be used to meet those requirements, with the following exception. Within the Digital Media Arts program, one studio art course may be taken to meet the Arts and Sciences Elective.

ART-102  The Foundations of Art  3-0-3
An introduction to two-dimensional design concepts and color theory. The primary goals are the development of technical and critical skills as they apply to painting and drawing. The student will explore aspects of line, form, texture, space and composition as well as color theory.

ART-103  Perspective and Drawing Techniques (Studio)  3-0-3
A course to develop drawing skills which includes one and two-point perspective, freehand drawing, expression, still life and compositional studies. An introduction to drawing as a visual language, as a system for thinking visually, as a process for discovery, planning and as an approach to developing a drawing style.

ART-212  Independent Study (Studio)
Independent projects in art initiated by the student and executed under close supervision by an art faculty member. Projects should be advanced or specialized. 
Prerequisite: permission of instructor and dean.

DIGITAL MEDIA ARTS COURSES

DMA-102  Color and Graphic Design  2-2-3
An introduction to the concepts and practice in the use of color, drawing and graphic techniques. Students will be guided through a variety of visualization techniques to improve skills in interpreting color and form.

DMA-103  Fundamentals of Digital Design  0-3-1
This is a fundamental course of digital design theories and practices. Design principles, color theory and typography are also discussed.

DMA-104  Digital Design I  2-2-3
A study of the techniques in digital imaging and digital illustration to produce still images for both print media and web applications. A variety of layout tools are considered for web page layout. Prerequisite: DMA-102

DMA-107  Computer Drawing  2-2-3
This course will serve as a general introduction to basic drawing concepts on and off the computer. In addition, it will introduce students to many of the computer applications used for design and graphics production, demonstrating how they may be applied to particular drawing techniques and graphic problems. Students will practice representational skills, translate their hand drawings digitally, and develop drawings from scratch directly within the digital environment.

DMA-110  Fundamentals of Internet Applications  2-2-3
An overview of Internet server technology. Students learn about XHTML as a tool for describing the elements of a web page to a web browser. Aspects of Cascading Style Sheets (CSS) are also discussed.
Prerequisites: CMP-101 and DMA-103
DMA-111  Introduction to Animation  2-2-3
An introduction to digital animation using current computer software. The GUI, toolbar and menu of the software will be introduced. Animation projects will be investigated and creative expression is encouraged and discussed.
Prerequisite: DMA-107

DMA-200  DMA Internship  0-0-3
The Cooperative Education/Internship Program integrates college-level academic study with on-the-job experience. A student must successfully complete requirements set by the Department of Career Services in the semester prior to and during internship. See the section of the catalog “Cooperative Education/Internship Program” for more details.

DMA-203  Digital Photography  1-4-3
This course introduces students to the concepts of photography in both film and digital formats, with a concentration on digital techniques in practice and theory. The course will demonstrate the basic uses of the camera, lenses, lights and filters. It will also introduce students to the concepts of photographic exposure and the use of photographic design techniques. Display options for offset print, digital, and gallery display will be discussed.
Prerequisite: DMA-102
*Students are required to provide their own digital camera

DMA-204  Digital Design II  2-2-3
A continuation of Digital Design I in page layout and presentation further enhancing skills in imaging and digital illustration. The concepts of presentation layout are investigated with particular emphasis on individual aesthetics.
Prerequisites: DMA-104 and DMA-110

DMA-205  Web-Based Interactivity  2-2-3
An introduction to topics in digital animation furthered by the use of scripting to implement interactivity. Students learn scripting and its use in guiding a user through an animation. User interface creation is discussed and the aesthetics of interactive design is introduced.
Prerequisite: DMA-111

DMA-207  Print Design I  2-2-3
An overview of print layout and design using current industry computer software. Students learn basic vocabulary and techniques of the trade through creative technical exercises and assignments.
Prerequisite: DMA-107

DMA-208  JavaScript  2-2-3
A course designed to equip students with the fundamental knowledge of controlling the elements of the browser, including the web page and its entities through scripts such as JavaScript.
Prerequisites: CMP-101 and DMA-110

DMA-211  Advanced Internet Applications I  2-2-3
This course provides students with the skills in designing and building a simple database. Students are able to apply SQL to obtain information from a database and utilize PHP or like technology along with the necessary code libraries to publish the stored information as a web page.
Prerequisite: DMA-110

DMA-212  Advanced Internet Applications II  2-2-3
This course further discusses the server-side scripting thru PHP or like technology as well as processes involved in adding, removing, updating and obtaining information to and from a database.
Prerequisite: DMA-211

DMA-217  Print Design II  2-2-3
A continuation of Print Design I with a focus on print layout and design using current computer software. Students learn advanced vocabulary and techniques of the trade through industry-related assignments.
Prerequisite: DMA-207
DMA-240  Portfolio Presentation  0-3-1
This class will informally assess the retention of material taught throughout the program and the ability of the student to use the knowledge of such material together with their unique talents to prepare and execute a portfolio presentation. This class will also introduce the business environment of the web, multimedia, and e-commerce industries, and allow the student to analyze their place within these industries through analysis of potential employers, job descriptions, and case studies.
Prerequisites: DMA-204, DMA-205, DMA-207, DMA-211
Corequisites: DMA-208, DMA-212

DVP-210  Video Production Techniques  1-4-3
This course will introduce the student to production practices and techniques needed to achieve quality recording of audio and video scripted scenes. The student will learn to operate a Professional Digital Video Camera for student project films. The student will be expected to demonstrate technical proficiency in camera operations (e.g. framing, focus, movement, composition, white balance, coverage) as well as the ability of composing shots from a script in collaboration with a director. Each student will learn, practice and demonstrate their ability to light a set and techniques in recording location sound.
Prerequisite: DMA-104

DVP-220  Post Production  2-2-3
This course will introduce the student to non-linear digital film editing. The student will demonstrate their proficiency in editing by logging source footage, assembling and trimming sequences, editing audio, creating titles, and outputting a finished product.
Prerequisite: DMA-211
COLLEGE PREP PROGRAM

ENG-081 Basic Reading Skills 3-0-0
A non-credit-bearing course designed to improve the student’s ability to read and comprehend written materials. Students will interpret and analyze written passages to ensure enhancement of comprehension and vocabulary.

ENG-082 Basic Writing Skills 3-0-0
A non-credit-bearing course designed to improve the student’s ability to communicate effectively and coherently with a concentration on writing skills. Guided by professional examples, students will write paragraphs and essays in a variety of modes.

ENG-099 Basic Communications 3-0-0
A non-credit course designed to help students improve their communication skills, particularly their writing skills, through free writing, journal writing, paragraph development, editing, and revising of their own essays. The reading component enhances vocabulary and comprehension skills.

MAT-091 Pre-algebra 3-1-0
A non-credit-bearing course designed to introduce and review basic mathematical concepts necessary for College Algebra. The course contains an overview of the basic equations of natural numbers, integers, fractional numbers, units of measurement, basic geometry, decimal place values and laws of exponents.

HUMANITIES

ART-111 Art History I: Western Art from Prehistory to the Early Renaissance 3-0-3
A chronological survey of western art and architecture from prehistory through the Early Renaissance. An analysis of major cultural and stylistic developments in the Mediterranean and European regions. Study aids include a textbook, a CD-ROM, Internet interactive services, field trips to galleries and museums, and lectures. Students will write a research paper under the instructor’s direction.

ART-112 Art History II: Western Art from Early Renaissance to the Contemporary World 3-0-3
A chronological study of the major artistic movements from the European Renaissance through the contemporary art world, with a focus on New York. Students will study major art and architecture movements within the context of European and American society. The changing cultural role of art is emphasized during study of the twentieth century. Study aids include a textbook, a CD-ROM, Internet interactive services, field trips to galleries and museums, and lectures. Students will write a research paper under the instructor’s direction.

ART-211 Independent Study
Independent projects in art initiated by the student and executed under close supervision by an art faculty member. Projects should be advanced or specialized.
Prerequisite: permission of instructor and dean.

ART-213 History of Photography 3-0-3
This course offers an introduction to the evolution of the art of photography from its inception in 1839 to the present. It will develop visual literacy and historical context to this practice that has come to envelop our society in all of its aspects: political, social, cultural, commercial.
ART-215 History of New York City Architecture 3-0-3
This course studies the history of architecture in New York City. Students are introduced to style, iconography, technical innovation, geography, and the cultural, social, economic, and political forces that have shaped the city’s buildings from the early seventeenth century to the present.

ENG-100 English Composition I 3-2-3
An introduction to all phases of the writing process, including essay prewriting, composition and revision. Students master the skills needed for effective writing. Essays are written in four rhetorical modes: exposition, description, narration and argumentation. Two laboratory hours are included for extra assistance. This course is designed for students who have completed coursework in college preparatory studies, namely ENG-081 and/or ENG-082. This course serves as a prerequisite for advanced English, Humanities and Literature courses.

ENG-101 English Composition I 3-0-3
An introduction to all phases of the writing process, including essay prewriting, composition and revision. Students master the skills needed for effective writing. Essays are written in four rhetorical modes: exposition, description, narration and argumentation. This course serves as a prerequisite for advanced English, Humanities and Literature courses.

EN-101S English Composition I (For Former ESL Students Only) 3-1-3
An introduction to all phases of the writing process, including essay prewriting, composition and revision. Students master the skills needed for effective writing. Essays are written in four rhetorical modes: exposition, description, narration and argumentation. The laboratory hour is included for extra assistance. This course is designed for Former ESL Students who have completed their ESL coursework. This course serves as a prerequisite for advanced English, Humanities and Literature courses.

ENG-102 English Composition II 3-0-3
A continuation of the study and application of the principles of organization and rhetoric introduced in English Composition I for more advanced essay writings of exposition and argumentation and well-developed and properly cited academic research papers. Prerequisite: ENG-100, EN-101S, or ENG-101

ENG-202 Technical Writing and Presentation 3-0-3
A study of techniques needed for writing in scientific and technical disciplines. Students learn to use written forms common in the workplace: technical reports, laboratory reports, letters, memos, and billing and repair summaries. Instruction is also given in the preparation of outlines and proposals. Students make oral presentations on aspects of technical research projects and other written assignments. Prerequisite: ENG-100, EN-101S, or ENG-101

HUM-101 Introduction to Communication 3-0-3
A course designed to improve communication skills, verbal and written, through the study of intra- and inter-personal relationships, ethics (personal and social), compatibility, conflict resolution and the technique of effective listening. Students will demonstrate a greater ability to communicate in the social and business worlds by appreciating the important difference between hearing and listening. By improving their attention span they will become better communicators and thereby achieve understanding. This course is not available to ESL students who have not completed their ESL courses.

HUM-107 World Religions 3-0-3
An interdisciplinary survey of world religions: an examination of their impact on the social, philosophical, and political development of non-Western and Western Civilization. Prerequisite: ENG-100, EN-101S, or ENG-101
HUM-110 Speech 3-0-3
A course in speech techniques including an understanding of four speaking styles: extemporaneous, impromptu, manuscript and memorized. Thrust of course is application of text principles to rigorous work on content planning and presentation techniques for extemporaneous speaking.

HUM-199 Speech 3-0-3
A course in speech techniques including an understanding of four speaking styles: extemporaneous, impromptu, manuscript and memorized. Thrust of course is application of text principles to rigorous work on content planning and presentation techniques for extemporaneous speaking. *(For ESL students only, this course can be substituted by GOV-101, HIS-103 or HIS-104. This course is equivalent to HUM-110 for students who transfer from another major.)*

HUM-111 Critical Thinking 3-0-3
A course designed to improve problem-solving and decision-making skills. Through the study of fallacies, simple syllogisms, and evaluative methods (especially those used in scientific experimentation), students increase their reasoning powers and strengthen their overall concept of the scientific method and its application to general and technical problems. *Prerequisite: ENG-100, EN-101S, or ENG-101*

HUM-204 Spanish Culture and Civilization 3-0-3
An examination of the origins of Spanish culture, starting with the Middle Ages, tracing its development through the Renaissance and Golden Age, the colonization of the New World, and its role in world history. *Prerequisite: ENG-100, EN-101S, or ENG-101*

LIT-201 Introduction to Literature 3-0-3
A survey of literature based on readings in fiction, poetry, drama, and the literary essay. Writers of different eras are included. Students learn how to analyze and interpret outstanding literary works, to appreciate different genres and individual styles, and to respond to literature with greater aesthetic sensitivity.

LIT-203 Introduction to American Literature 3-0-3
An examination is made of the great American writers, beginning with the philosophic works of Emerson and Thoreau, through the fiction of Melville and Hawthorne, and ending with a study of the cross-cultural selection of authors that includes Fitzgerald, Hemingway, Hurston, Wharton and James Baldwin.

LIT-207 Introduction to Poetry 3-0-3
A survey of poetry through the ages with emphasis on the modern period. Lyric, narrative, and dramatic poetry are studied. Students learn how poets choose and arrange words, use rhythm and sound, express sense experience in images, create figures of speech, employ symbols and myths, and establish a distinctive personal voice in their work. Assignments include paraphrasing, analyzing, and comparing poems.
### NATURAL SCIENCES

**BIO-101 General Biology 3-1-3**
An introductory biology course examining the fundamental concepts of human structure and function. The course is an exploration of the principles common to all living systems and the interrelationships between humans and the rest of the world.

**BIO-109 Human Anatomy and Physiology 3-2-4**
This course uses laboratory experiments, multimedia computer projections and demonstrations of anatomical models to study chemistry; body fluids; the structure and function of cells; and genetics. Students will study human macroscopic anatomy and physiology of the different systems of the human body. The laboratory component will include study of the microscopic areas of cytology and histology; identification of anatomical structures in models; and artificial reproduction of physiological processes.

**BIO-111 Anatomy and Physiology 3-2-4**
This course uses laboratory experiments, multimedia computer projections and demonstrations of anatomical models to study chemistry; body fluids; the structure and function of cells; and genetics. Students will study human macroscopic anatomy and physiology of the different systems of the human body. The laboratory component will include study of the microscopic areas of cytology and histology; identification of anatomical structures in models; and artificial reproduction of physiological processes.

**PHY-101 Introductory Physics 3-0-3**
This course is an algebra-based examination of the standard topics in classical physics. Students investigate the theory of motion, the laws of conservation of energy, thermodynamics, electricity and magnetism.

**PHY-102 Physics I 3-2-4**
This course is an introduction to classical mechanics. Space and time, straight-line kinematics, motion in a plane, forces and equilibrium, Newton’s laws, particle dynamics, universal gravitation and conservation laws are discussed. This course includes a laboratory component in which students perform selected experiments related to their theoretical studies.

**PHY-201 Physics II 3-2-4**
Students cover concepts in sound, heat, electric charges, electrostatics and the atomic structure of matter. The electric field, potential electrostatic energy, magnetic fields, electromagnetic waves and Maxwell’s equations are discussed. This course includes a laboratory component in which students perform selected experiments related to their theoretical studies.

### SOCIAL SCIENCES

**ECO-101 Introduction to Economics 3-0-3**
A practical review of the capitalist economic system in relation to the individual firm. Study will include the price system, product markets, resource markets, supply and demand, consumer theory and utility, the government’s role, and monetary policy.

**ECO-111 Principles of Macroeconomics 3-0-3**
An examination of national economic systems and analysis of their performance and policies, with emphasis on the U.S. economy. Topics include the development of national products and trade, aggregate supply and demand, national income and employment, economic fluctuations and growth rates, comparative economic growth and stability, financial systems and banking, and fiscal policies.
GOV-111 American Government 3-0-3
A comprehensive study of American government from its inception during the colonial era to the modern day. The Presidency, Congress, and the Judiciary will be examined. Included as well are political parties, civil rights, civil liberties, elections, political parties, the Constitution, federalism, domestic and policy. Students who complete GOV-101 may not take GOV-111.

HIS-105 World History Until 1500 3-0-3
A comparative survey of the forces and events that have shaped the world from the earliest civilizations until 1500: ancient Mesopotamia, China, India, Greece, Rome, Africa; the advent of Judaism, Christianity, and Islam, new learning and secularism, the Renaissance, and the Age of Exploration.

HIS-106 World History Since 1500 3-0-3
A historical examination of people and events that have shaped the world from the 16th century to the present day. Emphasis will be placed on comparing the world’s civilizations from early European colonialism to present day globalization. The course is designed to provide students with an understanding of political, social, economic, technological, and cultural developments of the past 500 years.

HIS-113 United States History I: to 1877 3-0-3
A history of the United States from colonial beginnings through the Civil War. Themes include the development of American institutions, the achievement of independence, westward expansion, and the emergence of sectionalism prior to the Civil War period. The course is designed to provide a background in the early history of the United States. Theoretical issues in the study of the past will also be addressed. Students who complete HIS-103 may not enroll in HIS-113.

HIS-114 United States History II: 1877 to the Present 3-0-3
A history of the United States from the Civil War until the present. Events that will be examined are: the development of political, social and economic institutions, the development of American foreign policy, immigration, the progressive era, American involvement in both WWI and WWII, the Depression, the New Deal Era, the Cold War, the Kennedy administration and beyond. This course is designed to provide a background into the modern history of the United States. Theoretical issues in the study of the past will also be addressed. Students who complete HIS-104 may not enroll in HIS-114.

HIS-210 Special Topics in History 3-0-3
An introduction to selected topics that provide historical background to current events or academic study in other disciplines. Course content will vary accordingly. See the Division of Arts and Sciences for details and availability.

PSY-101 Introduction to Psychology 3-0-3
A focus on the psychological processes that influence behavior. Topics for discussion include hierarchy of needs, motivational skills, perception and sensation, personality development and problem-solving techniques.

SOC-101 General Sociology 3-0-3
This course develops an understanding of socialization, group dynamics, and stratification with an emphasis on family, culture, education, and religion. The role of how social institutions influence the decision-making process is also explored. Trends in population and urbanization, social groups, racial and ethnic inequalities, and the analysis of technology, social movements, and environmental issues are also detailed.
MATHEMATICS & TECHNOLOGY

CMP-101 Introduction to Computers 3-0-3
A broad survey intended to provide students with an introduction to computer concepts, uses and problem-solving techniques. The topics covered in this course include an introduction to operating systems, word processing, spreadsheets, the Internet and electronic mail. This course is hands-on and students work on projects approved by the instructor. No previous knowledge of computers is required.

MAT-091 Pre-algebra 4-0-0
This course introduces and reviews basic mathematical concepts necessary for College Algebra. It contains an overview of the basic operations of natural numbers, integers, fractional numbers, units of measurement, basic geometry, decimal place values, and exponents.

MAT-111 College Mathematics 5-0-3
The course content is the same as MAT-112 but offers additional contact hours.

MAT-112 College Mathematics 3-0-3
This course is a comprehensive study of mathematics. It presents basic skills in college mathematics, algebra, geometry, trigonometry, and statistics are emphasized. The objective of the course is to develop quantitative analysis.

MAT-115 Algebra and Trigonometry I 6-0-3
The course content is the same as MAT-120 but offers additional contact hours.

MAT-120 Algebra and Trigonometry I 3-0-3
An introduction to College Algebra using first and second-degree equations, beginning with algebraic expressions, linear equations, graphing and determinants with systems of equations, including the quadratic equation. Trigonometry is then introduced with the concepts of angles, radian measurement, trigonometric functions and the laws of sines and cosines, as used with right and oblique triangles.

MAT-130 Algebra and Trigonometry II 3-0-3
A follow-up course to Algebra and Trigonometry I with a continuation on vectors and complex numbers, graphing trigonometric functions, and its formulas and identities. The course then proceeds to exponential, radical and logarithmic functions, continuing on to sequences and series until finally ending with conic shapes and analytic geometry.
Prerequisite: MAT-120 or MAT-115

MAT-135 College Algebra and Trigonometry 6-0-4
The course content is the same as MAT-140 but offers additional contact hours.

MAT-140 College Algebra and Trigonometry 4-0-4
An introduction to basic scientific mathematical techniques. Study focuses on the basic concepts of college algebra and trigonometry, especially in their applications to science and technology. Complex numbers and logarithms are covered and Boolean algebra is introduced.

MAT-210 Analytical Geometry and Calculus 4-0-4
An introduction to calculus. Study focuses on the basic concepts of analytic geometry and calculus. Differential and integral calculus are covered with their applications to science and technology.
Prerequisite: MAT-140 or MAT-135

MAT-212 Statistics 3-0-3
In this course students will study the following topics: measures of central tendency including mean, median and mode, measures of variations including Chebychev’s Theorem, measures of positions, statistical graphs such as pie charts, bar charts, pareto charts, etc., binomial and normal distributions and probability theory.
ENGLISH AS A SECOND LANGUAGE (ESL) DEPARTMENT

ESL Placement

A student’s placement in the first semester is dependent on the scores received on TCI’s placement examination given by the Office of Credentials Verification and Assessment. A student speaking English as a Second Language may be placed into one of three different levels depending on the student’s ability to speak, read and write the English language.

ESL courses must be completed before credit-bearing English, Arts and Sciences and Humanities coursework is undertaken unless prior approval is received from the office of the Dean of Arts and Sciences, with the following exceptions. Students may enroll in GOV-101 or HIS-103 or HIS-104 as outlined in the ESL sequencing schedules below. Students in second-level ESL coursework may enroll in ART-111 or ART-112 concurrently with ESL courses. Students in third-level ESL coursework may enroll in ART-111, ART-112, or HUM-204 (with the Dean’s approval) concurrently with ESL courses. Typically, all ESL courses are completed during or before the fourth semester of study.

Since ESL course work addresses individual language skills in writing, speaking, listening, vocabulary and grammar, the progress of students through the ESL sequence may vary. Specific courses may be waived at the discretion of the ESL evaluator, chairperson or the divisional dean if a student’s ability to pursue the major program requirements is not affected.

ESL courses are non-credit-bearing and are graded on a Pass/Fail basis. Final exams, which may be graded by a panel of instructors, determine whether the student will be promoted to the next level.

PROGRAM GOALS AND OBJECTIVES

Goals of the ESL program:

• To provide opportunities for students to improve their mastery of English through immersion in an English-only environment.

• To provide students with substantial vocabulary proficiency to enhance their speaking, listening, reading and writing skills in preparation for academic success in entry level credit-bearing courses.

• To provide instruction designed at various levels of English proficiency: high beginner, intermediate, and advanced.

• To provide students with interactive educational software programs to supplement and reinforce classroom work.

• To assess students’ development of English language skills for promotion to the next level of proficiency required for academic success.

• To support ESL students with academic assistance in their credit-bearing courses with workshops and supplemental hours in English, government, history, and speech.

• To acclimate students to American society and culture for their long-term personal, social, and economic success.
Objectives of the ESL program:

Students who successfully complete the ESL Program will be able to:

- Demonstrate an entry college level of academic reading and writing skills.
- Demonstrate competent listening comprehension, note-taking ability, and oral presentation skills.
- Utilize critical thinking skills to interpret and make inferences based on the analysis of academic readings, graphs, charts, and lectures.
- Establish and maintain a clear focus in oral and written communication.
- Create and use appropriate structure and style in oral and written communication.
- Prepare and present appropriate content in oral and written communication.
- Organize and apply information effectively to solve problems and draw logical conclusions.
- Demonstrate an understanding of art, literature, or culture of a particular region or period.
- Demonstrate a basic knowledge of U.S. history and understanding of American culture.

ESL Sequencing

Students Testing Into Level I

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course(s)</th>
<th>Hours/Credits</th>
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<tbody>
<tr>
<td>First Semester</td>
<td>GR-011 OC-011 RV-011 WR-011 Program courses</td>
<td>3 hours 3 hours 3 hours 3 hours 3-6 credits</td>
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<tr>
<td>Second Semester</td>
<td>OC-021 RV-021 WR-021 Program courses*</td>
<td>3 hours 3 hours 5 hours 3 or more credits</td>
</tr>
<tr>
<td>Third Semester</td>
<td>ESL-031 Program courses*</td>
<td>3 hours 9 or more credits</td>
</tr>
</tbody>
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* Level I ESL Students who have an Arts & Sciences Elective (ASE-###) or Speech (HUM-199) in their degree program are eligible to take GOV-101 American Government (ESL Students) or HIS-103 United States History I: to 1877 (ESL Students) or HIS-104 United States History II: 1877 to the Present (ESL Students) in their Second Semester to meet these curriculum requirements. ESL Students who complete GOV-101 may not enroll in GOV-111, those who complete HIS-103 may not enroll in HIS-113, and those who complete HIS-104 may not enroll in HIS-114.

Students Testing Into Level II

<table>
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<th>Semester</th>
<th>Course(s)</th>
<th>Hours/Credits</th>
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<tbody>
<tr>
<td>First Semester</td>
<td>GR-022 OC-022 RV-022 WR-022 Program courses</td>
<td>3 hours 3 hours 3 hours 3 hours 3-6 credits</td>
</tr>
<tr>
<td>Second Semester</td>
<td>GR-032 RV-032 WR-032 Program courses**</td>
<td>3 hours 3 hours 3 hours 3 or more credits</td>
</tr>
<tr>
<td>Third and Subsequent Semesters</td>
<td>Program courses**</td>
<td>12 or more credits</td>
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** Level II ESL Students who have an Arts & Sciences Elective (ASE-###) or Speech (HUM-199) in their degree program are eligible to take GOV-101 American Government (ESL Students) or HIS-103 United States History I: to 1877 (ESL Students) or HIS-104 United States History II: 1877 to the Present (ESL Students) in their Second Semester to meet these curriculum requirements. ESL Students who complete GOV-101 may not enroll in GOV-111, those who complete HIS-103 may not enroll in HIS-113, and those who complete HIS-104 may not enroll in HIS-114.
Students Testing Into Level III

First Semester

<table>
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<tr>
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<td>GR-033</td>
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<tr>
<td>RV-033</td>
<td>3 hours</td>
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<tr>
<td>WR-033</td>
<td>3 hours</td>
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Second and Subsequent Semesters

<table>
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<td>12 or more credits</td>
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</table>

*** Level III ESL Students who have an Arts & Sciences Elective (ASE-###) or Speech (HUM-199) in their degree program are eligible to take GOV-101 American Government (ESL Students) or HIS-103 United States History I: to 1877 (ESL Students) or HIS-104 United States History II: 1877 to the Present (ESL Students) in their First Semester to meet these curriculum requirements. ESL Students who complete GOV-101 may not enroll in GOV-111, those who complete HIS-103 may not enroll in HIS-113, and those who complete HIS-104 may not enroll in HIS-114.

Please note that federal and state financial aid programs have rules regarding the number of program credits a student must take in order to be considered eligible to participate. Please refer to the “Student Financial Services” section of this catalog for more information.

ENGLISH AS A SECOND LANGUAGE COURSE DESCRIPTIONS

(The numbers to the right of the course designation number and name signify lecture hours, laboratory hours, and credit hours, respectively.)

ENGLISH AS A SECOND LANGUAGE (ESL) DEPARTMENT

LEVEL I

**GR-011 Grammar I** 2-1-0

A fundamental course that emphasizes language structure. Students will learn the form, meaning, and usage of the most frequently used verb tenses, basic word order, development of self-expression, and description.

**OC-011 Basic English Communication** 1-2-0

A course to review and expand aural/oral skills with special emphasis on practical communication as it relates to students’ needs and experiences. The course emphasizes functional language, helping students to communicate effectively in an academic environment. The course also focuses on developing such critical skills as listening, comprehension, pronunciation, and the basics of note taking.

**RV-011 Academic Reading and Vocabulary** 3-0-0

An introductory survey of reading material, including general vocabulary of the work place and technical vocabulary.

**WR-011 Writing I** 2-1-0

An introduction and review of the basics of writing. It emphasizes sentence construction, paragraph structure and organizational skills. This is a hands-on course with an emphasis on student writing. To provide more individualized instruction and extensive practice in the mechanics of writing (i.e., capitalization, spelling, punctuation, etc.), this course includes computer-assisted language programs.
LEVEL II

FSMESL  College Seminar for ESL Students  1-0-1
A presentation of college survival skills, including time management, memory techniques, resource management and strategies for studying and research. Students also learn about services and opportunities at the college, thereby enhancing their chances for success.

GOV-101  American Government (ESL Students)  3-1-3
A comprehensive study of American government from its inception during the colonial era to the modern day. The Presidency, Congress, and the Judiciary will be examined. Included as well are political parties, civil rights, civil liberties, elections, political parties, the Constitution, federalism, domestic and policy. Students who complete GOV-101 may not take GOV-111.

GR-022  Grammar II  2-1-0
An exploration of the more difficult aspects of grammar. Focuses on the differences between abilities, possibilities and recommendations. For new students testing into Level II.

HIS-103  United States History I: to 1877 (ESL Students)  3-1-3
A history of the United States from colonial beginnings through the Civil War. Themes include the development of American institutions, the achievement of independence, westward expansion, and the emergence of sectionalism prior to the Civil War period. The course is designed to provide a background into the early history of the United States. Students who complete HIS-103 may not enroll in HIS-113.

HIS-104  United States History II: 1877 to the Present (ESL Students)  3-1-3
A history of the United States from the Civil War until the present. Events that will be examined are: the development of political, social and economic institutions, the development of American foreign policy, immigration, the progressive era, American involvement in both WWI and WWII, the Depression, the New Deal Era, the Cold War, the Kennedy administration and beyond. This course is designed to provide a background into the modern history of the United States. Students who complete HIS-104 may not enroll in HIS-114.

OC-021  Intermediate English Communication  1-2-0
An intensive course to further expand aural/oral practice to facilitate better communication. It focuses on the improvement of listening and pronunciation skills, and presents an introduction to advanced note taking. The content emphasizes academic topics and the language used in business and technical settings. Prerequisite: OC-011
For direct placement: Student must take OC-022.

OC-022  Intermediate English Communication  1-2-0
An intensive course to further expand aural/oral practice to facilitate better communication. It focuses on the improvement of listening and pronunciation skills, and presents an introduction to advanced note taking. The content emphasizes academic topics and the language used in business and technical settings. For new students testing into Level II.

RV-021  Academic Reading and Vocabulary II  3-0-0
A focus on reading material at an intermediate level of difficulty, with particular concentration on English used for specific purposes. Prerequisite: RV-011
For direct placement: Student must take RV-022.
ESL-031 Advanced ESL                       2-1-0
An ESL integrated class combining language learning skills for high-level academic reading and writing. Coursework will also focus on advanced listening comprehension and oral presentation.  
For new students testing into Level 1 and have successfully completed Level 2.

WR-021 Intermediate Writing and Structure 5-0-0
An intermediate course that emphasizes the skills needed for successful college writing. The course focuses on pragmatic writing with the use of transitions for fluency. Structure is reviewed as it relates to successful writing.  
Prerequisites: GR-011 and WR-011

WR-022 Writing II                          2-1-0
An intermediate course that emphasizes composition skills needed for writing essays and letters. Focuses on descriptive writing with the use of transitions for fluency. Grammar is reviewed as it relates to successful writing. To provide more individualized instruction and extensive practice in the mechanics of writing (i.e., capitalization, spelling, punctuation, etc.), this course includes computer-assisted language programs.  
For new students testing into Level II.

LEVEL III

RV-022 Academic Reading and Vocabulary II 3-0-0
A focus on reading material at an intermediate level of difficulty, with particular concentration on English used for specific purposes.

For new students testing into Level II.

GR-032 Grammar III                         2-1-0
An emphasis on advanced elements of grammar. It serves as a transitional course in preparation for the academic courses to follow.  
Prerequisite: GR-022

For direct placement: Student must take GR-033.

GR-033 Grammar III                         2-1-0
An emphasis on advanced elements of grammar. It serves as a transitional course in preparation for the academic courses to follow.  
Prerequisite: WR-022

For direct placement: Student must take WR-033.

RV-032 Academic Reading and Vocabulary III 3-0-0
A discussion of authentic and unabridged academically oriented material. It emphasizes high-level reading comprehension skills, critical thinking, and academic and technical vocabulary.  
Prerequisite: RV-022

For direct placement: Student must take RV-033.

WR-033 Academic Reading and Vocabulary III 3-0-0
A discussion of authentic and unabridged academically oriented material. It emphasizes high-level reading comprehension skills, critical thinking, and academic and technical vocabulary.  
For new students testing into Level III.

WR-032 Writing III                          2-1-0
An advanced course in which students produce cohesive and grammatically sound essays, and identify and correct errors in their own writing and that of others. Emphasis will be on the development of skill that will enable students to write clearly and correctly, using standard English.

Prerequisite: WR-022

For direct placement: Student must take WR-033.

WR-033 Writing III                          2-1-0
An advanced course in which students produce cohesive and grammatically sound essays, and identify and correct errors in their own writing and that of others. Emphasis will be on the development of skill that will enable students to write clearly and correctly, using standard English.

For new students testing into Level III.
CEP-101  A+ Certification Exam
Preparation
For those entering the IT profession, the A+ Certification is one of the industry’s most
widely recognized and credible certifications. Earning an A+ certification validates the
technical and customer skills that are needed by today’s IT professionals. *This is a non-credit-
bearing class.*
Prerequisites: CPN-231 and CPN-232 or CPN-231 and CPN-240

CEP-110  N+ Certification Exam
Preparation
Earning the Network+ certification demonstrates that the candidate possesses the
knowledge needed to configure and troubleshoot networks. This exam covers a wide
range of vendor and product-neutral networking technologies and can also serve as a prerequisite
for other vendor-specific IT certifications. *This is a non-credit-bearing class.*
Prerequisite: CPN-112

CEP-120  Certified Electronic
Technician License
Preparation
This course prepares students for taking a certifying examination developed by the
Electronic Technician’s Association. Topics include: mathematics; electrical properties;
series and parallel circuits; oscillators, detectors, comparators, and demodulators; test
equipment and measurement; electronic components; semiconductors; digital concepts;
computer basics; communications electronics; safety precautions and checks; television and
video; antennas and signal distribution; consumer electronics; and block diagrams and troubleshooting. *This is a non-credit-bearing class.*
Prerequisite: ECS-221 or EET-211

CEP-130  CBCS Exam Preparation
This class serves as a review for students preparing to take the Certified Billing and Coding Specialist exam administered by the National Healthcare Association. Receiving CBCS certification validates acquired skills and assists students in achieving their career goals. *This is a four-week (2 hours per week) non-credit-bearing class.*
Corequisite: HIT-216

CEP-140  ABO Certification
Exam Preparation
This course prepares students for the National Opticianry Competency Examination. The NOCE is a requirement for licensure in New York State. *This is a non-credit-bearing course open to TCI students only.*
Corequisite: OPT-121

CEP-155  NCLE Certification
Exam Preparation
This course prepares students for the Contact Lens Registry Exam. The CLRE is a requirement for contact lens certification following licensure in New York State. *This is a non-credit-bearing class open to TCI students only.*
Corequisite: OPT-216

CEP-160  Ophthalmic Dispensing
License Preparation
This course prepares students for practical examinations required for licensure and certification in New York State. *This is a non-credit-bearing class open to TCI students only.*
Corequisite: OPT-228

CEP-170  Certified Bookkeeper
Exam Preparation
This class serves as a final review for students preparing to sit for the certified bookkeeper exam. Topics to be covered include adjusting entries, error correction, payroll, depreciation under GAAP and federal income tax, inventory, and internal controls and fraud prevention. *This is a four-week non-credit-bearing class.*
Prerequisites: ACC-101, ACC-102, and ACC-201
Career Seminars (JOB-100, JOB-200, and JOB-300)

Career Seminars is a series of three sequential job-readiness seminars for matriculating students and graduates to prepare them to enter the workforce. These seminars provide industry-specific insight, training, and professional development necessary to gain a competitive edge in today’s challenging job market. JOB-100 (Finding the Right Job) presents: Introduction to Career Services, Seminar Expectations, Internship/Volunteer Discussion, Job Search Strategies, and Dressing for Success. JOB-200 (Getting the Right Job) continues with: Resume Writing, Writing Cover Letters and Thank You Letters/Notes, and Interviewing Techniques. JOB-300 (Keeping the Right Job) completes the series with: On-the-Job Success, Career Fair Strategies, Employment Trends, and Continuing Education Options. These seminars are presented by the Career Services staff, and completion of these non-credit-bearing classes is required in order to receive additional job placement assistance, such as resume referrals and invitations to Career Fairs.

8-Hour Pre-Assignment Training for Security Guards

This is an 8-hour class required by New York State as the first step in obtaining a security guard registration card from the New York State Department of State. The class provides the student with a general overview of the duties and responsibilities of a security guard. Topics covered in this class include the role of the security guard, legal powers and limitations, emergency situations, communications and public relations, access control, and ethics and conduct. The passing of an examination is required for successful completion of this class.

16-Hour Pre-Assignment Training for Security Guards

This is a 16-hour class that must be completed within 90 days of employment as a security guard. The classes provide the student with detailed information on the duties and responsibilities of a security guard. Topics covered include the role of the security guard, legal powers and limitations, emergency situations, communications and public relations, access control, ethics and conduct, incident command system, and terrorism. The passing of an examination is required for successful completion of this class.
GRADUATION 2015

Commencement
June 23, 2015
Jacob K. Javits Convention Center
Master of Ceremonies: Jay Francisco
Key Note Speaker: Victor M. Rivera
Valedictorian: Wesly M. Farris

Graduates
139 Business and New Media Technologies Graduates
153 Engineering and Information Technologies Graduates
163 Facilities Technologies Graduates
236 Health Sciences and Technologies Graduates
BUSINESS AND LEGAL STUDIES FULL-TIME FACULTY

**Agnello, Michael**
J.D., New York Law School  
B.S., St. John’s University: Marketing

**Bradshaw, Cynthia**
M.S., College for Human Services: Health Administration  
B.S., St. Joseph’s College: Health Administration  
Certification: Gestalt Psychotherapy and Psychoanalysis

**Davis, Cecil**
E.M.B.A., St. Joseph’s College: Business Administration  
M.S., St. Joseph’s College: Management  
B.S., St. Joseph’s College: Organizational Management  
A.O.S., Interboro Institute: Paralegal Studies

**Farkash, Nelly**
B.A., Perm State University: Foreign Language and Literature  
Certification: MOUS Excel

**Gaffney, Judith**
Ph.D., Tabernacle Bible College and Seminary  
B.S., Oral Roberts University: Business Administration  
Certification: Billing and Coding Specialist

**Hernandez, Leticia**
B.S., Laguna College: Education  
B.S., Far Eastern University: Accounting  
Certifications: MOUS Excel, Billing and Coding Specialist

**Ilich, Peter**
Ph.D., The Graduate School and University Center of CUNY: International Relations and World History  
J.D., New York University: International Law  
B.A., City College of CUNY: History

**Johnson, Cyril**
B.B.A., Baruch College of CUNY; Business Administration  
A.O.S., Technical Career Institutes: Air Conditioning, Heating and Refrigeration Technology  
Certifications: ICE Commercial, ICE Light Commercial, ICE Residential  
License: Certified Public Accountant

**Lacsamana, Corazon**
M.S.B.A., Araullo University, Philippines: Marketing  
M.A., Araullo University, Philippines: Psychology  
B.S.C., Araullo University, Philippines: Accounting  
B.S.E., Araullo University, Philippines: Education

**Nearier, Robert**
Ph.D., New Jersey Institute of Technology: Industrial Engineering  
M.S., Polytechnic University: Manufacturing Engineering  
M.B.A., Indiana University: Accounting  
B.A., SUNY at Binghamton: History  
Certification: Certified Public Accountant
FACULTY

BUSINESS AND LEGAL STUDIES TECHNOLOGIES ADJUNCT FACULTY

Carr, Paul
M.A., CUNY Queens College: History
B.S., St. John’s University: Business Management

Chiapa, Leonard
M.S., Lehman College of CUNY: Accounting
B.S., Manhattan College: Accounting and Economics

Dudley, Paulette
6th Year Professional Certificate:
College of Staten Island of CUNY
M.S., Baruch College of CUNY: Business Education
B.S., Baruch College of CUNY: Business Education
Certifications: MOUS Word, Excel, Access

Grinage, David
M.S., New York Institute of Technology
B.S., John Jay College of Criminal Justice

Grunewald, Donald
L.L.M., University of Pennsylvania Law School
B.A., Oxford University: Law
B.A., Haverford College: Economics

Lampidis, Manos
L.L.M., New York University: Trade Regulation and International Legal Studies
J.D., University of Cincinnati
B.A., Ohio State University: History

Lazar, Mel
J.D., NYU School of Law
M.B.A., New York University Graduate School of Business Administration: International Business/Banking
B.S., University of Vermont: Commerce and Economics

McTague, Eugene
M.B.A., Pace University: Accounting and Finance
B.A., Fordham University: English

Millwood, Petal, Esq.
L.L.M., Benjamin Cardozo School of Law
L.L.B., University of Wolver Hampton: Law
M.S., University of the West Indies: Government
B.S., University of Technology
Federal License: Private Practice - Immigration Attorney

Moran, Wilfredo
B.S., Everest University: Accounting
A.A.S, Technical Career Institutes: Accounting
Certification: Tutor by College Reading & Learning Association (CRLA); ABA (Accredited Business Accountant/Advisor); Bookkeeper

Pole, Jessica
M.S., New York University: Business Education
B.S., Norfolk State College: Business Education

Scott, Denise
M.S., Mercy College: School Administration
B.S., Lincoln University: Economics

Singer, Rachel
J.D., American University
B.S., University of Vermont: Political Science
ELECTRONICS ENGINEERING TECHNOLOGY FULL-TIME FACULTY

Maybar, Stephen H.
M.S., New York University: Electrical Engineering  
B.S., City College of CUNY: Electrical Engineering  
E.I.T., New York State: Engineer In Training  
Certifications: CET, CEA

Pariser, Bertram
Ph.D., Columbia University: Electrical Engineering  
M.S., Columbia University: Electrical Engineering  
B.S., Massachusetts Institute of Technology: Electrical Engineering

Meherji, Cyrus
B.S., New York Institute of Technology: Electrical Engineering  
A.A.S., College of Aeronautics: Electrical Engineering

Zornesky, Jerome
M.S., Adelphi University: Physics  
B.E.E., City College of CUNY: Electrical Engineering  
P.E., New York State: Professional Engineering License

Nabatian, Farhad
M.S., Fairleigh Dickinson University: Electrical Engineering  
B.S., West Virginia University: Electrical Engineering

Nabatian, Farhad
M.S., Fairleigh Dickinson University: Electrical Engineering  
B.S., West Virginia University: Electrical Engineering

ELECTRONICS ENGINEERING TECHNOLOGY ADJUNCT FACULTY

Madni, Asad  
Distinguished College Professor  
Member, U.S. National Academy of Engineering  
Adjunct Professor at UCLA

Sc.D. (h.c.), California State University/CSUN  
D.Eng (h.c.), Technical University of Crete  
D.Sc. (h.c.), Ryerson University  
Ph.D., California Coast University  
M.S., University of California, Los Angeles  
B.S., University of California, Los Angeles  
Certifications: CEng, LFIEEE, FIEE, FIET, FAAAAS, FNYAS, FSAE, FIAE, LFAIAA, LFIBA

Arhun, Fatih
M.S., Stevens Institute of Technology: Computer Science  
B.S., Middle East Technical University: Mechanical Engineering

Wysocki, Miroslaw
B.T., New York Institute of Technology  
A.A.S., Technical Career Institutes  
A.O.S., Technical Career Institutes

Lewis, Wilfred
M.S., City College of CUNY: Management Information Systems  
M.S., University of Bombay: Physics  
B.S., University of Mysore: Physics

Younis, Norman
M.S., Brooklyn College of CUNY: Computer and Information Science  
M.S., Polytechnic University of Bucharest: Mechanical Engineering
ENGINEERING FULL-TIME FACULTY

Alam, M. Shah  
Ph.D., North Dakota State University: Physics  
M.S., Marquette University: Physics  
B.S., Dacca University: Physics  
Certification: MCP

Alomar, Qasem  
B.S., New Jersey Institute of Technology: Computer Engineering Technology  
A.A.S., Hudson County Community College: Computer Engineering Technology

Aponte, Alberto  
Ph.D., The City College of The City University of New York: Electrical Engineering  
M.E.E.E., The City College of The City University of New York: Electrical Engineering  
M.Phil., The City College of The City University of New York: Electrical Engineering  
B.E., Universidad de Antioquia Medellin Colombia: Electronics Engineering

Blanco, Hernando  
B.E.E.T., New York Institute of Technology: Electrical Engineering  
A.A.S., Technical Career Institutes: Electronics Engineering Technology  
A.O.S., Technical Career Institutes: Electronic Systems  
Certifications: CET, A+, CST

Bustamante, Miguel A.  
Ph.D., CUNY Graduate Center: Electrical Engineering  
M.Phil., CUNY Graduate Center: Engineering  
M.E.E.E., City College of CUNY: Systems Engineering  
B.E.E.E., City College of CUNY: Electrical Engineering  
Certification: MCP-2000

Cabrera, Francisco J.  
Certifications: ASE Certified in Brakes, Front End Suspension, Electrical Engine Repair, Engine Performance, and Collision Repair; Certified in Electrical and Mechanical Repair

DeFreitas, Rudolph  
B.S., New York Institute of Technology: Electrical Engineering  
A.A.S., College of Aeronautics: Electronics Certification: MCP-2000

Fennell, Thomas  
M.S., New York University: Electrical Engineering  
B.S., Manhattan College: Electrical Engineering  
P.E., New York

Ferber, Michael  
B.S., New York Institute of Technology: Electrical Engineering Technology  
A.A.S., College of Aeronautics: Electronics Certification: MCP-2000

Green, Lawrence  
Certifications: APEX Technical Institute, Automotive Service and Repair  
Certifications: ASE Certification

Ho, Yuqin  
M.S., Polytechnic University: Electrical Engineering  
B.S., New York Institute of Technology: Electrical Engineering  
Certifications: C.N.A., CFOI, N+

Jaipersaud, Bissoondial  
B.S., New York Institute of Technology: Electrical Engineering  
A.A.S., Technical Career Institutes: Electronics Engineering Technology  
A.O.S., Technical Career Institutes: Electronic Circuits and Systems  
Certification: A+ and N+

Kolenovic, Safet  
B.A., Montenegro College (Europe): Public Relations  
A.A.S., Rockland Community College: Automotive Technology
**FACULTY**

**Lau, Roy**  
M.S.N.E., Polytechnic University: Nuclear Engineering  
M.S.M., Polytechnic University: Management  
M.S.E.E., Polytechnic University: Power  
B.S.E.E., Polytechnic University: Electrical Engineering  
P.E., New York  
Senior Member of IEEE  

**Morales, Humberto**  
M.S., Long Island University: Computer Science  
B.E.E., SUNY at Stony Brook  
Certifications: MCP, MCP+I, MCSE, CCNA, CNA, MCDBA

**Oscar, Marcello**  
B.S., Marquette University: Biomedical Engineering  
A.O.S., Technical Career Institutes: Electronics Circuits and Systems  
Certification: A+

**Zablocki, Vincent**  
A.O.S., Technical Career Institutes: Electronics Technology
**FACULTY**

**ENGINEERING ADJUNCT FACULTY**

**Anthony, John**  
B.S., New York Institute of Technology:  
Electro-Mechanical Computer

**Aristy, Alfredo**  
APEX Technical Institute: Automotive Service and Repair  
Licensed Private School Teacher SUNY Education  
Certifications: ASE Certification; OSHA Safety Training; NAPA Training, MACS 609  
Certification: CFC-12/HFC-134a, ASE Refrigerant Recovery & Recycling

**Chan, Gilbert**  
M.S., Polytechnic University:  
Computer Operating Systems  
B.S., Fairleigh Dickinson University:  
Electronic Systems  
A.O.S., Technical Career Institutes: Electronics

**Cheng, Peter**  
M.S., Polytechnic University:  
Electrical Engineering  
B.S., New York Institute of Technology:  
Electrical Engineering

**Deng, Zhanxi**  
M.S., Monroe College: Education  
B.A., Monroe College: Business Administration in Computer Information Systems  
A.O.S., Technical Career Institutes:  
Electronic Telecommunications

**De Sena, John**  
B.S., Baruch College of CUNY: Management  
A.O.S., Technical Career Institutes:  
Electronic Circuits and Systems

**Harry, Davanan**  
B.S., New York Institute of Technology:  
Electro-Mechanical Computer  
A.O.S., Technical Career Institutes:  
Electronic Circuits and Systems

**Kumar, Pradeep G.**  
M.S.C.S., Pace University: Computer Science  
B.A., SUNY at Purchase: Liberal Studies  
B.A., Osmania University: Public Administration

**Laluces, Virgilio**  
B.S., De La Salle University:  
Mechanical Engineering

**Largo, Miriam**  
M.S., City College of CUNY:  
Electrical Engineering  
B.E., City College of CUNY:  
Electrical Engineering  
Certifications: CNA, CCNA, CCNP

**Larrier, Mervyn**  
B.S.C.S.C., City College of New York  
A.A.S.E.T., DeVry Institute of Technology  
Certifications: C++ Programming, Lab View and Lab View Training, PLC Programming, Wayne Kerr/Cimtek C Programming

**Meyers, Warren**  
M.S., Polytechnic University: Management  
M.S., Polytechnic University: Telecommunications  
M.S., Polytechnic University: Transportation Engineering  
Certification: Stevens Institute of Technology: Project Management

**Pregnon, Theo**  
M.S.E.E., New York Institute of Technology:  
Electrical Engineering  
B.S.E.E., New York Institute of Technology:  
Electrical Engineering

**Reyes, Adolfo**  
M.A., New York Institute of Technology:  
Instructional Tech Specialist  
B.S., Antioquia University: Engineering

**Tablante, Rudolfo**  
B.S., Mapua Institute of Technology:  
Mechanical Engineering

**Velasquez, Ruben**  
M.E., City College of CUNY:  
Electrical Engineering

**Yasin, Musab**  
M.S., City College of CUNY:  
Electronics Engineering  
B.S., City College of CUNY:  
Electrical Engineering  
Certification: MCSE
FACULTY

FACILITIES TECHNOLOGIES FULL-TIME FACULTY

Brumley, Tom
M.F.A., University of California, San Diego:
Visual Arts, Conceptual Performance/Installation, Film/Video/Sculpture
B.F.A., University of Colorado:
Visual Arts, Photography
Certifications: Construction Project Management, NYU

Chen, Hui
J.D., Touro Law School
L.L.M., Yeshiva University:
M.S., Pace University: Computer Science
B.S., Shanghai Jiaotong University:
Mechanical Engineering
Air Conditioning and Refrigeration Technology
Certificate: Technical Career Institute
Certifications: Sun Microsystems Certified Java Programmer, Oracle Certified Professional

Correa, Peter
A.O.S., Technical Career Institutes:
Air Conditioning, Heating and Refrigeration Technology
Certifications: ICE Residential, ICE Commercial, ICE Light Commercial

Denson, Robert, SMA
B.A., College of New Rochelle: Psychology
A.A.S., New York City Technical College: Mechanical Technology
Certifications: SMA, SMT, ICE Commercial, ICE Light Commercial
OSHA Certified Instructor: General Industry, Fire Fighting, Controls

Forte, Frederick
M.B.A., Nyack College: Management and Human Resource
B.A., Nyack College
A.O.S., Technical Career Institutes:
Air Conditioning, Heating and Refrigeration Technology
Certifications: ICE Commercial, ICE Light Commercial

Gerolamo, John
A.A.S., New York City Community College, VOORHEES Campus: HVAC Design

Maneshi-Pour, Mohammed
M.S., Polytechnic University:
Mechanical Engineering
B.S., Pahlavi University:
Mechanical Engineering
A.O.A., Carnegie Mellon University: CAD.D

Mehra, Nito K.
B.S.E., LaSalle University
A.O.S., Technical Career Institutes: Heating, Ventilation, Air Conditioning and Refrigeration Technology
Certifications: CPE, RSOE, ICE Commercial, ICE Light Commercial
OSHA Certified Instructor: General Industry, Fire Fighting, Controls

Mortimer, Clarel
M.S.E.E., Polytechnic University:
Electrical Engineering
B.S.E.E., Polytechnic University:
Electrical Engineering
Massachusetts Institutes of Technology Summer 2009, Solar Energy: Capturing the Sun (Certificate)
Certification: Section 608 of Environmental Protection Agency
**FACULTY**

**Ramnarine, Meraj**  
M.S., New York Institutes of Technology  
B.S., Ferris State University: Organizational Management  
A.A.S., New York City Technical College: Environmental Control Technology  
Certifications: ICE Residential, ICE Commercial, ICE Light Commercial  
NATE Certified in: AC Service, AC Installation

**Alexander, Lennox**  
B.S., Nyack College: Organizational Management  
A.A.S., New York City Technical College: Environmental Control Technology  
Certifications: RSOE, ICE Commercial, ICE Residential, ICE Light Commercial  
NYC Fire Department Certificates of Fitness: Low pressure oil burner supervision; Sprinkler Systems; Stand Pipe System Supervision: Refrigeration (RMO: NYC) Operator's Engineering License  
NATE certification: Air Conditioning & Heat Pumps  
ICE certification

**Asrafali, Hasnally**  
B.S., Cranfield Institute of Technology: Agricultural Machinery Engineering  
A.O.S., Technical Career Institutes: Air Conditioning, Heating and Refrigeration Technology  
Certifications: Cooling Towers Maintenance (RSOE), ICE Residential, EPA 608 Certification, FDNY: Low Pressure Boilers, Refrigeration Machine Operator (RMO)

**Biviano, Robert**  
B.Arch., Pratt Institute: Architecture  
New York State Licensed Architect  
Certified by NCARB

**Santos, Jorge**  
M.E.M.E., City College of CUNY: Mechanical Engineering  
M.S., Lehman College of CUNY: Computer Science  
B.E.M.E., City College of CUNY: Mechanical Engineering

**Zak, Jerry**  
M.S.M.E., Technical University of Gdansk: Mechanical Engineering  
P.E., New York

**FACILITIES TECHNOLOGIES ADJUNCT FACULTY**

**Castor, Cesar, CPE**  
B.S., Adamson University: Mechanical Engineering  
A.O.S., Technical Career Institutes: Heating, Ventilation, Air Conditioning and Refrigeration Technology  
Certifications: CPE, RSOE, ICE Commercial, ICE Light Commercial, ICE Residential  
NATE Certified in: AC Service, AC Installation  

**Diaz, Arturo**  
M.S., Central East University: Civil Engineering  
FDNY Certifications: P-16 Low Pressure Boiler, W12 Sprinkler Systems, Standpipe Roof Pump

**Dicent, Jose**  
B.S., Universidad Autonoma de Santo Domingo: Electrical Engineering  
A.O.S., Technical Career Institutes: Air Conditioning, Heating and Refrigeration Technology  
Certification: ICE Commercial
**Driker, Alex**  
B.S., Byelorussia Institute of Railway Engineering: Railway Engineering  
A.O.S., Technical Career Institutes: Industrial Electronics Technology

**Fleysher, Leonid**  
M.S., Leningrad Institute of Water Transport Engineering: Mechanical Engineering  
B.S., Radio-Electronic College: Electronic Engineering

**Geambasu, Edward**  

**Kenney, Frank**  
B.S., Empire State College of SUNY: Business Management  
Qualifications: Licensed Master Plumber, Licensed Master Fire Suppression Contractor

**Murat, Jean**  
B.S., Faculte Des Sciences: Electromechanical Engineering  
Certificate of Bilingual Mathematics/Sciences – New York City Department of Education.

**Richardson, Elvet**  
B.A., Nyack College  
M.A., Nyack College  
A.A., Fanshawe College, Refrigeration Engineering Technology  
Certifications: ICE Commercial, ICE Light Commercial, EPA Universal Certification

**Ricigliano, Nicholas**  

**Sanabria, Steve**  
A.O.S., Technical Career Institutes: Heating, Ventilation and Air Conditioning  
Certifications: EPA Refrigerant Recovery Certificate, DEP Air Pollution Control Certification, OSHA 510, EPA Repair Renovation & Painting, W-12 FDNY Sprinkler Certificate of Fitness, P-99 FDNY Low Pressure Boiler Certification

**Siguenza, Jose**  
B.S., New York Institute of Technology: Electrical and Computer Engineering Technology  
A.O.S., Technical Career Institutes: Electronics Computer Technology  
A.O.S., Technical Career Institutes: Heating, Ventilation, Air Conditioning and Refrigeration Technology  
Certifications: Certified Plant Engineer (CPE) from AFE, Certified Engineering Operations Executive (CEOE) from American Hotel & Lodging Education Institute
FACULTY

HEALTH SCIENCES AND TECHNOLOGIES FULL-TIME FACULTY

Bronstein, Irina, LCSW
M.S.W., Fordham University
B.S., Long Island University
Licensed Clinical Social Worker

Buelta, Kenneth
A.A.S., New York City Technical College
License: New York State Ophthalmic Dispenser
Certification: American Board of Opticianry

Clavio, Abelardo
M.D., Saint Louis College of Medicine, Philippines
B.S., Saint Louis College of Medicine, Philippines

Jeshmaridian, Samvel Sergey
Ph.D., Yerevan State University, Armenia: Psychology, Academy of Sciences
Pd.M., (Honoris Causa) European Academy of Social Sciences
B.A., M.A., Yerevan State University of Foreign Languages, Armenia: Pedagogy and Linguistics

Lelis, Noel
M.D., Fatima University Medical Center
B.S., Far Eastern University: Biology
Certification: Billing and Coding Specialist

Lynch, Gloria S.
A.O.S., Interboro Institute
License: New York State Ophthalmic Dispenser
Certification: Master, American Board of Opticianry

Marcello, Francesco
M.D., Albert Szent-Gyorgyi Medical University, Szeged, Hungary

Oksman, Galina
Ph.D., Moscow State University: Physiology
M.S., Tel Aviv University, Tel Aviv, Israel: Neuroscience
B.A., Technion University, Haifa, Israel: Biology

Rosado, Andres
D.A., St. John’s University:
Interdisciplinary Studies
M.A., St. John’s University: World History
B.A., Touro College: Sociology and Anthropology
A.A.S., Touro College: Arts and Sciences

Weinberger, Jayne H.
Ed.D., University of London, Institute of Education: Professional, Vocational and Workplace Learning
M.A., SUNY at Buffalo: Humanities
B.M., SUNY at Fredonia: Music Education
A.A.S., New York City Technical College:
Ophthalmic Dispensing
License: New York State Ophthalmic Dispenser and Contact Lens Practitioner
Certification: American Board of Opticianry, National Contact Lens Examiners
Brady, Dennis
A.A.S., Morrisville State College, New York: Major Biology
A.A.S., Mater Dei: Major Ophthalmic Dispensing
License: NYS Ophthalmic Dispenser
Certification: American Board of Opticianry

Naymagon, Valery
B.A., Leningrad College of Precision Mechanics and Optics
A.O.S., Interboro Institute: Ophthalmic Dispensing
License: NYS Licensed Ophthalmic Dispenser and Contact Lens Practitioner
Certification: American Board of Opticianry, National Contact Lens Examiners

Saha, Anil K.
Ph.D., Calcutta University, India: Neuroscience
M.S., Rajasthan University, India: Zoology
B.S., Calcutta University, India: Zoology

Shired, Udora
M.S., Pace University: Computer Science
B.A., SUNY at Buffalo: English

Thomas, Jr., Mathew
M.D., St. Christopher’s College of Medicine
M.H.S.A., International – St. Joseph’s College of Maine
B.S., SUNY at Stony Brook
Certification: CHC – Health Care Compliance Association (HCCA)

Waxman, Francine
M.S., University of Bridgeport: Human Nutrition
B.A., Boston University: Philosophy & Sociology

Zak, Dorothy
M.A., New School for Social Research, New York, New York: Psychology
B.A., Queens College of the City University of New York: Psychology
FACULTY

DIGITAL MEDIA ARTS FULL-TIME FACULTY

Almoradie, Joel  
B.S., University of the Philippines: Computer Science  
Certification: I-Net+, CIW Associate  

O’Brien-Seeawai, Kim  
B.F.A., Fashion Institute of Technology of SUNY: Graphic Design

Flores, Jaxon  
B.F.A., School of Visual Arts: Plastic Arts  
A.A.S, Technical Career Institutes: Electronics Engineering Technology

DIGITAL MEDIA ARTS ADJUNCT FACULTY

Bharath, Darwin  
M.A., Fashion Institute of Technology  
B.A., Fashion Institute of Technology  
A.A.S., Monroe College: Computer Information

Emmanuel, Guy-Serge  
B.F.A., Brooklyn College of CUNY: Photography

Rosenstein, Hardy  
B.A., Empire State College of SUNY: Photography

Sabio, Francis, Jr.  
M.S., Long Island University: Instructional Technology  
B.A., Cheyney University: Hotel, Restaurant and Institutional Management

Johnson, Carter  
M.Arch. Massachusetts Institute of Technology: Architecture & Public Arts  
B.A. Columbia University: English Literature
ESL, COLLEGE PREPARATORY AND GENERAL EDUCATION
FULL-TIME FACULTY

Ariot, Tagor
M.A., American Graduate School for International Relations and Diplomacy, Paris, France: International Relations
B.A., Hamilton College: History

Arisa, Miguel
M.A., Hunter College of CUNY: Art History
M.A., New York University: Spanish and Latin American Literature
B.A., University of Puerto Rico: English Literature

Baxter, Alan
M.A., American University: English
B.A., The College of William and Mary: English and Philosophy

Boutilier, Patricia
M.A.T., New York University: English
B.A., Bennington College: Language and Literature

Bradley, Brad
M.A., SUNY at Stony Brook: Literature
B.A., University of New Hampshire: Speech & Drama

Cohen, Michael
B.A., Queens College of CUNY: English

Gomes, Mark
M.A., Iona College: History
B.A., Dominican College: Social Science
A.S., Bergen Community College: Liberal Arts

Grochowski, Ursula
M.A., New York University: TESOL
M.A., University of the East: Business Administration
B.S., University of Santo Tomas: Math and Science

Hahn, Richard Ari
M.S.W., Hunter College School of Social Work: Social Work
B.A., Hebrew University of Jerusalem: Psychology

Jacobs, Nannette
M.S., City College of CUNY: Bilingual Education
B.M., Drury College: Vocal Performance

Jaramillo, Jaime
B.S., Universidad La Gran Colombia: Math, Physics and Science Education

Kenney, Robert
B.S., Loyola University: Humanities

Kiregian, Elise
M.A., Hunter College of CUNY: TESOL
B.A., Columbia University: English and Russian

Li, Xiao
M.A., Western Kentucky University: English
B.A., Sian Institute of Foreign Languages: English

Mboup, Mamadou
C.A.E.M., Higher Normal School
M.A., Dakar/Senegal University Cheikh Anta Diop: ESL
B.A., Dakar University: ESL
C.S., (Certificate of Specialization), Dakar University: American Literature and Civilization
A.A.S., Technical Career Institutes: Industrial Electronics Technology (Computer Technology Track)

Melendez, Luisa
M.A., New York University: English
B.A., University of Puerto Rico: Social Science

Mills, Richard
M.A., Hunter College of CUNY: English Literature
M.E., Boston University: TESOL
B.A., University of Alberta: English Literature
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FULL-TIME FACULTY

Reyes, Silvio
M.A., City College of New York: Mathematics
M.S., City College of New York: Computer Science
M.E., City College of CUNY: Electrical Engineering
B.S., Universidad del Cauca: Electrical Engineering and Telecommunications
Certifications: CNA, CCNA, N+, MCP-2000, MCSE, MCT, MCSA, MCDBA, Linux+, Sun Solaris

Robles Milone, Miriam
B.A., University of Puerto Rico: English

Toubal, Ali
M.A., Columbia University-Teachers College: TESOL

Wong, Teddy
Ph.D., New York University: Mathematics
M.S., Kansas State University: Mathematics
B.S., Pittsburgh State University: Mathematics

Xu, Ming
M.A., Western Kentucky University: Education
B.A., Shenyang Teachers’ College: English

Zhou, Jiewei
M.A., Hunter College of CUNY: TESOL
B.A., Shanghai Teachers’ University: English
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ADJUNCT FACULTY

Abramowitz, David
M.A., Long Island University: Teaching of English as a Second Language
M.A., Brooklyn College of CUNY: Creative Writing
B.A., City College of New York: English; Language Arts

Agnello, Barbara
M.A., Adelphi University: English
B.A., Adelphi University: English

Allan, Isabel
M.A., Adelphi University: TESOL
M.L.S., Pratt Institute: Library Science
B.A., City College of CUNY: English

Dobbs, Rosa
M.S., Brooklyn College of CUNY: Counseling
B.A., Brooklyn College of CUNY: Sociology

Erves, Jerrold
M.A., Brooklyn College of CUNY: Communications
B.A., City College of CUNY: English

Hoffman, Stanley
M.A., University of Rochester: English and American Literature
B.A., Brooklyn College: English and Philosophy

Jarvis, Peter
M.A., Columbia University
Teachers College: ESL
B.A., Boston University: History

Junger, Elliot
M.A., Columbia University: Comparative Linguistics
B.A., Bard College: Germanic Studies
M.S., Montclair State University: Pure and Applied Mathematics

Lucaciu, Andrea
M.F.A., Columbia University: Theater Arts and Acting
B.A., St. John’s University: Psychology

Nahabedian, Vahan
M.F.A., School of Visual Arts: Fine Arts
B.F.A., William Patterson University: Art

Ng, Kin-Chung
Ph.D., Polytechnic Institute of New York: Mathematics
M.S., Polytechnic Institute of New York: Mathematics
B.S., Cheng Kung University: Mathematics

Norasteh, Pejman
Ph.D., Polytechnic Institute of New York: Mathematics
M.A., Polytechnic Institute of New York: Mathematics
B.S., National Cheng Kung University, Taiwan: Mathematics

Okobi, Patrick
Ph.D., Walden University: Applied Management and Decisions Sciences
M.B.A., The College of Insurance of St. John’s University: Finance/Insurance
M.A., City College of CUNY: Math Education
B.S.M.E., New York Institute of Technology: Aeronautics and Astronautics
Certifications: On-line Instructor and Business Statistics

Pressman, Kenneth
M.A., New York University: English
B.A., Northwestern University: Literature

Prescott, Judith
M.S., Fordham University: Adult Education
B.A., New York University: Philosophy

Richards, Luis
M.S., John Jay College: Public Administration and Criminal Justice
B.S., John Jay College: Criminal Justice
A.S., John Jay College: Criminal Justice

Small-McCarthy, Robin
M.F.A., Syracuse University: Directing and Acting
M.A., Louisiana State University: Educational Drama and Theater
B.S., University of Wisconsin-Madison: Elementary Education
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M.S., Polytechnic University  B.S., Lehman College of CUNY  A.O.S., Technical Career Institutes
Certifications: A+, N+, MCP

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A.O.S., Technical Career Institutes

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B.Sc., University of the West Indies

Assistant to the Provost and Deans
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A.A.S., Technical Career Institutes

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B.S., Houghton College

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M.Ed., University of Houston
B.A., University of Kentucky

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Edward Geambasu

John Seabrook
A.O.S., Technical Career Institutes: Facilities Management Technology (FMT)
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B.A., Vimala College of Calicut University

Library Assistant
_Gessy Day_
A.A.S., Technical Career Institutes
A.A.S., LaGuardia Community College

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_Daniel Marshall_
M.L.S., Queens College of CUNY
M.A., New York University
B.A., College of the Holy Cross

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Director
_Lloyd Cutkelvin_
B.S., New York Institute of Technology
A.A.S., Technical Career Institutes
A.O.S., Technical Career Institutes
A.A.S., Belize Technical College

Marc Neptune
A.A.S., Technical Career Institutes

Belkis Vasquez
B.S., UNAPEC University,
Dominican Republic
A.A.S., Technical Career Institutes

Miroslaw Wysocki
B.T., New York Institute of Technology
A.A.S., Technical Career Institutes
A.O.S., Technical Career Institutes

Full-Time Tutors
_Evlyn Alexander_
A.O.S., Technical Career Institutes

Daniel Gomes
A.A.S., Technical Career Institutes

Wilfredo Moran
B.S., Everest University
A.A.S., Technical Career Institutes
Certifications: ABA Accredited Business Accountant /Advisor

HUMAN RESOURCES AND PAYROLL

Director of Payroll and Human Resources
_Shirley Erves_
A.S., Wayne College

Assistant to the Director of Payroll and Human Resources
_Judy Torres_
B.A., City College, CUNY

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_Susanna Kung_
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B.A., Brandeis University

Research Associate
_Krystal Boodram_
A.A.S., Technical Career Institutes
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  Michael Gall

Senior Associate Vice President of Admissions
  Iveth Zuniga

Director of Marketing
  Janice Dru
    B.A., Princeton University
    A.A., Montgomery County Community College

Director of Admissions
  Ana Santos

Director of Programs
  Oscar Solis
    A.O.S., Interboro Institute

Admissions Office Manager
  Virginia Alicea
    B.A., Fordham University

Admissions Associates and Special Assistant to CEO
  Maribel Benitez

Admissions Representatives
  Grahame Davis
    B.A., SUNY at Fredonia
  Edward Gonzalez
    B.F.A., Hunter College
  Felicia Green-Carter
  Barry Henderson
  Marcia Hinton
  Kent Huang
    A.A.S. Shunde City Television University
  Henry King
    B.S., Morgan State University
    A.O.S., Technical Career Institutes
  William Lewis
  Arnaldo Lopez
    B.A., Boricua College
  Hilda Martinez
    B.A., Touro College
  Ashley Myvette
  Kenneth Quinton
    B.S., City University of New York
  Brian Rivera
    A.A.S., Borough of Manhattan Community College
  Ivan Robinson
  Errol Savoy
    A.A.S., Technical Career Institutes
  Nina Tahaloff
    B.A., Kokand Pedagogical Institute
  Tonya Torres
    A.A.S., Touro College
  Ed Tubens
  Pilar Turbides
    A.A.S., Technical Career Institutes
    A.A.S., Universidad Central del Este
  Alana Turner
  Steve Whyte
    B.S., Syracuse University

Admissions Support Staff
  Sharon Adamson
    A.A.S., Technical Career Institutes
  Carmen Griffin
Director of Career Services

*Jay Robert Francisco*
M.A.S., Fairleigh Dickinson University
B.A., Drew University

Assistant Director of Career Services

*Lisa M. Sita*
M.A., The New School for Social Research
B.A., New York University

Internship Manager

*Catherine Law*
M.B.A., University of Bridgeport
B.A., Queens College

Career Services Specialist

*Vincent J. Gomory*
M.A., The New School for Social Research
B.S., Boston University

Vice President for Student Financial Services

*Cynthia Fekaris*
M.B.A., Ateneo University
A.B.B.A., Maryknoll College

Director of Student Financial Aid

*Albina Khasidova*
B.A., National Economic University, Uzbekistan

Associate Director – Federal Loans Program

*Milagros Cruz*
A.A.S., Technical Career Institutes

Manager – NYS Grant Program

*Christine Chen*
A.A.S., Technical Career Institutes

Student Employment (FWS) and VA Liaison Manager

*Elizabeth Faracco*
B.A., Oral Roberts University

Data Integrity Specialist

*Kristie Davis*
B.P.S., CUNY
A.A.S., Technical Career Institutes

Financial Aid Advisors

*Shawndelle David*
B.A., John Jay

*Darryl Menor*
B.A., New York City Technical College

*Donna Martinez*

*Margie Mattis*

*Manuel Reyes*
A.A.S., Touro College

*Velisa Robinson*
B.P.S., Medgar Evers College of CUNY
A.A.S., Technical Career Institutes

*Iris Rodriguez*
A.A.S., Technical Career Institutes

*Janet Rodriguez*
A.A.S., Technical Career Institutes

*Darrin Rogers*

*Elizabeth Roman*

*Anna Salazar*
B.S., Lehman College

*Kevin Torres*
A.A.S., Technical Career Institutes

*Ella Yakubova*
A.O.S., Bramson Ort College
B.A., University of Technology, Uzbekistan
ACADEMIC ADMINISTRATION AND STUDENT DEVELOPMENT

Dean of Academic Administration and Student Development

Pansy James
B.A., City College of CUNY

Director of Scheduling

Tony Yu
A.A.S. Borough of Manhattan Community College

Evening Coordinator

Barbara Wadolowski
B.B.A., Baruch College of CUNY
B.A., Pedagogical College Institute of Higher Education
A.A.S., Technical Career Institutes
A.O.S., Technical Career Institutes

Student Affairs Counselors

Maria Padavano
B.A., Hunter College of CUNY

Dawn Zhang
M.A., Queens College of CUNY
B.A., Shanghai Finance & Economics College

Student Success Counselors

Anny Garcia
Director of Services for Students with Disabilities
M.S., School Counseling, Mercy College
B.S., John Jay College of CUNY

Walter Jones
B.A., Professional Studies in Human Services, MCNY
A.A.S., Technical Career Institutes

ENROLLMENT SERVICES

REGISTRAR’S OFFICE

Registrar

Rafael Baez
M.S., Lehman College of CUNY
B.A., Lehman College of CUNY
Certifications: A+, N+, MCP, MCSA

Associate Registrar

Leonid Zolotarev
M.A., Brooklyn College of CUNY
B.A., Minsk State University of Linguistics

Assistant Registrar

Effie Floyd
A.A.S., Technical Career Institutes

Assistant Registrar

Gregory Cantey

Data Integrity Specialist

Xilonem Paez
A.A.S., Technical Career Institutes

Data Entry Specialist

Wen Wei Chen
A.A.S., Technical Career Institutes
ADMINISTRATION

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Foreign Document Specialist
  Jessica Castro

Assistant Director of
Credentials Verification
  Tamika Williams

Senior Analyst
  John Osborne
    B.B.A., Baruch College
    A.A.S., Technical Career Institutes

Credentials Clerks
  Carol Gilbert
    B.A., Monroe College

Proctor
  Alexis Febus

ACCOUNTING

Chief Financial Officer
  Thomas Bickart
    M.B.A., Pepperdine University
    B.S., DePaul University

Billings and Purchases Manager
  Lilia Gonzales
    B.S.B.A., University of the Philippines

Finance Manager
  Ellis Waterton-Slowe
    A.A.S., Technical Career Institutes
    A.O.S., Technical Career Institutes

Accounting Clerk
  Michael Chu
    B.B.A., Monroe College
    A.A.S., Technical Career Institutes

Assistant Controller
  Leanna Welch
    B.S., State University of New York - College of Plattsburgh

Refund Analyst
  Yelena Komrakov
    A.O.S., Interboro Institute

FINANCE

STUDENT ACCOUNTS DEPARTMENT

Director of Student Accounts Receivable and the Federal Loan Counseling
  Kim Sukhraj
    A.O.S., Katherine Gibbs

Accounts Receivable Assistant
  Stephine Ashby

Accounts Receivable Assistant
  Loraine Benjamin
    A.A.S., Technical Career Institutes
    Certificate in HRM, New York Restaurant School

Loan Counseling Professional
  Elizabeth Figueroa

Loan Counseling Professional
  Tiffany Franklin
    A.A.S., Technical Career Institutes

Loan Counseling Professional
  Haydee Puell
    A.A.S., Technical Career Institutes

Bursar
  Julia Tejada
    B.S., Universidad Autonoma de Santo Domingo
ADMINISTRATION

INFORMATION, TELECOMMUNICATIONS AND TECHNICAL SUPPORT SERVICES

Chief Information Officer
Felix Pretto
M.S., Polytechnic University
B.S., Lehman College of CUNY
A.O.S., Technical Career Institutes
Certifications: A+, N+, MCP

CampusVue Administrator
Rafael Baez
M.S., Lehman College of CUNY
B.A., Lehman College of CUNY
Certifications: A+, N+, MCP, MCSA

Director of Information Technology
Eric Huang
A.O.S., Technical Career Institutes
Certifications: A+, N+, MCP, CCA Zen App

Assistant Manager – Academic Computing Services
Carlo Hernandez
A.O.S., Technical Career Institutes
Certifications: A+, N+

Helpdesk Manager/Ebooks Coordinator – Academic Computing Services
Juan Galindo
A.A.S., Technical Career Institutes
Certifications: A+, RICOH

System Administrator – Academic Computing Services
Jose Ortiz
A.O.S., Technical Career Institutes
Certification: A+, N+

Blackboard Administrator – Academic Computing Services
Stelios Ioannidis
A.A.S., Technical Career Institutes
Certifications: Course Delivery GUI Administration, Blackboard Learn Server Administration

System Administrator – Administrative Computing (Datacenter)
Carlo Hernandez
A.O.S., Technical Career Institutes
Certifications: A+, N+

Network/Exchange Administrator – Administrative Computing (Datacenter)
Jose Naula
A.O.S., Technical Career Institutes
Certifications: A+, N+, MCP, MCSA

Assistant Manager – Academic Computing Services
Jose Ortiz
A.O.S., Technical Career Institutes
Certification: A+, N+

Senior Programmer – Administrative Computing (Programming)
Amil A. Fortuna
M.S., Lehman College of CUNY
B.A., Lehman College of CUNY
Certifications: A+, N+, MCP

Network and Telephony Manager – Academic Computing Services
Kevin Castor
A.O.S., Technical Career Institutes
Certification: A+, N+

Programmer – Administrative Computing (Programming)
Irina Farkash
B.A., Columbia University, Barnard College

PC and Electronics Technician – Academic Computing Services
Wanda Silverman
A.O.S., Technical Career Institutes
FACILITIES

Manager
James Michael Allen  
A.O.S., Technical Career Institutes  
Certifications: G35 Air Compressor, W12 Sprinkler Systems, P99 Low PSI Oil Burner, Z00 Sprinkler/Standpipe, F00 Fire Guard, OSHA

Maintenance Employees
Claude Jean Baptiste
Victor Caban
John Cercado  
A.O.S., Technical Career Institutes  
Certifications: EPA, Air Pollution, DEP, OSHA
Elias Navia
Rigoberto Sanchez
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A.O.S., Technical Career Institutes
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Mailroom Manager
Johnny Roa
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Johana Perez
TCI College, Business Student

Altonio Reed
Storage Consultant

Paralegal

Stephanie Adames
Donohue Law Firm

Nadia Chanza
The Office of the Bronx County District Attorney

Johana Perez
TCI College, Business Student

J. Harlan Wrenn
Business Development Manager
Elecute USA, LLC

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Nusbaum, Stein, Goldstein, Bronstein & Kron, P.A.

Darshan I. Patel, Esq.
Partner
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Donohue and Partners, P.C.

Security Management

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Disaster Readiness

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CyberDiligence

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Cornelius Investigations, LLC

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Engineering and Information Technologies

Automotive Technology

Gordon Grange
Account Manager
Snap-on Industrial

Lawrence Green
TCI Automotive Instructor

Jeremy Nieves
TCI Automotive Student

Michael Walker
Market Sales Specialist
Safety-Kleen Systems, Inc

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Joe Zahra
Automotive Educational Specialist
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INDEX

A

Academic Committees ...........................................225
Academic Dismissal .............................................55
Academic Integrity .................................................55
Academic Policy ....................................................54
Academic Warning and Probation .......................54
Academic Programs .............................................79
Academic Records .................................................49
Academic Standards Related to Federal and State Financial Aid ........................................42
Accounting Systems Technology (A.A.S. Degree) .........................85
Accreditation ..................................................114
ADA Grievance Procedures ................................74
Add/Drop Period ..................................................46
Add/Drop/Withdrawal Advising ................................66
Administration ....................................................213
Admission and Academic Placement .................19
Admissions ..........................................................18
Admissions Procedures .......................................18
Advisement ..........................................................48
Aid to Victims of World Trade Center Attack ....34
Air Conditioning and Refrigeration Technology (Certificate) ........................................155
Alumni Association ............................................24
Alumni Grant ..................................................37
American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) ....71
Americorps .......................................................39
Appealing Grades and Other Academic Issues 75
Appeals and Complaints Processes ..................75
Arts and Sciences Adjunct Faculty ....................211
Arts and Sciences Course Descriptions ..............183
Arts and Sciences Full-Time Faculty ................209
Attendance/Punctuality ......................................57
Auditing a Course ..............................................28
Authorizations ..................................................80
Automotive Technology (A.A.S. Degree) ............108

B

Basic Electronics Technology (Certificate) ......121
Billing Tuition to the Students Account ............28
Board Of Directors .............................................221
Books, Tools and Supplies ................................28
Business Administration (A.A.S. Degree) ............87
Business and Legal Studies
Course Descriptions ...........................................100
Business and Legal Studies Adjunct Faculty ....198
Business and Legal Studies Full-Time Faculty ....197

C

Calendar .............................................................7
Campus Visits, Open Houses, Workshops and Special Events .........................19
Career Advisement ............................................64
Career Fairs .......................................................64
Career Services ..................................................63
Certificate Preparation Courses ....................194
Civil and Environmental Technology .............111
Class Hours and Semester Credits ..................46
Clubs and Organizations ...................................69
College Hours ....................................................19
College Preparatory and Supplemented Courses ..................48
College Preparatory Studies
Course Descriptions ...........................................183
Computer Laboratories .....................................16
Computer Software Technology (A.A.S. Degree) ...........113
Cooperative Education and Internship Program ....64
Cooperative Education Courses .......................48
Core Curriculum ...............................................81
Corequisites ....................................................48
Cost of Attendance Budgets .............................28
Counseling .........................................................66
Councils and Committees ..................................222
Credential Verification and Assessment Office ....18
Credit Balance Policy ........................................31
Cultural Organizations ....................................68

D

Dare to Dream/Dare to Repair ..............................67
Dean’s List .........................................................51
Degree Requirements .........................................50
Digital Media Arts Technology (A.A.S. Degree) .........................................178
Disciplinary Procedures ....................................178
Distance Learning ...............................................82
Division of Arts and Sciences .........................176
Division of Business and Legal Studies .............85
INDEX

Division of Engineering and Facilities Technologies ................................................................. 108
Division of Health Sciences and Technologies ................................................................. 162
Division of Health Sciences and Technologies Course Descriptions ...................................... 170
Divisional Scholarships ........................................................................................................... 38
Double Major .......................................................................................................................... 126

E

Educational Expenses ................................................................................................................. 25
Electives .................................................................................................................................... 48
Electronics Engineering Technology (A.A.S. Degree) .............................................................. 115
Electronics Engineering Technology Adjunct Faculty .......................................................... 199
Electronics Engineering Technology Full-Time Faculty .......................................................... 199
Electronics Laboratories ........................................................................................................... 16
Emergencies ............................................................................................................................... 77
Engineering and Information Course Descriptions ..................................................................... 133
Engineering and Information Technologies Adjunct Faculty .................................................. 202
Engineering and Information Technologies Full-Time Faculty ................................................ 200
English as a Second Language Courses .................................................................................... 191
English as a Second Language (ESL) Laboratory ................................................................. 16
ESL Placement and Sequencing ................................................................................................. 189
Evening Attendance .................................................................................................................. 19
Exemptions ................................................................................................................................. 21

F

Facilities Management Technology (A.O.S. Degree) ................................................................. 150
Facilities Management Technology (Certificate) ........................................................................ 152
Facilities Technologies Adjunct Faculty ..................................................................................... 204
Facilities Technologies Course Descriptions ............................................................................. 156
Facilities Technologies Full-Time Faculty ................................................................................. 203
Faculty ....................................................................................................................................... 197
Failing Grades .............................................................................................................................. 50
Federal Academic Progress Requirements .................................................................................. 42
Federal and State Grant Programs .............................................................................................. 33
Federal Direct Parent Loan ........................................................................................................ 41
Federal Direct Subsidized and Unsubsidized Loans .................................................................... 40
Federal Pell Grant Program (Pell) .............................................................................................. 33
Federal Supplemental Educational Opportunity Grants (FSEOG) ................................................ 33
Federal Work-Study Program (FWS) ......................................................................................... 39
Federal Student Aid Programs .................................................................................................... 32
Fees ............................................................................................................................................. 25
FERPA Rights ............................................................................................................................. 52
Fire Drills .................................................................................................................................... 78
Freshmen Grants ........................................................................................................................ 37

G

General Education ..................................................................................................................... 81
George Leelike Scholarship ........................................................................................................ 38
Grade Changes ............................................................................................................................ 50
Grading System ........................................................................................................................... 49
Graduate Grant ........................................................................................................................... 37
Graduation .................................................................................................................................... 58
Graduation With Honors ............................................................................................................. 58
Graduation Rate .......................................................................................................................... 24
Graduation Requirements for Ability to Benefit Students ......................................................... 58

H

Health Information Technology (A.A.S. Degree) ...................................................................... 162
Health Sciences and Technologies Adjunct Faculty ............................................................... 207
Health Sciences and Technologies Full-Time Faculty ............................................................. 206
Heating, Ventilation, Air Conditioning and Refrigeration Technology (A.O.S. Degree) ......... 153
History of TCI .............................................................................................................................. 13
Humanities Courses .................................................................................................................... 183
Human Services (A.A.S. Degree) ............................................................................................... 164

I

Immigration Issues/Assistance for F1 Visas ............................................................. 66
Immunization ............................................................................................................................... 22
Inclement Weather – School Closing Information ..................................................................... 78
Incomplete Grades ....................................................................................................................... 49
Industry Advisory Councils ......................................................................................................... 222
Industrial Electronics Technology – Computer Technology Track (A.O.S. Degree) ............... 118
INDEX

Industrial Electronics Technology –
Electronic Security Systems (A.A.S. Degree)....122
Industrial Electronics Technology –
Railway Electronic Systems (A.A.S. Degree)....124
Information Literacy..............................................82
Institute of Electrical and Electronics
Engineers, Inc. (IEEE).........................................71
Institutional Grants and Scholarships ...............37
Institutional Goals .................................................10
International Applicants.......................................22
International Student Grant (F-1 Status) ...............37

J

Job Placement Assistance ......................................63

L

Laboratories...........................................................16
Late Registration....................................................46
Learning Center.....................................................16
Library ...................................................................17
Location and Facilities...........................................15
Lost and Found ......................................................78

M

Major Changes.......................................................50
Mathematics Department Courses .....................188
Middle States Accreditation .................................14
Miscellaneous Services .......................................77
Mission Statement ................................................10

N

Natural Sciences Courses .................................186
Networking Technology (A.A.S. Degree)............129
New York State Academic Progress Standards ....44
New York State Aid for Part-Time Study
(APTS).................................................................34
New York State TAP for Half-Time Study
(HTAP)..................................................................34
New York State Regents Award for
Children of Deceased or Disabled Veterans .......34
New York State Aid to Native Americans ...........36
New York State Tuition Assistance Program
(TAP)...................................................................33
New York State Vocational Educational Services
for Individuals With Disabilities (ACCESS-VR)....36

No Smoking Policy..................................................72
Non-Discrimination Policy.....................................73
Non-Matriculation Policy.......................................19

O

Office Administration and Support Services
(A.A.S. Degree).......................................................92
Office of Disability Services .................................74
Official and Unofficial Withdrawals.....................31
Ophthalmic Dispensing (A.A.S. Degree).............167
Orientation............................................................20

P

Paralegal Studies (A.A.S. Degree) .........................94
Part-Time Admissions .........................................19
Post 9/11 GI Bill....................................................35
Prerequisites .........................................................48
Presidential Scholars ..........................................51
Presidential Scholar Awards ...............................38
Privacy of Student Records ..................................51
Professional Organizations for Students ............71
Psi Beta.................................................................71

Q

Qualitative Standard:
Grade Point Average (GPA) Chart.....................42
Quantitative Standard:
Completion Rate-Maximum Timeframe ..........42

R

Readmission ........................................................23
Receipt of Degree or Certificate .........................58
Referrals to Substance Abuse Counseling ...........66
Refund Policy.......................................................29
Regents Professional Opportunity Scholarships....36
Registration..........................................................46
Repeated Courses ...............................................43
Residency Requirement for Transfer Students ......22
Résumé Lab..........................................................64
Return of Federal Title IV Aid .........................30
Robotics and Automation Technology
(A.A.S. Degree)....................................................131

229
INDEX

S
Safety, Security and Emergencies .......................77
Satisfactory Academic Progress ..........................54
Schedule Changes ...........................................50
School Closing Information ............................78
Security Report .............................................78
Security Services and Management (A.A.S. Degree) ..........97
Senior Administration Organizational Chart ..........212
Social Sciences Courses ................................186
Sophokles Nakos Memorial Scholarship ................38
Strategic Plan Goals .......................................12
Student Activities ..........................................67
Student Advocacy/Assistance With Personal and Academic Problems 66
Student Affairs and Student Life ......................66
Student Attire ..............................................72
Student Bill of Rights ....................................72
Student Clubs and Organizations .....................69
Student Code of Conduct ...............................72
Student Educational Loan Programs ..................40
Student Financial Assistance ..........................32
Student Financial Services ..............................25
Student Government ....................................67
Student Identification Procedure ....................72
Student Lounge ..........................................17
Student Records ..........................................49
Student Rights Under FERPA ..........................52

T
TAP Standards for Satisfactory Academic Progress ........44
Tau Alpha Pi ..............................................71
TCI Code of Ethics for Computer Software Technology ..........73
TCI Pay-As-You-Study Cash Payment Plan ........39
TCI’s Faculty and Academic Governance ..............82
TCI Veterans Club .....................................70
Transcripts .................................................53
Transfer Credit ..........................................20
Transfer Opportunities ..................................59
Tuition .......................................................25
Tuition And Fees Adjustment Chart .................29

V
Veterans’ Benefits .....................................35
Vocational Rehabilitation (Chapter 31) ..................35

W
Waiver of 2.0 “C” Average Standard ..................45
Waiver of Pursuit and Progress Standards .................45
Withdrawal ...............................................51