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Variable Speed Pumps          Filters                    Heaters             Colored Lighting          Automation               Sanitizers            Automatic Pool Cleaners
Welcome to the Genesis 3 University

Genesis 3, Inc. does three things. It educates, certifies, and connects watershape professionals through coursework, projects, examination, and continuing education. The connections are not only with like-minded professionals within the Genesis family, but also with our network of sponsors and affiliations with other leading organizations such as the ACI, AIA, ASA, ASLA, APLD, NSPF and others. Together, we are establishing higher standards in watershape design and construction.

Cover Photo
Designer: Brian Van Bower,
Aquatic Consultants, Inc.
Builder: AW2 Architects
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Right to Modify

Genesis 3, Inc. reserves the right to change anything including, but not limited to, adding, deleting, or modifying programs, descriptions, instructors, certification requirements, continuing education requirements, program durations, venues, fees, etc.

This catalog is a working document that changes continuously with updated information. Please check the website or scan this QR code for the most current version:

http://university.genesis3.com/docs/Genesis_3_University_Catalog.pdf
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NPSF Programs
Aquatic Play Feature™
Aquatic Facility Audits
Certified Pool/Spa Inspector™
Emergency Response Planning
Field Service Professional
Pool & Spa Basics™
Pool Operator Primer™
Recreational Water Illnesses
Water Chemistry Basics™
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Leaders face resistance, criticism, and sometimes are even called names, like “pigs.” Yet, when we experience resistance, it often affirms that we are leading. Although most resist, leaders attract other leaders who come to their side and join the quest for improvement and excellence.

This phenomena of leaders attracting other leaders is what I have observed over the last 18 years as I watched Genesis evolve from a few “pigs” into the world’s leading watershape designers and builders. I hope that Brian Van Bower, Skip Phillips, the Advisors, and Society of Watershape Designers are proud. On January 1, 2016, Genesis and NSPF have become one organization. It is inspiring to witness the Genesis and NSPF families coming together. Both families have demonstrated leadership. Both are committed to preeminence.

The NSPF family is honored to stand beside the Genesis family. We are determined to forge a path to excellence. Proceeding together we are better prepared to lead our industry to the future we all know is possible. Whatever resistance we may face, I am confident we are more poised than ever to create a brighter future where more people live happier and healthier lives in and around the water!

Thomas M. Lachocki, Ph.D.
CEO
National Swimming Pool Foundation
Message from Skip and Brian

The two of us are sure that you will find this new University Catalog, and Genesis in general, to be better than ever! The strength of Genesis has been so enhanced and enriched by our merger with the National Swimming Pool Foundation (NSPF) that our potential for growth is unlimited.

The involvement of more of our members and students in helping to decide the future of Genesis, by determining the paths and methods to further our educational mission, is taking us to the next level. The quality of water projects is on an upswing; the buying public seems to have renewed enthusiasm for our products and services; and, generally, life is good!

We now have the added power of an organizational structure that frees us to focus on our goal of lifting our industry’s ability to design, engineer, construct, and service the best possible watershapes possible. At the same time we have access to NSPF’s credible research that confirms, in detail, the benefits and life enhancement capabilities our products have for all. What a great tool to have at our disposal!

We thank our sponsors for their continued support and encouragement in advancing the Genesis mission. We couldn’t do it without them. Thanks to you, our members and students, for continuing to spread the word and advance an entire industry. And thanks to the great folks at NSPF for having the vision to reach beyond all expectations to achieve greatness! We truly believe the best is yet to come!

Brian Van Bower, SWD Master
Genesis Ambassador & Co-Founder
Skip Phillips, SWD Master
Genesis Ambassador & Co-Founder

History of Genesis 3, Inc.

Throughout its history, the pool and spa industry has struggled to create credible education and certification. Due to its reluctance to advance a viable program, Skip Phillips, David Tisherman, and Brian Van Bower created the Genesis 3, Inc. educational system to fill that void.

Since 1998, Genesis has set the standard for quality programs, offering hundreds of educational venues internationally for thousands of students, ultimately creating the Society of Watershape Designers™ (SWD) and SWD Master certification.

Our educational programs have been in demand far and wide by those that recognize the quest for excellence and passion of the Genesis leaders, instructors, students, and SWD members. Classes have been given in Australia, Bali, Canada, France, Germany, Italy, Mexico, and, of course, the United States. This furthers the Genesis mission to create a global sharing of industry knowledge.

Beginning in 2012, we shifted into high gear, launching into our newly created “Genesis 3 University.” Due to Education Council Chairman David Peterson’s leadership, Brian and Skip’s desire for fundamental improvements within Genesis, and a fresh attitude, the University provides unequaled opportunities for ensuring the advancement of higher education. Coupled with our international stature and benchmark projects, our members set the global standard for watershape design and construction.

• The Construction classes are the basic foundation for many, while the advanced hydraulics and engineering courses stretch even long-time builders to push themselves higher.

• Design classes begin with fundamental pencil drawing, evolve into sketching, and culminate with computer aided design.

• Artistic classes cover not just sophisticated materials and how to apply them; but how differing materials, textures and colors can come together to create one-of-a-kind looks that separate Genesis designers and watershapers from their competitors.

In 2016, our merger with NSPF expands our expertise in both commercial projects and operations.

We continue to evolve and excel.
Message from the Chairman

Genesis 3® University is widely recognized as the preeminent education system for the residential pool industry. That respect was certainly valued by the National Swimming Pool Foundation® (NSPF®), which dominates the commercial education space with its Certified Pool/Spa Operator® (CPO®) Certification program. The Genesis merger with NSPF this year creates a formidable team where the whole is greater than the sum of the parts. It is cliché but perfectly describes the results of this pivotal milestone in the 18-year history of Genesis.

With the support of our new team, Genesis will continue to grow. We have earned the trust of additional sponsors. We have rebranded our certifications to levels within the Society of Watershape Designers™. We are merging the Genesis Service Professional certification into NSPF’s new Advanced Service Technician™ (AST) certification. And, of course, we are adding new instructors and programs.

This season, we are offering an industry-first 2-day renovation class. For several years we have taught a pair of 3-hour renovation classes focused on design/construction and structural/hydraulic considerations. The success of those programs, and the growing renovation segment of the industry, have resulted in a 2-day school where students will be guided through a series of in-depth topics, each followed by specific in-class project tasks. We will cover much more than the separate lectures did and the interactive project development will guide students to succeed with larger, more complex remodels.

Genesis has always thought of our community as a family. For those of you just getting started with Genesis or NSPF, we welcome you and we will help you succeed as we have done for thousands of other students. We also welcome back all of our continuing students and especially those who have perpetually attended, faithfully supporting us, our sponsors, and our Genesis family. You make this program a success and we are proud to see you improve everything from your quality and professional achievements to your personal lifestyle. I look forward to seeing my friends and family again in the coming months!

Sincerely,

David J. Peterson, P.E., SWD Master
Education Council Chairman
Letter from the Advisory Board

The Advisory Board (AB), established by Genesis in 2008, is comprised of SWD Masters (previously known as Platinum Members) who have agreed to help Genesis in many areas, including organizational development, policy, and outreach. Never has the need been greater for the voice of Genesis members and students to be heard than when Genesis and NSPF merged this January. I am pleased to be serving as Chairman of the Advisory Board, alongside fellow SWD Masters, Rick Chafey and Jamie Scott, through November 2017 – with our terms being extended by the Foundation to aid in the transition.

AB’s personal involvement increased dramatically when we participated in a strategy session with Genesis and NSPF key personnel early April, 2016. As a group, we established screening criteria to ensure all strategies considered would: be mission-based; do no harm; retain the culture; preserve integrity; raise professionalism; keep quality in education and ensure financial sustainability.

Moving forward, we are excited about the growth in educational offerings Genesis will provide to pool and spa professionals everywhere. We envision expansion -- more venues, more students and more opportunities to raise the professionalism of our industry.

During our strategy session, NSPF President, Bruce Dunn, contributed a huge overarching concept for the day and our path forward: “Make Good Greater.” The AB took Dunn’s mantra to heart in changing the Genesis membership structure to bring it in line with other professional organizations, such as American Institute of Architects (AIA), American Society of Landscape Architects (ASLA) and Association of Professional Landscape Designers (APLD).

The key changes to membership are outlined elsewhere in this catalog. But, generally speaking, Genesis 3® University is the creator and deliverer of the educational programs which leads to certification. Genesis students will aspire to become members of the Society of Watershape Designers™. There are three SWD certification levels: “Associate”, “Registered”, and “Master” defined by specific criteria of professional attainment and personal achievement. SWD is the name to be marketed to the public – other professionals and homeowners.

The AB’s focus in the coming year and beyond is to make “Society of Watershape Designers” mean something to the consumer. We are starting with the architectural community, crossing a bridge to the AIA through architect and new Genesis faculty member, Tom Heinz. His new course on “20th Century Architectural Styles” and short course, “Working with Architects” both roll out at the Southwest Pool & Spa Show in San Antonio in January 2017. Heinz is committed to promoting the registered SWDs as the go-to resource for swimming pool design and construction to the Architect community! Stay tuned for this and more!

Sincerely,

Michael Nantz, SWD Master
Advisory Board Chairman
SWD Certification Levels

SWD Associate
This title replaces the former Genesis “Gold Member” category. An SWD Associate is a student who successfully completes Genesis CONSTRUCTION 201: Basic Pool Construction and pays the member fee. Continuing education requirements are 12 hours every year.

SWD Registered
This title replaces the former Genesis “SWD Member” category. It requires 150 hours of classroom work, 124 core, plus 26 elective, and a passing score on accompanying classroom project(s) and exams. Continuing education requirements are 12 hours every year.

SWD Master
This title replaces the former “Genesis Platinum Member” category. SWD Masters are SWD Registered members that have proven their quality, professionalism, ethics, and business prowess via the submission of their work product, client references, and basic company financials for validation by the Advisory Board.

Why become a member of the Society of Watershape Designers?
SWD is the name marketed to the public – meaning other trade professionals and homeowners. Fifty percent of all member dues are directed toward efforts to reach those end consumers. Being an SWD entitles one to discounts on Genesis continuing education. But, most importantly, SWDs are members of a strong family creating the most beautiful watershapes in the world and assisting one another along the path to professional and personal excellence.
## Society of Watershape Designers™ Certification Comparison

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<th>SWD Registered</th>
<th>SWD Associate</th>
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<td>Required programs</td>
<td>Same as SWD</td>
<td>D101, D201/2/3/4, D211, D231, D271, E211, C201</td>
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<td>Core hours</td>
<td>Same as SWD</td>
<td>124</td>
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<td>Elective hours</td>
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<td>Total hours</td>
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<td>Continuing Education hours</td>
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<td>Digital seal</td>
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<tr>
<td>Renewal period</td>
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<td>% Discount on Genesis Education</td>
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<td>Members linked on SWD page of website</td>
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<td>Members linked on SWD Masters page of website</td>
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<td>Members have dedicated page on website</td>
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<td>Members listed in print advertising</td>
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<td>Members listed in website map search of SWD members</td>
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<td>Letter of Recommendation from existing SWD Master required</td>
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<td>Client referrals verified</td>
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<td>Financial strength reviewed by 3rd party</td>
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<td>Signed Code of Conduct required</td>
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<td>Projects featured in advertising and educational programs</td>
<td>Yes</td>
<td>-</td>
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<tr>
<td>Optional contributions to Social Media</td>
<td>Yes</td>
<td>Yes</td>
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Aquatic Floors - Custom Pool Systems
Aquavations
Aquron Corporation
Basecrete Waterproofing Products
Bobè Water & Fire Features
Bradford Products
Covertech, LLC
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Diamond Spas, Inc.
DEL Ozone
Fire By Design, Inc.
FlexCrete - Valcon Industries
Florim USA
Hayward Pool Products
International Pool | Spa | Patio Expo
Lunada Bay Tile
Master Pools Guild
National Swimming Pool Foundation
Oceanside Glasstile
Paramount Pool and Spa Systems
Pebble Technology International
Pentair Aquatic Systems
Pleatco, Inc.
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AquaCal/AutoPilot

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www.aquacal.com
www.autopilot.com

AquaCal AutoPilot, Inc. is part of the Team Horner® family, a leader in the swimming pool business since 1969. CEO, Bill Kent, Ph.D., has built the global Team to cover all facets of the swimming pool industry from manufacturing equipment and specialty chemicals to global wholesale distribution. His goal has always been to keep Team Horner® “Green and Growing” and to offer state-of-the-art equipment to the pool trade. We offer a wide breadth of product line in both the heat pump and salt chlorine generator categories.

**AquaCal® heat pump brands:**
- HeatWave SuperQuiet®
- HeatWave SuperQuiet IceBreaker®
- TropiCal®
- Water Source™
- Great Big Bopper®
- TropiCool™/Chillers

**AutoPilot® salt chlorine generator brands:**
- Pool Pilot® Digital
- Pool Pilot® Digital Nano
- Pool Pilot® AG
- Pool Pilot® Total Control
- SpaPilot®

Other brand names we offer include Lion Pool Products® (telescopic poles), AquaClean Robotic Cleaners, J.B. Fittings and Lo-Chlor® Specialty Chemicals.

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- SuperQuiet units are unsurpassed in the industry
- Technological leader in salt chlorine generation since 1976
- Easy to install and reliable
- High “up front” return
- Salt Chlorine Generator with a brain
Aquavations

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Aquavations is a worldwide leader in advanced, pre-blended exposed aggregate coating systems for the modern swimming pool. Our mission is to develop dependable, pre-blended pool plaster systems using basic and advanced technology from years of experience and hands-on applications.
Bradford Products

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www.bradfordproducts.com

Bradford Products, a leading manufacturer of stainless steel aquatic products, is well equipped to manage the most challenging projects. We specialize in elevated pools, spas and water features. They provide the longevity, durability and leak-proof quality that one expects from welded stainless steel. Whether it is a stainless steel pool, hot tub, therapy tank, swim spa, or water feature, Bradford manufactures only the highest quality stainless steel products. Bradford Products combines the elegance of ceramic tile with the durability of stainless steel to deliver these premier products.

Bradford’s Wellness & SPA division creates exotic thermal relaxation rooms; Steam Rooms, Hammams, Saunas, Vitality Pools, Ice Fountains, and Heated Loungers for Day Spa or Destination Spa facilities.

Bradford is known for our highly visible work throughout the world. Bradford’s design/build, fabrication, and craftsmanship is unparalleled in the aquatics arena and is featured in the LEED certified City Center project in Las Vegas and the New Doha International Airport in Qatar. Bradford’s creative design and engineering teams maximize aesthetics and functional demands of any project. The products embody contemporary designs and are complemented by a variety of luxurious tile finishes.

A glass bottom pool, with a radial infinity edge, and elevated as a full balcony, over my beachfront bar...?
Fire by Design Inc.

Bob Roman 702.673.7393
3255 Pepper Lane, Suite 109, Las Vegas, NV 89120
bob@firebydesign.com
www.firebydesign.com

Fire by Design a leading manufacturer of Automated Fire Features, is able to perform in very high winds (> 55 mph winds) and heavy rains. The performance of the Fire by Design system is second to none. In 2010, Fire by Design introduced the very first 24 Volt AWEIS system (All Weather Electronic Ignition System) and it has become the leading technology in the world of automated fire.

Recently, Fire by Design introduced their 12 Volt AWEIS system which now makes their automated fire features acceptable in close proximity to the swimming pool. Fire by Design offers solutions for Fire Bowls, Tiki Torches and even Fire ON the Water features as well. We also design and develop custom features for many of our clients.

Fire by Design…

Turning Dreams into Reality in Your Backyard!
Hayward® Pool Products

Michael Massa
620 Division Street, Elizabeth, NJ 07201
mmassa@haywardnet.com
www.hayward.com

At Hayward®, we’re more than just equipment. Our objective is to make you and your customer’s pool experience worry and hassle-free—both during installation and enjoyment. That’s why our equipment is engineered to last, and work smart at keeping pools sparkling clean and trouble free.

For over 80-years, we’ve been helping pool owners enjoy the pleasures of pool ownership by manufacturing cutting edge, technologically advanced pool equipment worldwide. We strive to ensure that all our products operate at maximum efficiency all season long. Whether you are trying to create the perfect backyard environment, or reduce operating and maintenance costs through the ease of wireless controls, Hayward is your single source solution.

Our products include a complete line of technologically advanced pumps, filters, heaters, heat pumps, automatic pool cleaners, lighting, controls and salt chlorine generators—high-quality components engineered to work together to keep pools at their best year after year.

May the sun never set on your backyard empire.

Hayward® is proud to introduce a range of high-performing products designed to elevate the swimming experience. Set the scene using OmniLogic®, the most intuitive automation system ever. Then, enjoy the comforts of superior water quality with Hayward heat, filtration and sanitization systems. Get total peace of mind, season after season, with reliable, efficient products from Hayward.
International Pool | Spa | Patio Expo

Tracy Garcia, CEM
PO Box 612128, Dallas, TX 75261-2128
Tracy.Garcia@Informa.com
www.PoolSpaPatio.com

The International Pool | Spa | Patio Expo (PSP) brings together builders, retailers, service companies, designers, and landscape architects for face-to-face interaction, product review, vital knowledge, and powerful connections.

The show floor features 1,500+ booths of manufacturers and suppliers of all sizes displaying products, services and equipment for the pool, spa, and backyard industry — including pools, spas, hot tubs, water features, casual furniture, barbecues, grills, lighting, landscape décor, hearth, outdoor lighting, equipment, chemicals, business services, and much more.

Show highlights include over 250 hours of education sessions, the Product Showcase, the Backyard Living Pavilion, the Genesis Design/Build/Landscape Pavilion, the Genesis Lifestyle Program, the APSP Pavilion, the Commercial Pavilion, the Hayward School of Business, the Pool Prize Party, Splash Talks, and the Treasure Quest, and the Casual Furniture Marketplace.

Special Events include the Welcome Party at Generations Hall, the International Awards of Excellence, the invite-only Industry Executive Forum hosted by NSPF, and the Genesis Family Reunion & Winemaker Dinner.

At the forefront of the PSP expo is a unique accredited educational conference program with proven strategies for increasing your company’s profitability and productivity. The program addresses hot topic key industry issues and trends while learning best practices and the latest technology to help you increase your bottom line, network with industry leaders and get answers to your business challenges. Specialty education is also available from Genesis, NPSF, APSP, NPC, and MetroStudy.

The 2016 Expo will be held in the at the Ernest N. Morial Convention Center in New Orleans, LA, USA. Exhibits will be will take place November 2-4, 2016 and conference October 30-November 4, 2016.

Rebranded in 2008, the show is made up of the former Int’l Pool & Spa Expo, Backyard Living Expo and AQUÁ Shows. Formerly owned by APSP, the show was sold to Hanley Wood Exhibitions in February 2001. Hanley Wood Exhibitions was acquired by Informa Exhibitions U.S. in December 2014. The official show sponsor is APSP; the official show publication is Pool & Spa News; and the official show endorser is Genesis. The Expo is ranked position #143 on the 2014 TSNN 250 US Trade Shows list.
Master Pools Guild

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The Master Pools Guild is a network of over 100 elite, custom residential and commercial pool builders from the United States, Canada, Guatemala, England, Spain, Australia, Costa Rica, Dominican Republic, India, United Arab Emirates, South Africa, and Mexico. The Master Pools Guild is the only group of its kind in the swimming pool and spa industry; membership is extended by invitation-only, thereby bringing together the industry’s brightest talent.

For over 50 years, the Master Pools Guild has harnessed the combined talents of its hand-selected members—all of whom have been chosen based on the merits of their innovative design style; high level of professionalism; ability to deliver superior-quality construction; scrupulous attention to detail; and appreciation for the importance of fostering strong working relationships with their customers, contractors and vendors.

In an effort to always keep abreast of the latest design trends and pool and spa technologies, Master Pools Guild members are committed to pursuing educational opportunities and adhering to the industry’s best practices. Additionally, one of the Guild’s strengths is its willingness to share information. Every spring and fall, members assemble to exchange ideas in a kind of industry think tank, where great minds put forth smart solutions.
The National Swimming Pool Foundation® (NSPF®) celebrates over 50 years of keeping pools safer and keeping pools open. NSPF certifies over 30,000 professionals a year in over 94 countries by providing the Certified Pool/Spa Operator® (CPO®) Certification program.

NSPF merged with Genesis in January, 2016, creating an organization with firm financial footing, global reach and significant penetration in both the public (commercial) and private (residential) pool markets. The NSPF-Genesis merger is the first step in elevating swimming and water activity to its rightful place as the healthy and pleasurable activity of choice by people of all ages.

As a non-profit, the combined organization, believes that everything it does helps people live healthier lives through aquatics! NSPF-Genesis offers products and programs that help accomplish the organization’s mission: To encourage healthy living by increasing aquatic activity through education and research. Over 60 online professional courses are available at www.nspf.org. The Genesis curriculum is vast, as outlined in this very catalog.

This year NSPF launched its Advanced Service Technician™ (AST) certification course. AST is especially designed for service professionals in the residential market and combines online and in-person learning.

Every year the World Aquatic Health™ Conference (WAHC) is hosted by the National Swimming Pool Foundation. The WAHC attracts hundreds of professionals around the globe to learn about the latest advances in research and education. NSPF also gives back to communities through the Step Into Swim campaign, a 10 year initiative to create one million more swimmers.
Pebble Technology International

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www.pebbletec.com

A reputation for excellence, integrity and support. Since 1987, Pebble Technology International (PTI) has been a driving force in the transformation of the pool building and remodeling industry. PTI maintains its leading position with an unwavering reputation for high quality products, outstanding customer support and dedicated sales and technical teams. With over 25 years of history, it is no surprise that the brand is recognized by so many.

With our expansive color selection, offered in 5 distinctive textures, our finishes allow you to achieve a wide range of water color tones. Further customize your finish by adding one or our many pool finish enhancements or incorporate unique glass tiles from our Finishing Touches Tile Collection. With Pebble Technology products, you can truly create a beautiful outdoor environment.

PebbleTec® is the ORIGINAL aggregate pool finish that delivers enduring elegance and durability. It is a perfect choice for those desiring a more natural environment for their pool and spa. An earthy textured finish comprised of the largest pebbles in our product offering. Offers a durable, non-slip and stain-resistant surface.

Our most popular finish is PebbleSheen® which provides the same natural beauty and inherent qualities as the original PebbleTec pool finish but with a more refined texture. Offers a durable, non-slip and stain-resistant surface.

Made from our smallest natural pebbles, PebbleFina® delivers the smoothest aggregate finish available. This exclusive product line is enriched with additives that provide superior strength and long-lasting durability over a traditional pool finish. Our unique technology provides increased density and resistance to etching caused by fluctuations in water chemistry.

PebbleBrilliance™ is our newest finish. It is a blend of vibrant glass beads and natural stone aggregate. The stunning beauty of the glass beads creates an infusion of color delivering a captivating finish and uniquely brilliant water color. Offers long-lasting durability with a lavish texture.

BeadCrete® is an elegant glass bead pool finish that offers a three-dimensional reflective effect. Its exquisite brilliance creates a crystal-like effect in the water with superior water clarity. Comprised of smooth glass beads. Offers a luxurious texture with an exceptional resistant surface.

Fire + Water Elements is a line of handcrafted hammered copper fire, water, fire & water bowls and fire pits add an element of luxury to an outdoor living space turning it into something exceptional.
Pentair Aquatic Systems

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Pentair Aquatic Systems is the world’s leading pool and spa equipment manufacturer. Pentair’s breakthrough products minimize maintenance and energy consumption and maximize comfort, convenience, and beauty to deliver the ultimate pool ownership experience.

Pentair is the only manufacturer from the pool industry to be recognized by the U.S. Environmental Protection Agency as an ENERGY STAR® Partner of the Year, three years in row. This year, they were further distinguished with a Sustained Excellence Award for its continued leadership in protecting the environment through superior energy efficiency achievements.

Pentair is a proud sponsor of National Water Safety Month. In partnership with the APSP, this annual awareness campaign helps bring safe, enjoyable aquatic activities to the American public, from backyards to waterparks.

As a co-sponsor of the Virtual Backyard, Pentair is bringing best practices for pool construction and backyard environments to the industry. Pentair also provides pool professionals with the very best in digital education and training tools like its virtual Pentair University and TechSmart™ Troubleshooting Tool and Pool IQ™ apps.

Large investments in print and digital media, coupled with in-store point-of-sale displays help highlight the efficiency and easy maintenance that pool owners and prospective owners can enjoy with money-saving IntelliFlo® 2 VST Pumps, ambiance-enhancing IntelliBrite® and GloBrite® Colored LED Lighting, smartphone and mobile device compatible pool controls, and automatic sanitizers/chemical controllers.

WE’VE GOT YOUR BACK
The products you want, the support you deserve.

Variable Speed Pumps Filters Heaters Colored Lighting Automation Sanitizers Automatic Pool Cleaners
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Pool & Spa News

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POOL & SPA NEWS is the premier information source of hot product news, insightful marketing and management tips, and top-notch design ideas for professionals in the pool and spa industry. POOL & SPA NEWS delivers award-winning content to pool builders, retailers and service techs that purchase, specify, and recommend products through its magazine, newsletters, website, data, custom marketing solutions and social media networks.
Zodiac Pool Systems, Inc.  

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www.zodiac.com  

Zodiac Pool Systems, Inc. is a leading global manufacturer of pool and spa products. Applying more than 100 years of innovation excellence to product engineering, we develop some of the world’s leading solutions for the most technologically advanced and energy-efficient swimming pools and spas. Zodiac is fully invested in the relationships with pool builders, retailers, and service companies. With value-added programs and resources, best-in-class products, and industry leading dealer loyalty programs, Zodiac has become the provider of choice for countless pool users and dealers worldwide.

Zodiac delivers quality-designed products under the leading brands of:

**Jandy®. Premium Professional-Grade Equipment**

Jandy Pro Series manufactures an integrated system of pool and spa products and enjoys an unparalleled reputation for producing innovative, energy efficient, professional grade products. Build the perfect pool environment with Jandy’s award-winning automation and full line of pumps, filters, heaters, lights, valves and chlorinators. Jandy’s focus is on enabling the perfect pool environment so pool owners can spend time enjoying their pool and spa, rather than maintaining it.

**Polaris®. Your Pool. Our Reputation.®**

For more than 40 years, Polaris has been known worldwide for its quality and best-in-class cleaning power. This visionary class of pool cleaners has become the benchmark against which all others are measured. No other pressure cleaner delivers the cleaning performance, quality, and serviceability of a Polaris.

**Zodiac®. A Better Life®**

Zodiac is renowned for delivering innovative automatic pool cleaning products that attack the pool with cleaning performance. Known for the breakthrough innovations of the MX8™ and MX6™, our smart and simple line of mechanical and disc suction pool cleaners, are exceeding consumers expectations and helping grow the overall market.
Aquamatic Cover Systems

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www.aquamatic.com

AquaticFloors manufactures automatic swimming pool and energy saving cover systems. Utilizing all-fluid drive hydraulics, these systems are simple yet very robust.

The Hydramatic exceeds ASTM F1346-91 standards for safety and closure. The HydraLux is an automatic energy saving pool cover that utilizes extruded slats which can be cut to any converging shape. This cover is the most adaptable to virtually any pool design, and is ideal for zero edge applications.

Both covers achieve significant ROI (return on investment), by reducing consumption of electricity, water and chemical usage. Visit our website to see why designers and builders, when specifying and automatic pool cover, choose Aquamatic. Leading the industry since 1980.

AquaticFloors - Custom Pool Systems

Cesar A. Cortes II  844.282.4277
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cesar@custompoolsystems.com
aquaticfloors.com

Custom Pool Systems offers a high performance hydraulic floor production utilizing cutting edge technology. We deliver the absolute best in movable pool floors, transforming your pool into an additional floor space in just minutes.

Unlike our competitors, we are proud to be a U.S. base company that offers unparalleled customized service to our clients. We oversee each project from beginning through finishing point. Our experienced team can design, specify and install your motorized pool floor while working together with your architect and pool construction company.

If you are looking to add sophistication, precision and convenience to your new outdoor space – Custom Pool Systems is the company for you.
Aquron Corporation

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www.aquron.com

The Aquatics Division of AQURON® Corporation was formed to address problematic conditions (including efflorescence and water migration) encountered by Pool Contractors in using pneumatically applied ready mix Shotcrete, dry mix Gunite, poured concrete, or natural stone surfaces. The “Aquron® Efflorescence system”, CPSP™ and MGS™, work together to virtually prevent all efflorescence, including the underlying damage to the embedded steel. The four flagship aquatics products effectively prevent water migration issues and more for the long-term purpose of maintaining both the structural integrity and beauty of waterscapes and pools. A small investment in the inclusion of Aquron® Aquatics products in the construction phase can prevent large losses in money, time and reputations. Call us to purchase products and to tap into our vast knowledge about technical issues.

Basecrete Waterproofing Products

Vito Mariano 844.207.1607
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Basecrete is an all in one cementitious waterproofing and bondcoat; the only 2 step application process: One Vertical - One Horizontal Application, with No Densifying needed. Use Basecrete wherever waterproofing strength, power, and flexibility are needed or required. A proprietary blend with exceptional adhesion, resists most chemicals and corrosive agents, Basecrete waterproofs, protects, repairs and restores all water containment vessels and concrete structures or surfaces from deterioration due to water infiltration. Completely resistant to all chemicals in pool maintenance, Basecrete controls the drying and hydration of pool plaster. Basecrete’s goes on like butter, adheres to anything, provides exceptional impermeability, and flexibility. A 10-year limited warranty with technical and on-site training is available.
Bobé Water & Fire Features
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Bobé Water & Fire Features

Covertech LLC
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Covertech – Grando pool cover was founded in 2000. Through its outstanding work Covertech – Grando has spread from the East Coast of New York through the US all the way to California. Covertech – Grando has won over 60 Awards in the category of “Residential Pool with Automatic Pool Covers” since then. Grando rigid-slat pool covers are the only slated pool cover which can be cut to exact rounding and are manufactured sealed in 4 stages within the slat chambers itself. Grando is the inventor of the rigid slated pool cover and has manufactured their pool cover since 1963 worldwide.
Current Systems, Inc.

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Phillip de Tournillon     888.443.4113
1835 East Hallandale Blvd Ste 687, Hallandale Beach, FL 33009
sales@current-systems.com

In the hands of skilled Genesis watershapers, Riverflow® pumps have enhanced swimming pools, lazy rivers and water features around the world. As a Genesis sponsor, we have benefited from a range of associations with designers, builders and engineers who insist on excellence.

Our Riverflow® propeller pumps carry NSF 50 certification and our suction sumps and grates are VGB compliant. Our system features infinite variable speed, wireless remote control, and a variety of return configurations. Current Systems Inc welcomes collaboration with pool professionals to achieve their watershaping goals.

Diamond Spas

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Diamond Spas specializes in the fabrication of custom stainless steel and copper spas, swimming pools, glass walled pools and spas, swim spas, cold plunge pools and water features.

Stainless steel and copper are incredibly durable and sanitary. Both metals are an ideal choice for roof top pool and spa applications as metal weighs considerably less than traditional pool and spa materials. Since 1996 Diamond Spas has been shipping product to luxury homes and businesses worldwide. Diamond Spas looks forward to the opportunity to work with Genesis members to further the progression of the aquatic industry.
DEL Ozone
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jjones@delozo.com
www.delozone.com

DEL Ozone® is a global leader in advanced ozone technologies for more than 40 years, and continues to provide commercial and residential consumers with innovative, environmentally friendly products designed to fulfill water sanitation needs for the pool and spa industry. DEL Ozone® has earned approvals and certifications from NSF, EPA, UL, and cUL in order to protect and improve human health through one of the world’s most important resources — water.

DEL Ozone® pioneered the use of combining ozone and germicidal UV-C technology into an affordable small commercial/residential system that produces Advanced Oxidation Process, also known as AOP®. This enhanced process is proven to maximize disinfection, substantially improve water clarity, increase the softness/feel of water, and effectively remove contaminants — such as chloramines, microorganisms, pesticides, aromatic compounds, and biofilm — through the synergy of ozone, UV-C, and the resulting chemical reaction that generates hydroxyl free radicals.

FlexCrete – Valcon Industries, Inc.
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“Waterproofing, The Cornerstone of Longevity and Permanence” is what Valcon Industries, LLC integrated product line is all about. Valcon products and systems can waterproof virtually any type of substrate under virtually any type of condition. FlexCrete’s superior polymers are the state of the art of the industry allowing Flexcrete to bond to almost any surface such as concrete, plaster, Styrofoam, fiberglass, glazed tile, wood and EPDM materials.

For suspended pools, negative edge pools, raised pools and spas, water walls, fountains, Koi ponds, and rock features etc., Valcon Industries, LLC has a bullet proof system for them all. Our products have thousands of applications rendering longevity and permanence to every project. Simplicity is the key and single source material supply is the answer to all your waterproofing needs. Site specific protocols and personal service to all our customers is our stock in trade.

When you want to stop unsightly efflorescence either before or after, Valcon Industries is here to help assure that those problems are a thing of the past. We have millions of square feet applied across the globe! Contact us to show you how together we can build projects that have the longevity and permanence you are looking for.
Florim USA

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www.florimusa.com

Built upon the solid roots of the Florim Group based in Italy, Florim USA is committed to continued technological innovation and to producing timeless and sustainable porcelain products. Florim USA is one of the largest and most technologically advanced porcelain facilities in North America and has been owned by the Florim Group since 2000.

Florim USA is committed to the continued technological innovation of its processes to create products that increasingly meet the demands of the market.

Florim USA is committed to the environment and always observes environmental regulations through certified quality management systems and ecological processes. Florim USA’s mission is to be committed to continued technological innovation.

Florim USA believes its customers are the foundation for our continued success and the company strives to provide them with improved service and support by staying at the forefront of product innovation in today’s complex market.

Florim USA is more than just a company name; it is a residential and commercial brand that promises people in the American market a timeless and sustainable product offering. Florim USA is proud to be a Made in the USA product with an exclusive Italian style.

Oceanside Glasstile

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www.glasstile.com

Oceanside Glasstile is a world leader in the design and production of handcrafted glass tile, and is proud to serve on the TCNA board in the development of standardized installation methods for the tile industry. Our glass products are properly annealed making them freeze-thaw resistant and the ultimate solution for pool and water feature applications. With a range of sizes, colors and customization capabilities Oceanside Glasstile is the perfect choice for your next luxury feature. Our friendly, knowledgeable Customer Service and Technical Support teams matched with our world-class Art Glass Facility is accessible to all our customers and helps to ensure that your vision is successfully achieved.

Oceanside Glasstile was founded in 1992 with a boundless spirit of innovation, a fervor for the art of glass blowing and a new vision for the tile industry—creating luxury glass tile. Handmade in North America, Oceanside Glasstile recycles over 2 million lbs of post-consumer glass each year. Glass tile manufacturing is an art and a science. Unsophisticated or inferior manufacturing techniques typically result in product inconsistencies and defects. At Oceanside Glasstile we take pride in our ability to combine precision engineering with state-of-the-art technology and handmade artistry to create the highest quality glass tile in the industry. Let us help you elevate your next project to one of luxurious sophistication with our hand made glass tile.
Paramount Pool & Spa Systems

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www.1paramount.com

Paramount Pool & Spa Systems evolved from a pool construction heritage with a goal of making pool ownership the most carefree and enjoyable experience possible. Founded and “Made in America” since 1964 Paramount is now the World’s #1 in-floor cleaning system company and maintains an active R&D effort with an emphasis on automatic cleaning, enhanced circulation and water sanitization. Our wide range of products are sold worldwide through a network of authorized dealers and distributors.

With a focus on quality, service and innovation Paramount is dedicated to providing products and services that provide builders some separators for their sales and marketing efforts. One way we do this is with Paramount Capital; a service through which dealers can offer a wide range of consumer pool financing options. Our Passport to Paradise program allows dealers to qualify annually for incentive trips to premier destinations around the world, which is a way of thanking our dealers for their business and support.

Pleatco, Inc.

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www.pleatco.com

AT PLEATCO, IT'S ALL ABOUT CONSTANT IMPROVEMENT

Good, successful companies stick with what they do best – and seek opportunities in the future. We’re not afraid to change... it’s what good companies do. You can’t fake this commitment to constant improvement and customer care. It’s not just a mantra either; it’s in our DNA. You can’t distill it all down to one idea or philosophy; it’s about quality, integrity, and doing what’s right across the board.

• QUALITY
• SERVICE
• INNOVATION
• PEOPLE
WaterShapes

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WaterShapes.com is a web portal that centralizes, organizes and democratizes information having to do with the processes by which water-containing vessels and their surroundings are designed, engineered and constructed. It serves all visitors as a forum for communication about how these environments and their amenities can be assembled practically, properly and profitably.

WaterShapes.com is a constantly growing, constantly evolving resource offering access to practical information – a forum that leads professionals to the state of the art and the materials, tools and methods used to achieve ambitious results. Open to consumers, it also equips homeowners and property managers with information they need to ask the right questions as they aspire to own or improve their watershapes and aquatic environments.

WaterShapes.com is also host to the WaterShapes Professional Network, a web service designed as a bridge between consumers who want access to information about watershapers and professionals who design and build with water as their chosen medium. To draw those users, WPN has done the work involved in producing high-level search results – something the network can do collectively much more efficiently than any individual site could hope to do.
Active Minerals International, LLC

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Active Minerals produces Acti-Gel® 208, a shotcrete performance enhancing additive. Acti-Gel® 208 enables excellent flowability when energy is applied and creates a highly cohesive concrete when energy is removed. This natural phenomenon is perfect for shotcrete and gunite where high lifts, thick walls, reduced rebound, and one-pass overhead applications are desired.

Acti-Gel® 208’s ability to improve pumpability, enhance workability, and greatly increase cohesion results in minimal waste from fallouts. Acti-Gel® 208 has proven successful in eliminating silica fume and fly ash in certain formulas. Acti-Gel® 208 is the natural solution to many of your shotcrete problems.

Aquadar Pool Products

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A global leader in pool drain technologies, AquaStar offers over 36 different safety drain covers in 5 colors, providing compliance solutions for virtually any application. AquaStar understands your needs and is dedicated to inventing and manufacturing, made in the USA, pool products that give design professionals the freedom to focus on aesthetics. Let our patented innovations and know-how take the mystery out of VGB compliance and often overlooked, fittings-based hydraulic efficiency.

Lunada Bay Tile

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www.lunadabaytile.com

Lunada Bay Tile creates a broad selection of high temperature, poured and annealed cast glass, mounted paper-faced and designed for pool applications.

Inspired by the lifestyle and light of the Southern California coast, Lunada Bay reflects a distinct approach to experimentation, based on a design philosophy that blends traditional craftsmanship with modern influences. Our products emphasize simplicity, texture and color, and they are informed by specialized techniques that allow our artisans to create effects unlike any other source in our industry.
Genesis 3, Inc. Logo Terms of Use

In order to safeguard the Genesis brand recognition and value to our sponsors we have established these conditions:

1. The base logo includes the word “GENESIS” plus three overlapping and curving triangles as shown here:

   ![Genesis Logo](image)

2. The base logo shall only be used by Genesis 3, Inc. and their authorized agents for digital or print media. Sponsors shall use the subtitled version.

3. A specific variant of the logo includes a subtitle for sponsors.

4. The logos are the exclusive copyright protected property of Genesis 3, Inc. Sponsors that choose to use the logo(s) due so with temporary authorization only. The use of the logo(s) is limited to authorized sponsors only and may be revoked at any time. If a user loses the privilege to display the logo then they must remove it from digital media within 30 days and from print media within 180 days.

5. Genesis 3, Inc. reserves the right to modify the logos and is not responsible for expenses that may be required to update the sponsor’s digital or print media. Changes requested by Genesis shall be completed for digital media within 30 days and for print media within 180 days.

6. The logos are available in other colors and grayscale for use over dark backgrounds. The logos shall not be modified by the user except for changes in proportional scale. This includes font style and spacing and color changes. The logo shall not be rearranged to move or scale the triangles relative to the text. Authorized users shall only obtain copies of the logo from Genesis 3, Inc. Do not copy from another site.

7. Genesis owns the trademark for “Society of Watershape Designers” (SWD.) A logo exists for each level of membership within SWD -- Associate, Registered and Master. Genesis encourages the authorized use of the logo and certifications wherever possible. The logo and/or text about Genesis 3, Inc. shall not be used in a way that confuses anyone or gives the appearance that a person or entity has achieved a certification any greater than the person or entity has actually achieved.

8. When used for digital media (e.g., websites, e-mail signatures, social media, blogs, advertising, etc.) the image shall be clickable and shall link to http://www.genesis3.com and no other site, subdomain, or specific page within the http://www.genesis3.com site.
Education Partners

Genesis 3 University works closely with the following partners to extend education beyond our core programs. We accept their accredited programs as elective units towards certification and continuing education requirements.

ClearWater Tech, LLC

Cameron Tapp 800.262.0203
850 Capitolio Way, San Luis Obispo, CA 93401
capp@cwtozone.com
www.cwtozone.com

ClearWater Tech hosts a 6-hour training course at their manufacturing facility in San Luis Obispo, CA. Beginning with a brief introduction, history, and use of ozone, the class quickly moves to the details of corona discharge hardware, control systems, and safety considerations. After reviewing the specifics of their ozone equipment, students break-down and rebuild certain elements in a thorough maintenance and repair training session.

National Swimming Pool Foundation

Thomas M. Lachocki, Ph.D. 719.540.9119
4775 Granby Circle, Colorado Springs, CO 80919
tom.lachocki@nspf.org
www.nspf.org

NSPF has many classes on various topics from compliance training to professional development NSPF is an IACET-approved provider. Their flagship Certified Pool-Spa Operator® (CPO) Basic Course is a requirement of many states and jurisdictions, with over 30,000 individuals certified on an annual basis in the US, Canada and around the world.

NSPF’s new Advanced Service Technician™ (AST) certification program, will replace the Genesis Service Professional certification.
Accreditation

We strongly believe that third-party accreditation is paramount to the quality and validity of any educational system. With that in mind, we actively maintain accreditations through the following authorities. We cannot accept credit for classes provided by self-accredited educational programs.

International Association for Continuing Education and Training (IACET)

Genesis 3, Inc. and NSPF are accredited by the International Association for Continuing Education and Training (IACET). Genesis 3, Inc. complies with the ANSI/IACET Standard, which is recognized internationally as a standard of excellence in instructional practices. As a result of this accreditation, Genesis 3, Inc. is authorized to issue the IACET CEU.

The number of Continuing Education Units (CEUs) is calculated as one (1) CEU equals ten (10) contact hours of learner interaction with the content of the learning activity, which includes classroom, self-paced instruction, pre/post assignments, and/or homework in support of a learning outcome. For more information, please visit IACET online.

7918 Jones Branch Drive, Suite 300, McLean, VA 22102
703.506.3275
www.iacet.org

American Institute of Architects (AIA)

We do not have specific AIA accreditation of our programs. However, the AIA does accept applicable IACET CEUs and students are encouraged to confirm the eligibility of specific programs prior to signing up if the units will be used to maintain licensure. For more information, please visit the AIA online.

1735 New York Avenue NW, Washington, DC 20006-5292
202.626.7300
www.aia.org
Association of Professional Landscape Designers (APLD)

Several of our programs are accredited by the APLD for meeting their continuing education requirements. The APLD requires 30 hours of continuing education every 3 years. For more information, please visit the APLD online.

Denise Calabrese
4305 North Sixth Street, Suite A, Harrisburg, PA 17110
717.238.9780
www.apld.org

Florida Construction Industry Licensing Board (CILB)

Several of our programs are accredited through the Florida Swimming Pool Association (FSPA) by the CILB for meeting their continuing education requirements. The CILB requires 14 hours of continuing education every 2 years. For more information, please visit the CILB online.

Florida Construction Industry Licensing Board (CILB)
1940 North Monroe Street, Tallahassee, FL 32399-0783
850.487.1395
www.myfloridalicense.com/dbpr/pro/cilb/index.html
Projects and Exams

Programs of 8 hours or more typically include a project, or exam, or both. The purpose of assessment is to measure student learning, reinforce what is valued (e.g., safety issues), emphasize the importance of key learning objectives, and ultimately to improve our programs via self-evaluation based on the results of the students' exams. Our accreditation requires that learning objectives are "measurable" so we are using the projects and exams to validate those measurements.

Projects may be individual or group work to design and/or present material relative to the program.

All exams are administered online at www.onlinetesting.net. Students are encouraged to use materials provided in the class or referenced as part of the classroom presentation. Students are discouraged from using materials not referenced in the class since that information may contradict our teachings which could result in exam failure. The primary reason for handling the exams online is that it allows for more time in the classroom with the instructor and subject matter. The other benefits include instantaneous scoring and explanation of the missed answers, plus the ability for the student to work at their own pace in the comfort of their home.

Substitutions

Credit for classes passed at an accredited junior college, four-year university, or other IACET accredited provider may be recognized for the purposes of certification if the program is substantially similar in terms of content and duration. We cannot accept credit for classes provided by self-accredited educational programs. It is strongly recommended that pre-approval is obtained in writing prior to taking a program outside of the Genesis 3 University to be sure that it meets the validity criteria.

A substitution cannot provide credit for more hours than is achieved by taking the equivalent Genesis program (for example, a semester of hydraulics study does not count as more than 16 hours towards the required ENGINEERING 211: Basic Fluid Engineering program). Excess hours will not apply towards elective or continuing education requirements. A passing score is 70% or better and the approval will only be granted by the Education Council after review of the student’s official transcripts.

Substitutions will not apply to continuing education requirements unless the class was taken during the reporting period.

Challenges

We do allow certain programs to be challenged which results in credit for the class using the same criteria as a substitution (see above) except that no previous accredited class is required. This may be approved for certain things such as our drawing classes where a student’s previous extensive experience and portfolio may be used as a substitute for taking the class.

To challenge a program it may be necessary to complete the exam, if available, or submit work product that exceeds what would have been done in the class as a project. For example, a portfolio of SketchUp projects may be submitted as a challenge to completing DESIGN 202: SketchUp.
Affiliations

Genesis 3 Inc., in its drive to raise standards and improve the watershaping industry, is a proud member of the following organizations:

American Concrete Institute
Mark Campo 248.848.3700
38800 Country Club Drive
Farmington Hills, MI 48331-3439
mark.campo@concrete.org
www.concrete.org

American Shotcrete Association
Mark Campo 248.848.3780
38800 Country Club Drive
Farmington Hills, MI 48331-3439
mark.campo@concrete.org
www.shotcrete.org

American Society of Landscape Architects
636 Eye Street, NW
Washington, DC 20001-3736
202.898.1185
www.asla.org

Association of Professional Landscape Designers
Denise Calabrese 717.238.9780
2207 Forest Hills Drive
Harrisburg, PA 17112
www.apld.org
Bundesverband Schwimmbad & Wellness E.V.  
An Lyskirchen 14  
50676 Köln Germany  
info@bsw-web.de  
www.bsw-web.de

Carecraft, Inc.  
Greg Howard  
949.373.3333  
880 Carlsbad Village Drive #202  
Carlsbad, CA 92008  
greg@carecraft.com  
www.carecraft.com

Florida Swimming Pool Association  
Wendy Parker Barsell  
941.952.9293  
2555 Porter Lake Drive, Suite 106  
Sarasota, FL 34240  
Wendy@FloridaPoolPro.com  
www.floridapoolpro.com

National Plasterers Council, Inc.  
Jeff Henderson  
847.416.7272  
1000 N. Rand Road, Suite 214  
Wauconda, IL 60084 USA  
nationalplasterscouncil@gmail.com  
www.npconline.org
Advisory Board

Elected by the Genesis membership in 2008, the Advisory Board is made up of SWD Masters who have agreed to donate time and meaningful help to the Genesis organization and its principals on a regular basis in many different areas, including organizational development, policy, and outreach. The Board Members’ various abilities, experience, and knowledge complement the Genesis organization as a whole. The Advisory Board meets multiple times a year and is in open communication with the Genesis and NSPF Principals and Staff.

The Genesis Principals chose to create this powerful asset for objective advice, to gauge the marketplace, and to seek new strategic positions.

The Advisory Board serves the Members by tracking issues, soliciting Member comments, and proposing actions to resolve them. The Board provides periodic updates on current issues to the Membership via the Genesis newsletter and more recently, the Strategy Session. Genesis SWD Masters also meet annually during the International Pool | Spa | Patio Expo.

The Advisory Board is made up of three Members: Rick Chafey, Jamie Scott and Chairman, Michael Nantz.

Education Council

The Education Council consists of six members with different backgrounds and expertise that provide diversity and balance to the Genesis 3 University system. The Education Council includes the following members:

<table>
<thead>
<tr>
<th>Member</th>
<th>Trade Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Peterson, Chairman</td>
<td>Engineering</td>
</tr>
<tr>
<td>Skip Phillips, Vice Chairman</td>
<td>Construction</td>
</tr>
<tr>
<td>Brian Van Bower, Member</td>
<td>Business</td>
</tr>
<tr>
<td>William Drakeley, Member</td>
<td>Construction</td>
</tr>
<tr>
<td>Kate Wiseman, Member</td>
<td>Landscape Architecture</td>
</tr>
<tr>
<td>Helena Arahuete, Member</td>
<td>Architecture</td>
</tr>
</tbody>
</table>

Contact information is listed at the right. For bios please see the Faculty section of this catalog.

Key Contacts

Brian Van Bower, SWD Master
Genesis Ambassador
305.383.7266
brian@aquaticconsultantsinc.com

Skip Phillips, SWD Master
Genesis Ambassador
760.738.5100
skip@questarpools.com

Lisa Ryckeley
Director of Operations
615.907.1274
lisa@genesis3.com

Lauren Stack
NSPF Mission Development Director
National Swimming Pool Foundation
216.470.1154
lauren.stack@nspf.org

Katie Wilke Junkers
Education Coordinator
615.907.1274
katie@genesis3.com

Michael Nantz, SWD Master
Advisory Board Chairman
214.222.1225
mike@eliteconceptsinc.com

David J. Peterson, P.E., SWD Master
Education Council Chairman
858.720.1001
dave@watershapeconsulting.com

Kate Wiseman, MLA
Education Council Member
619.618.6410
kate@sageoutdoordesigns.com

Helena Arahuete, NCARB
Education Council Member
310.577.7783
lautnerassoc@earthlink.net

William Drakeley, SWD Master
Education Council Member
860.274.7903
bill@drakeleypools.com

Paolo Benedetti, SWD Master
Forum Administrator
408.776.8220
paolob@aquatictechnology.com
**Education Council**

**Roles**
- Seek the needs and wants of the students.
- Conceive new, innovative, and relevant programs for the students.
- Identify new and evaluate existing instructors.
- Guide and/or review the development of the programs.
- Schedule programs.
- Direct the strategies and programs of the Genesis 3 University system.
- Maintain accreditations.
- Define certification requirements.
- Develop and refine the catalog and brochure to better aid the students in envisioning their education “path.”

**Goals**
- Raise the credibility of the Genesis 3 University system.
- Retain existing student base.
- Attract new students.
- Shorten the duration required to obtain certifications.
- Develop certifications that will enhance the ability for our members to be a value to other design professionals.

**Structure**
- All Council Members report to the Education Council Chairman.
- All Members have equal voting rights. In the event that an Education Council vote results in an equally split decision, the final decision rests with the Education Council Chairman.
- All changes within the Genesis 3 University system must be approved by the Education Council Chairman.
- All Members are encouraged to present new ideas and assist with the roles and goals above.
Suggested Tracks

Below are suggested tracks depending on the primary job description. These are not requirements – just suggested options:

Designer/Sales

If you are a designer or if you present your designs in a sales capacity, consider the following elective curriculum: D301: Marker Rendering or D102: Drawing Skill Builder, and D311: Creating a Cohesive Design Concept: Materials, Details, Color, and Style, and D321: Feng Shui, and D401: Presentation Workshop.

Water Feature Designer

If you design water features, consider the following elective curriculum: D251: Fountains & Water Features, and D261: Natural Streams & Ponds, and D351: Dry-Deck Fountain Safety

Construction Foreman

If you are a construction foreman, consider the following elective curriculum: C401: Advanced Watershape Construction, and C402: Best Practices for Cast-In-Place Concrete Construction as Designated by the ACI, and C403: Best Practices for Shotcrete Construction as Designated by the ASA and ACI.

Business Owner


Retail Store

<table>
<thead>
<tr>
<th>Program Number: Program Title Instructor(s) - Certification Requirement(s)</th>
<th>Hrs</th>
<th>Program Number: Program Title Instructor(s) - Certification Requirement(s)</th>
<th>Hrs</th>
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<tbody>
<tr>
<td>D101: Introduction to Perspective Drawing Michael Nantz - SWD</td>
<td>8:00</td>
<td>D201: Measured Perspective Drawing Michael Nantz - SWD option 1 of 4</td>
<td>16:00</td>
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<tr>
<td>D102: Sketching and Freehand Communication Michael Nantz</td>
<td>8:00</td>
<td>D202: SketchUp David Peterson - SWD option 2 of 4</td>
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<td>D203: AutoCAD Richard Kremer - SWD option 3 of 4</td>
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<td>D204: Pool Studio Barry Justus - SWD option 4 of 4</td>
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<td>D108: Plans, Useful Data and Attributes; a Builder’s Standpoint and Obligation Michael Nantz</td>
<td>1:00</td>
<td>D211: Elements of Design Kate Wiseman - SWD</td>
<td>16:00</td>
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<tr>
<td>D111: Small Space Design &amp; Construction Barry Justus</td>
<td>2:00</td>
<td>D221: Water in Architecture Helena Arahuete</td>
<td>2:00</td>
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<tr>
<td>D121: Contemporary Organic Architecture Helena Arahuete</td>
<td>3:00</td>
<td>D222: We Define Landscape Design Around Water Features TBD</td>
<td>1:00</td>
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<tr>
<td>D122: Designing with Water in the Landscape: An Architect's Perspective on How to Create the “Setting” for Swimming Pools/Water Features/Lakes/Ponds Eric Groft</td>
<td>1:30</td>
<td>D223: We Define Landscape Design Around Your Patio TBD</td>
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<tr>
<td>D123: Trends in Outdoor Design Kate Wiseman</td>
<td>1:00</td>
<td>D231: Color Theory &amp; Its Application Feras Irikat - SWD</td>
<td>16:00</td>
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<tr>
<td>D131: Identifying New Business &amp; Design Trends Feras Irikat</td>
<td>1:00</td>
<td>D241: Landscape Lighting Janet Lennox Moyer</td>
<td>16:00</td>
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<td>D141: Better Landscape &amp; Watershape Lighting Janet Lennox Moyer</td>
<td>1:45</td>
<td>D251: Fountains &amp; Water Features David L’Heureux, Paul L’Heureux</td>
<td>16:00</td>
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<td>D151: Water Works: The Keys to Designing State-of-the-Art, Award-Winning Water Features Brian Van Bower, David Peterson, Eric Groft, Skip Phillips</td>
<td>1:45</td>
<td>D261: Natural Streams &amp; Ponds Anthony Archer-Wills, David Duensing</td>
<td>16:00</td>
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<tr>
<td>D161: Innovative Natural Watershape Design Anthony Archer-Wills, David Duensing</td>
<td>3:00</td>
<td>D262: Water Features: A Custom Builder’s Tips and Tricks Barry Justus</td>
<td>1:30</td>
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<tr>
<td>D176: Tour of Frank Lloyd Wright's Home and Studio plus the Robie House Docent: Frank Lloyd Wright Home and Studio</td>
<td>6:00</td>
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<td>D178: Architectural Style Series: Oehme &amp; van Sweden Eric Groft</td>
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<td>D179: Working with Architects Thomas Heinz and Michael Nantz</td>
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<td>D181: Major Renovation of Pools - Design and Construction Considerations Michael Nantz</td>
<td>3:00</td>
<td>D292: Retailing at the Highest Level Greg Howard, Ron Baluch</td>
<td>16:00</td>
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<td>Program Number: Program Title</td>
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<td>D301: Marker Rendering</td>
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<td>D401: Presentation Workshop</td>
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<td>Michael Nantz</td>
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<td>D402: Adobe Illustrator</td>
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<td>D302: Digital Rendering with SketchUp</td>
<td>2:00</td>
<td>Crystal Trenkle</td>
<td>16:00</td>
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<td>Kate Wiseman</td>
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<td>Richard Kremer</td>
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<td>D303: Rendering Options, Benefits, and Drawbacks</td>
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<td>D403: 3ds Max</td>
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<td>D304: Digital Presentations</td>
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<td>D404: Digital Presentations</td>
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<td>D311: Creating a Cohesive Design Concept:</td>
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<td>D411: Integrating Manufactured Pools Into a</td>
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<td>Materials, Details, Color, and Style</td>
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<td>Master Plan</td>
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<td>Feras Irikat, Kate Wiseman</td>
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<td>Kate Wiseman</td>
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<td>D321: Feng Shui</td>
<td>16:00</td>
<td>D423: Outdoor Living – How to Create Beautiful</td>
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<td>TBD</td>
<td></td>
<td>and Comfortable Outdoor Rooms</td>
<td></td>
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<tr>
<td>D322: Audible and Visual Considerations of</td>
<td>2:00</td>
<td>Kate Wiseman</td>
<td>1:30</td>
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<tr>
<td>Water Feature Design</td>
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<td>D431: Color Psychology &amp; Applications</td>
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<td>Skip Phillips, Greg Boruff</td>
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<td>Feras Irikat</td>
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<td>D323: Outdoor Kitchen Design</td>
<td>1:30</td>
<td>D432: Outdoor Living – How to Create Beautiful</td>
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<td>Paolo Benedetti</td>
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<td>and Comfortable Outdoor Rooms</td>
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<td>D331: Color</td>
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<td>TBD</td>
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<td>D433: Color Psychology &amp; Applications</td>
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<td>D341: Submerged Lighting</td>
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<td>Feras Irikat</td>
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<tr>
<td>David Peterson, Steve Gutai</td>
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<td>D441: Landscape &amp; Watershape Lighting</td>
<td>5 day</td>
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<tr>
<td>D345: The Art of Landscape / Architectural</td>
<td>1:30</td>
<td>Janet Lennox Moyer</td>
<td>night</td>
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<tr>
<td>Lighting and How to Paint A Lighting Portrait</td>
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<td>D451: Landscape &amp; Watershape Lighting</td>
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<td>Nate Mullen</td>
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<td>D351: Dry-Deck Fountain Safety</td>
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<td>D451: Landscape &amp; Watershape Lighting</td>
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<td>Michael Denman</td>
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<td>D361: Waterfall Design &amp; Construction</td>
<td>1:45</td>
<td>D461: Waterfalls for Swimming Pools &amp; Landscapes</td>
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<td>David Duensing</td>
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<td>D363: DESIGN 363: Design Considerations for</td>
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<td>Commercial Water Features</td>
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<td>John Foster</td>
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<td>D371: Remodel Candidate - Opening The Door To</td>
<td>1:45</td>
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<tr>
<td>Possibilities</td>
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<tr>
<td>Michael Nantz</td>
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<tr>
<td>D375: Architectural Style Series: Post-</td>
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<td>Modernism &amp; Frank Gehry</td>
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<td>Program Number: Program Title Instructor(s) - Certification Requirement(s)</td>
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<tr>
<td>E101: Basic Pool Plumbing David Peterson</td>
<td>1:45</td>
<td>E201: State-of-the-Art Spa Details David Peterson</td>
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<td>E102: Geotechnical Les Reed</td>
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<td>E103: Structural Terry Brannon</td>
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<td>E104: Electrical Terry Brannon</td>
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<td>E211: Basic Fluid Engineering David Peterson</td>
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<td>E121: Natural Swimming Pools – The Pool Reinvented – Plants Instead of Chemicals James Robyn</td>
<td>1:00</td>
<td>E221: Advanced Water Purification Technologies TBD</td>
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<td>E171: Basic Pool Chemistry and Stain Control TBD</td>
<td>3:00</td>
<td>E271: Certified Pool-Spa Operator® (CPO) Basic Course Paolo Benedetti</td>
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<td>E181: Major Renovation of Pools - Structural and Hydraulic Considerations David Peterson</td>
<td>3:00</td>
<td>E281: Renovation of Fountains – Hydraulic Considerations David Peterson</td>
<td>1:30</td>
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<tr>
<td>E191: Designing Efficient Equipment Pads Steve Gutai</td>
<td>1:30</td>
<td>E291: Green Pool Design &amp; Construction Barry Justus</td>
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<tr>
<td>E192: Show Your Customer Why They Need to Upgrade Their Equipment David Peterson</td>
<td>1:30</td>
<td>E292: Energy Audits for Equipment Replacement David Peterson</td>
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<td>Program Number: Program Title</td>
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<td>Hrs</td>
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<td>E301: Basic Gravity Plumbing</td>
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<td>E401: Slot-Edge Pool Hydraulics</td>
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<td>David Peterson</td>
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<td>E302: Soil Stabilization</td>
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<td>David Peterson</td>
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<td>E303: Pier &amp; Beam Foundations</td>
<td>Terry Brannon</td>
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<td>E406: The Technical Aspects of</td>
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<td>Paolo Benedetti</td>
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<td>E305: Mechanical, Venting &amp; Exhaust Systems</td>
<td>David Peterson</td>
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<td>E311: Advanced Fluid Engineering</td>
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<td>E411: AutoCAD MEP</td>
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<td>Richard Kremer</td>
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<td>E312: Understanding Water Current</td>
<td>Peter Davidson, David Peterson</td>
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<td>E321: Natural Swimming Pools</td>
<td>James Robyn</td>
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<td>E471: Advanced Oxidation Processes</td>
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<td>David Peterson</td>
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<td>E381: Renovation of the Equipment Pad</td>
<td>Steve Gutai, David Peterson</td>
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<td>C101: Layout, Forming &amp; Excavation</td>
<td>Paolo Benedetti</td>
<td>2:00</td>
<td>C201: Basic Pool Construction</td>
<td>Greg Andrews, Paolo Benedetti, Terry Brannon, Bill Drakeley, Randy Dukes, David Peterson, Les Reed - SWD</td>
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<td>C102: Infrastructure Coordination</td>
<td>Paolo Benedetti</td>
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<td>C203: Basic Pool Construction</td>
<td>Greg Andrews, Paolo Benedetti, Terry Brannon, Bill Drakeley, Randy Dukes, David Peterson, Les Reed - SWD</td>
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<td>C204: The Science of Long Lasting Aggregate Finishes</td>
<td>Greg Andrews</td>
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<td>William Drakeley</td>
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<td>C206: Alternative Concrete Finishes</td>
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<td>Greg Andrews, Paolo Benedetti</td>
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<td>C207: A Plaster Crew's Guide to Shotcrete/Gunite Issues</td>
<td>William Drakeley</td>
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<td>C208: Pool Tile – The Good, the Bad, and the Ugly</td>
<td>Greg Andrews</td>
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<td>C105: Basic Tile &amp; Coping</td>
<td>Greg Andrews</td>
<td>1:00</td>
<td>C209: Cementitious Pool Finishes</td>
<td>Randy Dukes</td>
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<td>C210: Proper Installation With a Comprehensive Plan (DID)</td>
<td>Nate Mullen</td>
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<td>C211: Design, Install and Documentation</td>
<td>Paolo Benedetti</td>
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<td>C106: Concrete Decking</td>
<td>Paolo Benedetti</td>
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<td>C212: Site Evaluations &amp; Field Instruments</td>
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<td>C213: Efficient Installations: Equipment, Controls &amp; Under-water Speakers</td>
<td>Paolo Benedetti</td>
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<td>C107: Pre-Plaster Preparation</td>
<td>Paolo Benedetti</td>
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<td>C214: Designing and Installing Underwater Windows</td>
<td>Jason Jovaag</td>
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<td>C108: Cementitious Pool Finishes</td>
<td>Randy Dukes</td>
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<td>C215: Commercial Pools &amp; Waterparks</td>
<td>Scott Hester</td>
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<td>C109: Startup, Punch List &amp; Project Closeout</td>
<td>Paolo Benedetti</td>
<td>2:00</td>
<td>C216: Project Profiles - An Interactive Discussion on Design and Construction</td>
<td>SWD Masters</td>
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<td>C111: Genesis Position Statements - An Interactive Discussion</td>
<td>David Peterson, Bill Drakeley, Steve Gutai</td>
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<td>C217: Collaborative Project Profiles</td>
<td>Kate Wiseman, Skip Phillips</td>
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<td>C301: Advanced Site Work &amp; Forming</td>
<td>Paolo Benedetti</td>
<td>2:00</td>
<td>C401: Advanced Watershape Construction</td>
<td>Includes E301 - 306 and C301 – 307 David Peterson, Greg Andrews, Kevin Ruddy, Les Reed Paolo Benedetti, Terry Brannon, William Drakeley</td>
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<td>C302: Architecturally Integrated Watershapes</td>
<td>David Peterson</td>
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<td>C402: Best Practices for Cast-In-Place Concrete Construction as Designated by the ACI</td>
<td>Gene Brown</td>
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<td>C303: Concrete Science</td>
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<td>C403: Best Practices for Shotcrete Construction as Designated by the ASA and ACI</td>
<td>William Drakeley</td>
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<td>C304: Fire Elements</td>
<td>Paolo Benedetti</td>
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<td>C305: Glass Tile Installation</td>
<td>Greg Andrews</td>
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<td>C405: Clear Glass Tile Installation</td>
<td>Greg Andrews</td>
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<td>C306: Details - Innovative Aesthetic &amp; Technical Solutions</td>
<td>Paolo Benedetti</td>
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<td>C406: Pool Shell Cracking</td>
<td>William Drakeley</td>
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<td>C307: Construction at Difficult Sites</td>
<td>Bill Drakeley</td>
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<td>C308: The Beauty of the Edge - The Definitive, Internationally Acclaimed Vanishing Edge &amp; Water-in-Transit Design</td>
<td>Brian Van Bower, Skip Phillips</td>
<td>2:00</td>
<td>C408: Construction Techniques for a Vanishing Edge Pool</td>
<td>Bill Drakeley</td>
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<td>C309: The Beauty of the Edge – Vanishing Edge, Grass Edge, and Perimeter Overflow Pools Part 2 – with Project Specific Examples</td>
<td>Brian Van Bower</td>
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<td>C323: Outdoor Kitchen Construction</td>
<td>Paolo Benedetti</td>
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<td>C433: Advanced Shotcrete Technologies</td>
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<td>B101: Operating Philosophies, Plans &amp; Procedures</td>
<td>Greg Howard</td>
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<td>B102: Marketing &amp; Lead Cultivation</td>
<td>Greg Howard</td>
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<td>B104: Ki is Key - Developing and Maintaining a Positive Powerful Presence</td>
<td>Brian Van Bower</td>
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<td>B202: Benchmarking &amp; The Game of Work</td>
<td>Greg Howard</td>
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<td>B106: Design &amp; Construction Agreements</td>
<td>David Peterson, Skip Phillips</td>
<td>2:00</td>
<td>B204: You Can Be Better</td>
<td>Brian Van Bower</td>
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<td>B108: How to Find and Work with a Landscape Designer or a Good Pool Contractor</td>
<td>Brian Van Bower, Chuck Hess</td>
<td>2:00</td>
<td>B206: Business Licenses, Regulations, and Insurance</td>
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<td>B111: Genesis Lifestyle Programs</td>
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<td>B211: Genesis Family Reunion &amp; Winemaker Dinner</td>
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<td>B121: Book Signing</td>
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<td>B161: Customer Service the Nordstrom Way</td>
<td>Greg Howard</td>
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<td>B251: Teaching Employees to Think Like Owners</td>
<td>Scot Hunsaker</td>
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<td>B261: Coaching to Win</td>
<td>Bill Kent</td>
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<td>BUSINESS 262: Strong Company Culture Reaps Strong Profits</td>
<td>Bill Kent</td>
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<td>B271: Project Management</td>
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<td>B302</td>
<td>Pool Project Sales &amp; Design, The Interview</td>
<td>Brian Van Bower</td>
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<td>B402</td>
<td>The Art in Closing More Deals - Rethinking the Sales Process</td>
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<td>B403</td>
<td>Retail - 3 P's of Retailing to Increase Profit</td>
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<td>B304</td>
<td>Rich or Poor, It's Good to Have Money</td>
<td>Brian Van Bower</td>
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<td>B306</td>
<td>Elements of Litigation</td>
<td>David Peterson, Skip Phillips</td>
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<td>B308</td>
<td>Attracting and Working with High-End Clients</td>
<td>Brian Van Bower, Skip Phillips</td>
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<td>Company Valuation &amp; Exit Strategy</td>
<td>Greg Howard</td>
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<td>B331</td>
<td>Job Costing for Profit Versus Existence</td>
<td>Brian Van Bower</td>
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<td>B431</td>
<td>Markup &amp; Profit for Pool Builders</td>
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Design Programs

Learning objectives and brief narratives highlight the key elements of our programs but if you need more specific information, please contact us and we will be happy to help provide more detail. Note that some program descriptions are not included if they are not scheduled.

DESIGN 101: Introduction to Perspective Drawing

Learning Objectives:
- Identify the basics of drawings, skills, details, and presentations.
- Discuss plan attributes: Plan view, elevations, sections, details and lettering.
- Explain related techniques: drawing orthographic projections.
- Explain Linear Perspective: one and two-point, creating the illusion of depth.

This one-day class introduces basic technical drawing skills for anyone pursuing a career in the construction industry. These techniques will give students the ability to draw 3 dimensional objects on a 2 dimensional plane, creating the illusion of depth. Good visual communication can make the difference between success and failure and the ability to captivate a client. With great illustrations, you will drive the value of the project and be able to demand higher fees.

DESIGN 102: Sketching and Freehand Communication

Learning Objectives:
- Identify loose graphic communication to convey ideas and concepts from imagination and inspiration.
- Identify building confidence with freehand illustration techniques.
- Discuss media, line, composition.
- Explain depiction of common work elements and entourage: Landscape, Stones, Concretes, Pools.

The ability to visually communicate ideas on the fly in meetings with the client, designers and architects or on site with contractors is a must have attribute. This class will break down your inhibitions to draw in front of others and improve communication skills via loose freehand techniques. Basic tools - pencil, pen or marker and paper are all one needs for quick depiction of a concept.

Learning Objectives:
• Discuss the history of pools and how they created a culture in Southern California.
• Examine pool architecture through 4 decades of change via photos and detailed explanations.

Go back in time and sit poolside with the stars in this fun and interesting tour.

DESIGN 108: Plans, Useful Data and Attributes; a Builder’s Standpoint and Obligation

Learning Objectives:
• Identify plan symbols and attributes
• Discuss the importance of following plan directives
• Review of deviation submittals and approvals
• Analyze potential legal ramifications

How well a project can be built is limited to the quality of instructions supplied and their interpretation by the builder. Plans, whether produced in-house or by others, should abide by a common language. Understanding that language, obligations and responsibilities is key to success and profits.

DESIGN 111: Small Space Design & Construction

Learning Objectives:
• Describe small space solutions for difficult sites (small outdoor spaces, spas, indoor projects, balconies, water features.)
• Discuss the details of space-saving underground bunker equipment room installations.
• Recognize how to incorporate multiple features, combining the best of pools, spas, and water features.

This course is for builders and designers who are often faced with space restrictions in their projects. Learn the importance of design solutions, equipment placement, waterproofing, design, and construction tricks for limited, difficult, or elevated sites.
DESIGN 121: Contemporary Organic Architecture

Learning Objectives:
- Define “contemporary organic architecture.”
- Discuss how a specific site influences the design of a project.
- Describe how watershape elements are incorporated into organic architecture.
- Identify details through a series of project photos.

John Lautner, a student of Frank Lloyd Wright, and his associate Helena Arahuete developed a unique contemporary organic architectural style. This program reviews multiple projects exhibiting the details and Helena will explain the process of designing these projects.

DESIGN 123: Trends in Outdoor Design

Learning Objectives:
- Define a design method for the creation of comfortable and beautiful outdoor living spaces.
- Discuss outdoor living trends and the common elements in outdoor rooms.
- Understand how to better integrate the outdoor living spaces with the water elements onsite.
- Apply these concepts to a case study in outdoor living.

Trends come and go, and by their nature, they are always changing, so why pay attention to them? By understanding design trends, we are looking at what matters to our clients at a particular time. The goal, as a designer, is to create spaces that aren’t just beautiful; they are deeply satisfying to our customers, guaranteeing a glowing referral. We will discuss the types of improvements that homeowners are willing to invest more in, where the details matter and the budgets are larger. We will look at examples of trends in outdoor living, hardscape, softscape, pools and water features.
DESIGN 124: Set Your Yard on Fire – Designing with Candles, Fireplaces, Fire Bowls and Fire Pits

Learning Objectives:
• The key to designing backyard fire features is based around the activities of the family and the intended function.
• Where will the fire feature be located and is it safe?
• What type, style, shape and size of fire feature integrates into the overall design?

The presentation will discuss landscapes with fire features that really fit the overall design. A fire feature can just be a side element in a backyard, like an afterthought, or it can complement the landscape design and the family’s activities. A variety of fireplaces, fire pits, fire bowls and candles will be discussed that enhance the overall outdoor experience.

DESIGN 131: Identifying New Business & Design Trends

Learning Objectives:
• Examine the ways to capture, process and analyze design trend signs.
• Recognize the evolution of design trends and explore inspirations that influence today’s design.
• Identify market strategies and innovative ways to reach a new audience.
• Identify the ever-changing consumer and how design influences their purchasing decision.
• Examine the latest look in home design and colors.

With his finger on the pulse of design trends from iPhones to interior design, Feras Irikat will explain why things look the way they are and how that affects your purchasing decisions at a subconscious level. These trends run across multiple product and project categories including automobiles, tile blends, and how mixing finishes and styles can be done in an eclectic, but tasteful way.
DESIGN 141: Better Landscape & Watershape Lighting

Learning Objectives:
- Discuss how lighting responds to varying needs from one area to another within a site.
- Recognize lighting changes from day to night, from one season to another, and over the years as landscapes mature.
- Interpret how visual composition varies from one person to another.
- Identify how to visually connect the landscape, water environment, and interior spaces of the home.

Moyer shares her expertise in lighting to connect several environments (indoor, outdoor, water, etc.) with attention to the multiplicity of needs and dynamics of light throughout the hours, seasons, and years of a project. Learn how landscape spaces change from one view, viewing location, or perspective to another. Control the lighting design to achieve certain effects and get inspired with some photos of beautiful lighting work.

DESIGN 151: Water Works: The Keys to Designing State-of-the-Art, Award-Winning Water Features

Learning Objectives:
- Identify the role of the design and engineer professionals as a collaborative design effort with landscape architects, engineers, and pool contractors.
- Discuss how to integrate the proper infrastructure for water features and pools to achieve form and function.
- List reliable strategies for long term sustainable maintenance of water features.
- Examine project details, photos, and the collaborative effort that resulted in the desired effects.

Water elements within a landscape need to reflect the environmental, cultural, and historical context in which they exist and take advantage of cutting-edge resources. High design and new technology are best achieved through an early collaboration between landscape architect, engineer, and pool contractor. Explore the principals and practices of designing, sourcing, and constructing sustainable and beautiful water features, pools, and spas, with industry leaders who will share lessons learned and explain their collaborative process.
DESIGN 161: Innovative Natural Watershape Design

Learning Objectives:
• Recognize natural and living pond and stream design and construction.
• Identify what makes a natural project look real or contrived.
• Identify liners, plumbing details, materials and methods of construction.
• List project photos, renderings, and drawings.

Truly natural looking watershapes are difficult to build without the knowledge and expertise of these two instructors. Both Archer-Wills and Duensing operate their own companies that have excelled in natural water elements for many years. Learn their secrets and find out how to make your next natural project look real considering the unique edge details, scale of the project, rock placement, plants and boulders, and water filtration via Mother Nature.

DESIGN 162: Designing Water Features From Whimsical to Wild

Learning Objectives:
• Recognize the importance of nature as the best instructor.
• Identify many instances whereby improvements can be made in quality, efficiency, and cost effectiveness.
• List a number of “turn-key” techniques.
• Review construction considerations.

Maximize on the potential of the property to create beautiful, dramatic water gardens. Enhance the existing space and realize its potential for recreation, excitement or indeed tranquility. Examples will be shown of naturalistic projects that are low in maintenance and running costs and use native plant material for the landscape and purification of the water. Construction techniques of swimming ponds, wildlife and filtration ponds together with streams, waterfalls and grottoes will be illustrated and discussed.
DESIGN 165: From the Beginning with “The Master” Anthony Archer-Wills

Learning Objectives:

• Discuss pond plan development
• Develop pond and water feature concepts
• Identify opportunities to incorporate nature into a waterscape

To inspire and entertain Pool Builders new or experienced in the trade, Anthony Archer-Wills of Animal Planet’s The Pool Master, will present a unique look at his 50 years in the pond and pool business. The presentation will illustrate an exciting and even humorous way of how Anthony’s career has developed from the simple, slightly lopsided, concrete pond to elaborate schemes involving caves, grottoes, waterfalls, huge rock escarpments and tranquil lakes.

DESIGN 173: Architectural Style Series: European

Learning Objectives:

• Identify 6-8 common architectural styles.
• Discuss common characteristics, materials, and details associated with each style.
  • Define a custom style book, and its integration into client presentations.
  • Recognize significant architectural accomplishments for each style.

This course will give you a fundamental understanding of key European architectural styles, and enable you to communicate knowledgeably with your client about the style of their home. You will learn about key architects and their influence on design. Students will leave with the ability to coordinate details, and relate water elements back to the surrounding environment in an appropriate way.

Learning Objectives:
• Discuss brief biography of Frank Lloyd Wright.
• Identify Prairie Style, Usonian Style, Arts and Crafts.
• Recognize significant projects and their influence on architecture to follow.
• Identify project photos, renderings, and drawings.

This class provides an overview of the history and importance of one of America’s greatest architects, Frank Lloyd Wright. Taliesin West was Wright’s winter home, studio, and school in Scottsdale, Arizona. It is now the main campus of the Frank Lloyd Wright School of Architecture and this program is presented by a Fellow of Taliesin West.

DESIGN 176: Tour of Frank Lloyd Wright’s Home and Studio plus the Robie House

Learning Objectives:
• Discuss history of Frank Lloyd Wright.
• Review Wright’s early career and the experiences that influenced his work.
• Recognize significant projects and their influence on architecture to follow.
• Show projects, renderings, and drawings.

This tour brings students into the home and studio where Frank Lloyd Wright began his historic career. A docent will explain the history of the home and Wright’s transition from employee at a Chicago firm to the development of the Prairie style of architecture in the studio that was added to the home in 1898. A fellow-architect described the studio as a workplace with “inspiration everywhere.” After we get inspired, we will get lunch and finish up with a tour of the Robie House at the University of Chicago.
DESIGN 179: Working with Architects

Learning Objectives:
- Discuss how individuals become Architects: schooling, licenses, continuing education, etc.
- Review approaches from different schools. Design, technical, worker vs. principal.
- Discuss Who’s the Boss: employed by the Architect vs. employed by the Owner.
- Identify Past the water, doing a design that includes the yard: landscaping and other features.

While designing a house, an architect may employ a watershape designer/contractor and his design ideas may overflow into the design of the watershape. The architect may give details to be followed in the pool design or the architect may request that the watershape designer take on the full responsibility of the pool and either deal with the architect or possibly the owner. This seminar will provide insight into working with an architect and concepts to working together.

DESIGN 181: Major Renovation of Pools – Design and Construction Considerations

Learning Objectives:
- Discuss examples of major renovations.
- Identify before, after, and construction photos and drawings.
- Recognize how a relatively inexpensive re-tile and re-plaster project can turn into a six-figure renovation.
- List construction considerations, limitations of existing vessel, site, and soils.

Major renovation goes well beyond updating tile, plaster and equipment of an existing pool. The shape of the pool can change, elements such as a spa are added or removed and the finished product can be unrecognizable from the original. Learn how to apply design strategies and to identify architectural elements that offer creative opportunities to a holistic design approach to the swimming pool environment and beyond. There is also an engineering-focused presentation on renovations: ENGINEERING 181: Major Renovation of Pools – Structural and Hydraulic Considerations.
DESIGN 201: Measured Perspective Drawing

This course is no longer offered by Genesis. However, if taken, it can be used as a core required class for SWD Registered.

DESIGN 202: SketchUp

Learning Objectives:
- Explain 3-dimensional modeling with Google SketchUp, SketchUp Pro, and LayOut.
- Define axes, drawing tools, solids, extrusions, layers, styles, painting, 3D Warehouse, and other tools.
- Recognize plan views, elevations, sections, details, two and three-point perspective views.
- Examine modeling pools, spas, and other elements for presentation with rendering options.

SketchUp is frequently used by architects in both small offices conceptualizing residential projects as well as large international firms designing commercial developments on a grand scale. The strength of the application is the intuitive interface and modeling simplicity while maintaining dimensional accuracy. Using their own laptop computers, students work through a series of instructional exercises and development of a pool project.
DESIGN 203: AutoCAD

Learning Objectives:
- Explain basic drawing and modification tools for 2-dimensional AutoCAD design.
- Define axes, drawing tools, layers, item properties, and other tools.
- Recognize plan views, elevations, sections, details, model space, paper space, and file management.
- Examine designing pools, spas, and other elements for presentation.

Autodesk is the worldwide leader in software development for the architecture, engineering, construction, and film studio industries. AutoCAD is their flagship design application and this 2-day program introduces the basics so that each student can begin to communicate digitally with architects, engineers, and the building trades. The strength of the application is the universal use among professionals and the ability to reference multiple files so that a watershape designer can simply overlay their work on files provided by others such as topographical surveys, site plans, and other consultants’ work product. Using their own laptop computers, students work through a series of instructional exercises and development of a pool project.

DESIGN 204: Pool Studio

Learning Objectives:
- Explain 3-dimensional modeling with Structure Studios’ Pool Studio.
- Develop a successful 3D presentation.
- Identify advanced details, including perimeter overflow, vanishing edge, and acrylic walls.
- Operate with advanced audio visual presentation techniques using additional software.

Pool Studio’s 3D design program can be taken one step further when combined with additional software to create an amazing presentation for your discerning clients. Learn how to go from novice user to a detailed professional presentation. Includes tips and tricks for intermediate users. Using their own laptop computers, students work through a series of instructional exercises and development of a pool project. At this time, Pool Studio can only be utilized on a PC system.
DESIGN 211: Elements of Design

Learning Objectives:
- Discuss fundamental Elements (e.g., line, color and form) and Principles (e.g., unity, balance and scale) of design.
- Define perceptual skills and a better understanding of spatial organization and spatial relationships.
- Use these concepts to design beautiful spaces that connect with the surrounding environment.
- Use your communication skills to accurately portray your design intent to the client.

This course is an introduction to the fundamentals of good design and will teach you how to lay out the different improvements in your projects (e.g. pool, spa, patio, etc). We will break the fundamentals down into two categories: the Elements of Design and the Principles of Design. Once you have a good grasp of the fundamentals, you will learn how to apply them. We will start with short practice excises and build up to a final project: creating a master plan that includes a pool and spa.

DESIGN 221: Water in Architecture

Learning Objectives:
- Generate creativity with sample designs, construction and technical details.
- Identify how to create a successful collaboration between water designer and architect.
- Define the water feature consultant’s role and where their expertise should start and stop.
- Discuss how to build a design team and a construction team.

Helena Arahuete will explain how her architecture firm, Lautner Associates, developed design and construction teams to develop unique and complicated projects. The success of those projects was the result of detailed coordination and collaboration with a multitude of experts, including hydraulic and structural trades specific to the water features.
DESIGN 222: Define Landscape Design Around Water Features

Learning Objectives:
- Generate creativity with example projects featuring pools, fountains, and stream beds.
- Identify how to integrate water features into a garden design.
- Discuss how to present water features to your clients.
- List ways that water features add both beauty and function to the landscape.

Successfully integrated water features can take an ordinary space and transform it into an extraordinary experience that transcends ones expectations.

DESIGN 223: Define Landscape Design Around Your Patio

Learning Objectives:
- Generate creativity with sample designs featuring patios.
- Identify how to integrate patios and patio surfaces into a garden design.
- Discuss how to use details such as raised beds, pottery, furniture, and other elements.
- List ways to blend materials that will soften the overall look.

Learn how to combine a variety of materials around different types of patios and patio surfaces to complement the appearance and enhance one’s enjoyment of the space.
DESIGN 231: Color Theory & Its Application

Learning Objectives:
- List light, vision, and color physics, color theory, primary colors, mixing, blends, color wheel.
- Discuss color psychology, how color affects the viewer, influences of color and texture on purchasing decisions.
- Understand the makeup of a color DNA and the ability to reproduce and match colors.
- Understand the meaning of the color illusion and work through case studies analyzing how color can make or break the design concept.

Looking through a magazine of pools, it is easy to find well-conceived plans that failed to unify the design with proper material and color selections. Color is one of our basic means of communication and it influences our emotions so it must be understood and controlled. This program introduces the basic dynamics of color, its principles, fundamentals, its psychology, and how to apply the science to project design.

DESIGN 241: Landscape & Watershape Lighting

Learning Objectives:
- Use lectures, demonstrations, presentations, and hands-on field work over a 5-day period.
- Use real products to build a real lighting design using the techniques presented in class.
- Discuss technical issues such as voltage, wattage, color, lumens, etc.
- Examine equipment from wiring to transformers to light fixtures.

This is an intensive 5-day, 5-evening program that will cover just about all aspects of outdoor lighting. It is learn-by-doing at its finest, led by Moyer and her team of instructors in Albany, NY. The program covers technical subjects such as electrical and heat considerations, as well as equipment details from time clocks and transformers to water-resistance and maintenance.
DESIGN 261: Natural Streams & Ponds

Learning Objectives:
- Recognize “Living” water feature concepts, biology, ecology, clarity, design, and construction.
- Discuss site evaluation, design considerations, natural and planned elements.
- Discuss mechanical, biological, bio-mechanical filtration, sterilization, circulation, equipment.
- Describe liners, concrete structures, art and physics of rock selection, acquisition, and authentic placement.

This is the most in-depth and practical course on “living” water systems offered anywhere. Presented by Anthony Archer-Wills and David Duensing, two leading experts in the field of natural streams, ponds, Koi ponds, water gardens and the use of natural stone, this program steps through the various technical and artistic considerations of recreating authentic environments that perform as mother nature would. The program includes various construction materials and methods and the subsequent decision process to select the most appropriate for a specific project. Examples of conceptual and construction drawings will be provided.

DESIGN 262: Water Features: A Custom Builder’s Tips and Tricks

Learning Objectives:
- Discuss water feature design.
- Describe water feature construction.
- List pitfalls and problems to avoid.
- Discuss water feature sales and marketing tactics.

Learn design and construction tips for custom residential water features. Tips include waterproofing, flow rates, and aesthetics. Incorporate fire and water, waterfalls, wet walls, laminar streams, foam jets, vanishing edge, perimeter overflow, runnels, courtyard fountains, indoor water features, underground bunkers, valve performance, and acrylic panels you’re your designs. Also, learn what to avoid and then “wow” your clients with your presentation.
DESIGN 271: 20th Century Architectural Styles

Learning Objectives:

- Review design styles through the 20th Century. Includes Arts and Crafts, Prairie Style, California Bungalow, Bauhaus, Art Deco, Zig-Zag modernism, New England salt boxes, Ranch style, Mid-Century Modern, Brutalism, Post-Modernism, and others in the US and overseas.
- Introduce Important Landscape Architects from US and Europe. Discuss their ideas and principles. Show examples of their designs on paper and how they were planted around the buildings.
- Discuss the significance of changes in style and review key examples of these styles.
- Describe the key principles of various styles and how to coordinate watershape design with architecture.

Understanding the architecture of both built structures and the surrounding landscape will enable watershape designers to coordinate details and relate the water elements back to the surrounding environment in an appropriate way. It is easy to find examples of pools that clearly do not reflect the style of the home. They are usually the result of a production-type builder that is only comfortable replicating the same pool they have built many times.

However, when the pool is well-designed to match the home’s architecture, the effect can be breathtaking and add real value to the property. This process can only begin after a basic understanding of architectural styles - the palette from which we draw from. These pools not only reflect the home but also the surrounding landscape.

DESIGN 272: Architectural Style Series: Modernism & Mies van der Rohe

Learning Objectives:

- Discuss brief biography of Ludwig Mies van der Rohe including his direction of the Bauhaus and the Illinois Institute of Technology.
- Identify Modernism architecture.
- Recognize significant projects and their influence on architecture to follow.
- Identify project photos, renderings, and drawings.

This class provides an overview of the history and importance of one of Germany’s and America’s greatest architects, Ludwig Mies van der Rohe. Often associated with the aphorisms, “less is more” and “God is in the details”, his use of modern materials and simplified architecture had a permanent impact on most architecture to follow. Learn about van der Rohe’s influence and how many of our current watershape projects are guided by his principles.
DESIGN 275: Architectural Style
Series: American Arts and Crafts, Architects Greene and Greene

Learning Objectives:
• Discuss the Arts and Crafts movement, the lives and work of architects Charles and Henry Greene, and their collective impact on American design throughout the 20th century.
• Identify Craftsman-style bungalows, landscape designs of the period, and related architectural styles from the early 20th century.
• Recognize houses designed by Greene and Greene, and understand how they differ from other examples of the Craftsman style.
• Discuss and recognize landscapes designed by the Greenes, including early water-element designs from the 1910s and 1920s.

This class will provide an overview of the American Arts and Crafts movement, including a summary of its roots in England, and will focus particularly on Charles and Henry Greene, architects who gave the movement its most sophisticated and sought-after expressions in home building and garden design in the early 20th century. We will trace the evolution of their work, from its early adherence to the prevailing Craftsman aesthetic to their unique, interpretation of Japonism and structural expressiveness in designs tailored for the California climate, topography and lifestyle. We will also look briefly at examples of 21st-century projects inspired by the Greenes’ work of a century ago.

DESIGN 292: Retailing at the Highest Level

Learning Objectives:
• Discuss theme and structure to break down the store into organized units and a sequential customer experience.
• List considerations for product placement and visual communication.
• Identify ways to engage the customer with comfort, quality, and a social experience that they cannot get online.
• Review and compare good design versus bad design via photos and before and after images of make-overs.

Brick-and-mortar stores as warehouses of products for sale are becoming obsolete. Retail has been redefined as a “customer experience” where inspiration and excitement are invoked to drive sales in a socially captivating (pull up a stool at the Apple Store “Genius Bar”) and relaxing atmosphere using specific design elements. If the first sight and smell in your store is the chlorine display then you are doing it wrong!
DESIGN 301: Marker Rendering

Learning Objectives:
- Use markers, Prisma color pencils, templates, assorted tools and media.
- Design plan views and perspective views.
- Design and render water, reflections, plants, rocks, shadows, and other materials.
- Plan and develop professional client presentations.

Despite the photo-realistic capability of some computer software programs, there is a certain quality about hand-rendered drawings that continues to make them a competitor in the presentation arena. Maybe it’s that the softness leaves the client with more to imagine and they can fill-in the blanks with their own view of how the space will be used. Or maybe it’s that it just looks like a lot more time was put into it than the computer version of the same. Either way, this class will provide you with the tools to develop beautiful marker renderings for presentation.

DESIGN 302: Digital Rendering with SketchUp

Learning Objectives:
- SketchUp styles, sketchy lines, shadows, view considerations.
- Discuss photo-realistic rendering programs (3rd party applications).
- Discuss lighting sources, submerged lighting, background lighting, lighting adjustments.
- Use material textures, reflectivity, matte finishes, water surface texture, transparency.

SketchUp, an amazing three-dimensional modeling system, has some built-in presentation capabilities. But, if you want to move beyond the integrated styles and render with photo-realistic capabilities, then a 3rd party application is your solution. This class will show you how to position the model of your project for the best visual impact, and then make the appropriate adjustments in materials and properties to produce the most realistic looking view of the finished project. DESIGN 202 is a prerequisite for this program. A 64-bit laptop with 8 GB of RAM is recommended.
DESIGN 311: Creating a Cohesive Design Concept: Materials, Details, Color, and Style

Learning Objectives:
- Apply color theory and color psychology to selecting materials and finishes.
- Discuss common outdoor materials, their properties, and how/when to use them.
- Develop an understanding of major architectural styles and appropriately utilize their iconic details.
- Discuss five methods for creating a design aesthetic: how to develop the “look” of your project.

An aesthetic is a visual theme, “the style” or “the look” of a project. In this course, we will take the mystery out of creating a successful design aesthetic, selecting materials and finishes, and aligning the details of the design with the overall look of the project. We will discuss color theory and its application, with plenty of tips and tricks for working with color. You will try out five practical methods for creating a design aesthetic, and the class will culminate with a final project: creating a full palette of materials and assembling them on a vision board to present to a client. This course is an excellent complement to DESIGN 211: Elements of Design and DESIGN 231: Color Theory & Its Application.

DESIGN 322: Audible and Visual Considerations of Water Feature Design

Learning Objectives:
- Discuss acoustics and their effect on the auditory senses.
- Describe how water features are sometimes used to mask things like road noise and other acoustical pollution.
- Identify tranquil and pleasing water noise and show how they are generated.
- Identify loud and jarring water noise and what to avoid.

Acoustics play a key role in the experience and ambiance of any space. Big waterfalls or sheets of water falling only a few feet can often result in loud and uncomfortable noise – especially when located in a courtyard or other space with hard surfaces that reflect and enhance those sounds. While some design elements may seem appropriate architecturally, they may fail acoustically. On the other hand, the calming effect of trickling water or the white noise of a larger feature may be the desired effect and used strategically to mask other unwanted noise pollution. Find out how water affects the auditory senses and how you can control it.
DESIGN 323: Outdoor Kitchen Design

Learning Objectives:
- Apply proven indoor kitchen design principles that have been translated to the specific needs of the outdoors.
- Identify and avoid the most common outdoor kitchen design mistakes.
- Evaluate client cooking and entertaining needs and translate them into successful designs.
- Immediately put into practice specific and actionable recommendations for kitchen layout, including work space, storage space, equipment placement, seating and more.

This course covers the key principles of outdoor kitchen design with a focus on creating usable spaces that are easy to live with. It will help you expand your expertise and serve clients in one of the biggest trends in outdoor living. Covering the four primary types of outdoor kitchen construction, attendees will learn the key functional design principles for kitchen layout, including prep areas, storage, and equipment placement. Faulk will share specific and actionable guidelines that have been developed through years of experience with outdoor kitchens and are founded in some of the best practices for indoor kitchen design.

DESIGN 341: Submerged Lighting

Learning Objectives:
- Explain luminous intensity, color temperature, lens angles and other physical parameters of submerged lighting.
- Review usage of watts, lumens, Lux, candelas, foot-candles, and other metrics to size and quantify the number of lights.
- Review codes for both illumination and electrical safety.
- Illustrate practical examples for submerged lighting design.

Lighting has changed dramatically in the last few years. When 99% of pools used incandescent lighting it was easy to use “watts per square foot” as a common metric for lighting design. However, LED technology has made that method obsolete and the new technologies have solved old problems like power consumption and large size but introduced new concerns such as color temperature and luminous intensity. This program will give you the tools to design better submerged lighting with a new set of design parameters and product specifications.
DESIGN 345: The Art of Landscape / Architectural Lighting and How to Paint a Lighting Portrait

Learning Objectives:
- Discuss the fundamental of lighting (how the eye works and why we care, glare, levels of light, apparent brightness, contrast: negative and positive spaces).
- Discuss how lighting creates space.
- Examine the good, bad and the ugly of lighting.
- Define the structure of a lighting portrait (design strategy, sense of purpose of fixture placement, visual objectives and concept).

How well a project can be lit is not limited to the quantity of light fixtures. A proper lighting job takes what it takes. Covering key principles on how to create depth and visual destination, this course is an introduction to the fundamentals of lighting and will provide tools to comprehensively design a great lighting portrait.

DESIGN 351: Dry-Deck Fountain Safety

Learning Objectives:
- Identify dry-deck sanitation issues and explain solutions.
- Describe ocular and soft tissue damage concerns, research, and preventative considerations.
- Recognize toe entrapment problems and identify solutions.
- Discuss design options to improve overall dry-deck fountain safety.

Municipal codes are evolving to accommodate the higher risk of public health and safety associated with dry-deck water features. Sanitation is difficult where high bather loads overload relatively small surge basins but this program presents solutions. Also, research developed by Crystal Fountains and a University of Virginia professor that specializes in ocular damage studies will be presented to show how injuries can be reduced.
DESIGN 361: Waterfall Design & Construction

Learning Objectives:
- Discuss sizing and placement of the waterfall(s) within the defined space.
- Describe designing and construction of the actual waterfalls and grottos.
- List stone selection, organization, and installation techniques.
- Review detailing the waterfall for acoustics as well as day and nighttime visual effects.

This course will take a student through the entire process of designing and constructing natural stone waterfalls in landscape environments as well as alongside swimming pools. Details regarding interactive opportunities as well as the visual and audible aspects to enhance the client’s environment will be discussed.

DESIGN 363: Design Considerations for Commercial Water Features

Learning Objectives:
- Identify visual and emotional impact of water features.
- Review water effects and rules of thumb for their use.
- Define the physics of water.
- Discuss where does the equipment go and why do you care and discuss water quality and debris management.

The purpose of this course is to educate professionals interested in adding a commercial water feature to a landscape or building design. The information presented will generate a list of questions that should be addressed when considering a water feature for your project.
DESIGN 371: Remodel Candidate – Opening the Door to Possibilities

Learning Objectives:

- Reassess perceived site limitations.
- Learn to identify design influences and spatial relationships.
- Identify material considerations, merging the old with the new.

When presented the opportunity of a remodel prospect, what are the site limitations and/or attributes? To see beyond the norm and motivating your client through good communication, both are key to increasing your scope and budget. This program reviews multiple projects, exploring their perceived limitations and attributes. Michael will discuss his point of view and inspiration of each project presented.

DESIGN 404: Creating Digital Presentations

Learning Objectives:

- Discuss digital photography, conversion of film to digital format, file formats.
- Discuss photo editing considerations, brightness, contrast, color, composition.
- Discuss photo stitching, slide show assembly, image transitions, text, audio, timing, delays.
- Explain distribution options, file size considerations.

In this day and age it is expected that your images are not presented in a ten-pound photo album, but rather in a digital format that can be viewed online or via DVD. Production companies charge thousands of dollars to assemble videos that you can do with inexpensive, or even free, software. This hands-on program will show you how to create a modern presentation of your work in a movie format. Intermediate to advanced computer knowledge is required for this class.
DESIGN 411: Integrating Manufactured Pools Into a Master Plan

Learning Objectives:
- Review the Principles of Design, Quick Sketching Techniques, and “Mind-Reading”
- Create a scaled base plan on site (quickly).
- Convert a scaled base plan into a rendered master plan showing the swimming pool, living spaces, and circulation.
- Analyze the strengths and weaknesses of your master plan with an in class presentation.

Through a series of exercises, you will learn how to integrate a manufactured pool into a master plan. You will learn how to quickly render the plan on site and include relevant information so it communicates well to the customer. By being able to show the client exactly what they will be getting, you can eliminate a major obstacle to closing the sale. Give the customer the ability to visualize how the product will fit into their own yard.

DESIGN 412: Advanced Design Skills

Learning Objectives:
- Illustrate Improved client communications, mind reading, facilitative listening.
- Explain expedited design: methods for producing designs more quickly.
- Describe the design consultation: a completed design in two hours.
- Discuss fast rendering options, a toolbox of quick techniques for communicating your ideas to a client.

This course is aimed at students who have taken DESIGN 211: Elements of Design, and are looking to push their design and client communication skills to the next level. Learn the Practical tools for choosing colors, materials and working with a design aesthetic. Make design work for your business.
DESIGN 423: Outdoor Living: How to Create Beautiful and Comfortable Outdoor Rooms

Learning Objectives:
• Discuss trends in outdoor design and how these trends come about.
• Understand how design trends can give us a tool for better understanding the wants and needs of our customers.
• Cover emerging styles and what you need to know to apply them.
• Explore why a solid understanding of trends is necessary for achieving excellence in our profession.

Outdoor living is the perfect way to add usable square footage to a home by extending the living spaces outdoors. A well-designed outdoor living room, dining room, or kitchen can add value to a home and add functionality to a backyard. But what does it take to design a beautiful and comfortable outdoor room? We will discuss the elements to take into consideration, with plenty of designer tips and tricks to get your clients living al fresco. You will learn methods that will help you determine layout and location of site improvements, how to tie the outdoor living spaces together with the water elements on site, as well as the creation of aesthetics and style for outdoor living elements. We will also discuss up-and-coming trends in outdoor living.

DESIGN 461: Waterfalls for Swimming Pools and Landscapes

Learning Objectives:
• Identify and evaluate the site as well as the client’s goals
• How to determine the best sizing and placement of the waterfall
• Preparation of the site and or swimming pool structure
• Construction of the actual waterfalls and grottos
• Detailing the waterfall for visual and audible effects

This course will focus on designing and constructing residential and commercial waterfalls for swimming pools, landscapes and intimate gardens. Critical design and construction details will be explained as well as how to develop and control crucial audio and visual elements.
ENGINEERING 101: Basic Pool Hydraulics

Learning Objectives:
- Discuss the introduction of physics of water including pressure, flow rate, velocity, energy, friction, etc.
- Discuss Total Dynamic Head (TDH), system curves, pump curves and selection.
- List code limitations and recommended design parameters for safety and efficiency.
- Explain construction details for plumbing and equipment.

This module introduces basic hydraulic considerations and provides the student with a series of construction details. It is not designed to enable students to complete TDH analysis or design complicated systems. It also does not address gravity systems or water-in-transit systems such as vanishing edges and slot-edges. The primary focus is construction considerations of basic pools and spas. Gravity systems are introduced in ENGINEERING 301: Basic Gravity Plumbing. For a thorough education in hydraulics see ENGINEERING 211: Basic Fluid Engineering and ENGINEERING 311: Advanced Fluid Engineering.

ENGINEERING 102: Geotechnical

Learning Objectives:
- Discuss soil mechanics, bearing capacity, lateral pressures, compaction, settlement, differential settlement.
- Explain soils report requirements and interpretation.
- Examine code requirements and best practices for soil design and engineering.
- Compare excavation, trenching, shoring, and other construction considerations.

Geology is the foundation of every structure. Prior to structural design and engineering, it is imperative that a geologist or soils engineer provide criteria and recommendations to address issues such as bearing capacity and lateral loads. This module explains the role of geotechnical science and the implications of ignoring issues such as settlement, differential settlement, expansive soils, corrosive soils, liquefaction, slip-planes, seismology, and other problems. Consolidation, soil stabilization, and other advanced forms of soil preparation are discussed in ENGINEERING 302: Soil Stabilization.
ENGINEERING 103: Structural

Learning Objectives:
- Define compression, tension, and shear forces, bending moments, live and dead loads.
- Describe reinforcing steel design, details, and installation.
- Discuss concrete compressive strengths and design details.
- Examine code requirements of ACI 318, ACI 350, ASA, and the IBC.

Watershape vessels must resist geologic forces and maintain a leak-free shell. The purpose of this module is to provide a basic understanding of structural design and detailing so that mistakes are avoided during construction. It is not the intent of this module to teach structural engineering. Understanding basic concepts such as the difference between a soil-retaining wall and a free-standing wall may make the difference between project success and complete structural failure. Advanced foundation design for caissons, timber piles, helical piles, auger-cast piles and other foundations are introduced in ENGINEERING 303: Pier & Beam Foundations.

ENGINEERING 104: Electrical

Learning Objectives:
- Examine voltage, current, frequency, single-phase, three-phase power, variable frequency drives.
- Identify electrical design, conduit, wire, and breaker sizing.
- Examine code requirements of NEC Articles 680 and 682.
- Discuss equipotential bonding, grounding.

Safety is complicated but paramount in and around water. Inadequate grounding or bonding will create potentially deadly shock hazards while undersized conduits, wire, or branch-circuit protection cause fire. The electrical engineering module explains the key parameters for basic electrical design and details for equipotential bonding and other construction details. Particular attention is given to the long list of requirements established in Articles 680 and 682 of the National Electric Code.
ENGINEERING 121: Natural Swimming Pools – The Pool Reinvented – Plants Instead of Chemicals

Learning Objectives:

- Discuss Natural Swimming Pools/Ponds (NSPs) and the history behind introducing this technology to the North American landscape.
- Understand principles of biological filtration and how an NSP is different from chemically-sterilized pools.
- Discuss design aesthetics and basic construction fundamentals.
- Discuss different types of NSPs in accordance with German standards.

Natural Swimming Pools (NSPs) are 100% chemical-free constructed wetland ecosystems in which all clarification and purification of the water is achieved with biological filtration. Developed in Europe over 25 years ago, NSPs are just now starting to gain foothold in the U.S. This program introduces the five (5) different types of residential NSPs in accordance with German standards as well as examples, diagrams, and photos of the various types. The science of biological filtration and microbiological standards will be discussed to demonstrate how NSPs ensure the health and safety of swimmers.

ENGINEERING 171: Basic Pool Chemistry and Stain Control

Learning Objectives:

- Discuss basic pool chemistry.
- Identify stains and the factors that cause them.
- Discuss stain removal and water chemistry adjustments.
- List ways to prevent stains.

Whether you are a service professional or a retailer trying to help a desperate customer, you will undoubtedly be challenged by an environmental issue that causes staining in a pool. It could be caused by the normal water chemistry being out of balance so this program starts with the basics and then focuses on several stain identification, removal, and prevention measures.
ENGINEERING 181: Major Renovation of Pools – Structural and Hydraulic Considerations

Learning Objectives:
- Identify structural issues, reinforcing, lap splices, dowels.
- Identify hydraulic issues, equipment replacement.
- Discuss project assessment, limitations of soils and existing structure.
- Examine code requirements, International Building Code, ACI.

This presentation focuses on the structural and hydraulic aspects of a major pool renovation. Complete a shell assessment and know what to look for before you even write your proposal. See how to turn an existing pool into a deck-level slot-edge. This program is required for the Service Professional certification and there is also a design-focused presentation on renovations: DESIGN 181: Major Renovation of Pools – Design and Construction Considerations.

ENGINEERING 191: Building Efficient Equipment Pads

Learning Objectives:
- List fittings and equipment considerations that will conserve energy.
- Discuss how to appropriately size components based on the required flow rate.

This program quickly trains designers and builders on how to setup an efficient equipment pad.
ENGINEERING 192: Show Your Customer Why They Need to Upgrade Their Equipment

Learning Objectives:
- Compare the energy savings of various pieces of equipment to choose the most advantageous solution.
- List the items to look for in a field visit.
- List the questions to ask in a retail setting.
- Discuss graphical and mathematical methods for displaying options to upsell your customers.

Explaining the benefits of variable speed drives, larger filters, heater bypass lines, and new valves will quickly result in a confused customer looking for a way out. Simplifying the message with straightforward graphic and mathematical comparisons can reduce your verbal effort and get them to focus on the bottom line: saving money.

ENGINEERING 201: State-of-the-Art Spa Details

Learning Objectives:
- Identify state-of-the art details for fittings, light fixtures, safety, and comfort for in-ground concrete spas.
- Discuss advanced details for coping, tile, spillways, edges, gutters, and perimeter overflows.
- Analyze detailed calculations for filtration and jet system Total Dynamic Head.
- Identify structural considerations for rebar placement and spacing that allows for large diameter plumbing.

If you want to build concrete spas that really separate you from the competition, this class will inspire you with several unique details. Construction photos and CAD images illustrate the solutions and calculations for TDH will have you sizing the plumbing and pumps correctly. If you've ever been told that you can't overflow directly to a slot or vanishing edge, this program will show you the secrets to making it work without the risk of draining the pool into the basin.
ENGINEERING 211: Basic Fluid Engineering

Learning Objectives:

- Identify physics of water: area, depth, volume, mass, pressure, velocity, flow rate, energy, and others.
- Discuss and apply the basic principles, code limitations, and rules-of-thumb to hydraulic design to ensure performance and improve safety, energy conservation, and life of the system.
- Calculate WatershapeAdvisor® series of software worksheets, including QuickSizer for rapid pipe size selection. Also calculate Total Dynamic Head (TDH), compute electrical, and gas heating operating costs.
- Perform the complete analysis of a basic pool and spa combination with a water feature as a class project.

Every watershape requires at least a basic understanding of the hydraulic principles that make it work. This program provides a detailed foundation of understanding that enables the students to design better hydraulic systems. The software worksheets alone are invaluable. There is a detailed project worth 50% plus an online exam worth 50% of the passing score. This program is required for the SWD certification and it is a prerequisite for ENGINEERING 311: Advanced Fluid Engineering.

ENGINEERING 221: Advanced Water Purification Technologies

Learning Objectives:

- Describe chlorine, ozone, and ultraviolet sterilization technologies for the watershaping industry.
- List facts and fallacies of alternative water purification technologies.
- Outline a strategy for properly sizing ozone generators, injectors, contact tanks, and other components.
- Discuss how to market, value, and sell advanced water treatment systems.

Long after the pool is built and the excitement of this beautiful new addition to their home is completed the client is left with one ongoing issue: water quality. No matter how beautiful the water feature is, if the water quality is poor the experience is greatly diminished. Learn how to improve water quality and prevent recreational water illnesses while simultaneously reducing the chlorine and pH chemicals in the water. Provide your client with the best possible water quality for a long-term satisfied customer.
ENGINEERING 251: Model Aquatic Health Code – Design & Construction Section

Learning Objectives:
- Interpret the history, current status, and future of the MAHC’s Design & Construction module.
- List the key requirements such as plans, materials, equipment standards, aquatic venue structure, indoor/outdoor environment, recirculation and water treatment, decks and equipment, filter/equipment room, hygiene facilities, water supply/wastewater disposal, and specific venues.
- Discuss the new filtration turnover requirements and calculations.
- Describe the minimum requirements for disinfection systems such as chemical monitoring and control.

The Model Aquatic Health Code (MAHC) was developed by several volunteer teams representing various aspects of aquatics from design and construction to operations and maintenance. This program provides a brief overview of the Design & Construction section with a primary focus on the filtration turnover requirements and calculations that have advanced significantly since the MAHC began development in 2007. It is expected that health departments around the country will adopt some of these consensus-based guidelines and this class will help you stay one-step ahead of your local health department.

ENGINEERING 271: Certified Pool-Spa Operator® (CPO) Basic Course

Learning Objectives:
- Discuss certification program and exam for any professional who helps maintain aquatic facilities.
- Recognize pathogens, chemistry, oxidation, sanitization, disinfection, pH, Langelier Saturation Index, and alternative systems.
- Identify filtration, skimmers, gutters, suction outlets, and equipment function.
- Discuss maintenance, problems and solutions.

The Certified Pool-Spa Operator (CPO) program is the leading education and certification program for aquatic facility maintenance personnel, health officials, retailers, property owners, and other professionals. Learn about details from mechanical to chemical concerns and safety issues from suction entrapments to healthy water. This program is a requirement of the Service Professional certification.
ENGINEERING 281: Renovation of Fountains – Hydraulic Considerations

Learning Objectives:
- Discuss project assessment, hydraulic tests, and documentation of existing conditions.
- Identify hydraulic performance and issues, equipment replacement, and material compatibility with potential water chemistry changes.
- Explain important safety considerations, the ANSI/APSP-7 Standard for Suction Entrapment Avoidance, and unique solutions to renovation projects.
- Examine code requirements and ways to make old non-compliant projects safe.

This presentation focuses on the hydraulic aspects of fountain renovation. We will start with what to look for during the initial site visit and project assessment, and then move to a list of considerations to review during the design. Technology for water treatment and equipment has changed and we will discuss how to implement these improvements and where they should be avoided. Most importantly, safety and code compliance is key and the changes could have a detrimental effect on the project or, with some creative ingenuity, they may enhance the project.

ENGINEERING 291: Green Pool Design & Construction

Learning Objectives:
- Describe how to incorporate green design elements (resource conservation) into any project.
- Discuss green design for outdoor projects incorporating water and energy conservation.
- Discuss green design for indoor projects incorporating recycled or repurposed materials.
- Plan how to successfully integrate and market your green projects (pools, spas, water features, landscapes).

Green pool design and construction is good for the industry, good for the environment, and good for your bottom line. Differentiate your firm from the competition, design, and build top of the line energy efficient projects.


ENGINEERING 292: Energy Audits for Equipment Replacement

Learning Objectives:
- Discuss why energy audits are useful – they are not just for earning rebates!
- List the key considerations in performing accurate energy audits.
- Explain how replacement equipment can reduce energy consumption, noise, and maintenance.
- Perform energy audit analysis.

Energy audits are often required for rebate programs from government agencies and energy providers. They are also useful for properly sizing new replacement equipment. This program will walk you through the process and show you how to review a system and perform the analysis.

ENGINEERING 301: Basic Gravity Plumbing

Learning Objectives:
- Identify the physics of water moving through sloped pipes and channels, and over weirs.
- Analyze drainage system design.
- Explain recommended design parameters for gravity lines, weirs, and surge basins.
- Discuss construction details for plumbing and equipment.

This module introduces basic gravity hydraulics and provides the student with a series of construction details. It is not designed to enable students to complete water-in-transit designs or other complicated systems. The primary focus is construction considerations of gravity systems. For a thorough education in hydraulics see ENGINEERING 211: Basic Fluid Engineering and ENGINEERING 311: Advanced Fluid Engineering.
ENGINEERING 302: Soil Stabilization

Learning Objectives:
- Identify soil compaction, consolidation, stabilization, and remediation.
- Identify cement-modified soils, soil-cement base, permeation grouting, compaction grouting, void grouting.
- Describe leveling differentially settled pools.
- Discuss limitations of technology and other construction considerations.

Some soils are insufficient to support structures and pier and beam construction may not be the most practical or cost effective solution. Various soil stabilization methods may be the solution. This module provides the student with several options to consider when the geotechnical report indicates that the in situ soil is inadequate to support the structure.

ENGINEERING 303: Pier & Beam Foundations

Learning Objectives:
- Explain when a pier and beam foundation required.
- Recognize caissons, timber piles, helical piles, auger-cast piles, micro-piles, grade-beams, freestanding pools.
- List design, engineering, and construction considerations.
- Describe drilling, driving, pile driver analysis, and construction details.

Pier and beam foundations are required when soils cannot adequately support a structure or when the proximity of the structure to a slope would otherwise result in tilting or sliding. This module provides a basic understanding of structural design and detailing of foundations so that mistakes are avoided during construction. It is not the intent of this module to teach structural engineering.
ENGINEERING 304: Control & Automation Systems

Learning Objectives:
- Describe time clocks, pool controllers, remotes, valve actuators, electronic autofills, chemical controllers.
- List capabilities, including non-pool items such as landscape lighting.
- List limitations and items that shall never be connected such as fire elements and automatic safety covers.
- Discuss connection to home automation, computers, telephone, Wi-Fi devices.

Today’s consumers desire automation to help maintain their watershapes and provide convenience and status feedback. The latest hardware communicates with the owner as well as the pool service tech via the World Wide Web. This module shows off the capabilities of various systems and provides details for installation.

ENGINEERING 305: Mechanical, Venting & Exhaust Systems

Learning Objectives:
- Identify combustion air, passive ventilation, mechanical ventilation, dehumidification, exhaust systems.
- Discuss confined space, emergency egress, lighting, and specific code requirements.
- Describe noise and vibration suppression, chemical storage, leak and gas detection.
- Discuss construction details for racking equipment, compact assemblies, pipe supports, wall penetrations, etc.

High-end projects often require enclosed equipment rooms or subterranean vaults. Enclosing the equipment adds several requirements for maintaining air quality, personal safety, noise and vibration suppression, and prevention of fire and explosions from mixing chemicals or trapping heavy propane gas in a low area. This module identifies a multitude of problems and solutions for enclosed equipment areas.
ENGINEERING 306: Introduction to Indoor Pool Installations

Learning Objectives:
• Recognize the terminology regarding indoor pool applications.
• Define the scope of work to consider offering to the client.
• Describe the construction process as it differs from typical outdoor installations.
• Discuss recall construction project photos and details.

Getting involved in an indoor pool project requires an understanding of how the services provided will differ compared to that of an outdoor pool installation. There is an extensive amount of collaboration to consider as well as the fact that you must be prepared for a project that can span years. Indoor pool terminology will be discussed. Discussions regarding pool water evaporation and how to control it will also be addressed. Case study construction photos will be used to help support the learning objectives.

ENGINEERING 311: Advanced Fluid Engineering

Learning Objectives:
• Discuss advanced hydraulic, hydrology, and fluid dynamics design, including gravity systems.
• Discuss water-in-transit engineering including vanishing edges, slot-edges, gutters, and water features.
• Use WatershapeAdvisor® series of software worksheets, including surge basin design, gravity and drainage systems, channels, lazy rivers, level-bottom slot channels, and more.
• Perform the complete analysis of a vanishing edge and slot-edge pool and spa combination as a class project.

Advanced watershapes require advanced hydraulic analysis. This program pushes fluid engineering for pools, spas, and water features to a whole new level. The WatershapeAdvisor® series of software worksheets is also improved and expanded with new tools not available anywhere else. There is a detailed project worth 50% plus an online exam worth 50% of the passing score.
ENGINEERING 312: Understanding Water Current

Learning Objectives:
- Review suction outlet details and flow rates
- Develop target areas to maximize water motion
- Discuss water current options
- Analyze horsepower requirements

Whether working with a lazy river, wave pool or water park attractions, developing and working with water current can be a daunting task. Finding the proper amount of pressure, maximizing flow rates, utilizing safety grates all while maintaining water efficiency is vital in today’s growing market of commercial pool applications. This program will take you through the in-depth process and increase your understanding of water current.

ENGINEERING 321: Natural Swimming Pools

Learning Objectives:
- Identify the fundamental limnology of Natural Swimming Pools (NSPs).
- Discuss the working vocabulary for NSPs and understand the interrelationship of their systems.
- Define the microbiological standards to which NSPs are held by regulatory agencies.

This seminar begins by describing the science and engineering behind the NSPs ability to produce clarified and purified bathing water. The microbiological standards used to measure the water quality are discussed and real life examples of actual laboratory test results from operating Public NSPs are presented. The introduction of the NSP to North America from its origination in Europe is addressed with an update on the current status of both residential and Public NSPs in the U.S. and Canada.

ENGINEERING 381: Renovation of the Equipment Pad

Learning Objectives:
- List items to consider in renovating an equipment pad.
- Perform an energy audit and justify the expense of the equipment pad renovation to the owner.
- Discuss how new technology reduces operating and maintenance expenses.
- Identify best practices for efficient equipment pad layouts.

Equipment replacement is a huge opportunity for builders, retailers, and service professionals. The market is ripe with old pools, new technology, and homeowners that are now willing to spend money fixing their systems. However, your approach to equipment replacement should consider recent changes to safety and energy codes. This program will show you how to perform an energy audit and justify the expense of certain equipment upgrades.
ENGINEERING 391: Passive Solar Systems for Pools

Learning Objectives:

- Discuss basic passive solar technology for swimming pools, including site location, orientation, seasonal shading, and sizing.
- Explain panel technology, installation methods, racking, control systems, and operational/winterizing concerns.
- Outline design process and operating parameters.
- Identify best practices and illustrate installation problems and solutions.

Solar energy, when done right, provides virtually free heating to a pool without burning fossil fuels. As energy costs continue to increase, the demand for solar systems will grow and you should know exactly how it all works. Even if you don’t install the systems yourself, you should understand the limitations and best practices for design and installation so that your sales pitch and cost estimating are accurate.

ENGINEERING 401: Slot-Edge Pool Hydraulics

Learning Objectives:

- Discuss the physics and mathematical analysis used to design slot-edge systems.
- List the potential problems and solutions for everything from splash-out to gutter noise.
- Analyze detailed calculations for edge system gravity hydraulics and Total Dynamic Head.
- Identify details for the return plumbing system that help ensure a mirror finish at the surface.

Slot-edge pools require a gravity system that starts with the weir and channel and is complicated by the outlets, collector pipes, strainers, and surge basin. This program follows the flow of edge water through its circulating journey, addressing the physics, problems, solutions, details, and calculations that will make the slot system successful and with minimal noise and energy loss.
ENGINEERING 402: Difficult Sites-Technically Demanding Projects and Cast-in-Place Concrete

Learning Objectives:

- List advantages and disadvantages of using cast-in-place concrete for watershapes.
- Understand how the sequence of construction relates to the design and engineering details for things such as reinforcing, forming, cold joints, waterstops, and appurtenances.
- Review difficult projects including cantilevers, suspended pools, post-tension systems, acrylic windows, and moveable floors.
- Discuss concrete mix design specific to cast-in-place watershapes.

Although shotcrete is the preferred method of concrete placement for most watershapes, some projects are better suited for traditional form and pour operations. This is often the case when exacting tolerances are required for details such as acrylic windows and moveable floors. When a project calls for cast-in-place concrete, this is primarily a construction-related issue but it requires different detailing and analysis by the engineer-of-record. This program should help you understand when cast-in-place is appropriate and the importance of the engineer’s role in construction of these projects.

ENGINEERING 406: The Technical Aspects of Shotcrete

Learning Objectives:

- Review the mixing of chemistry contents with shotcrete vs cast in place.
- Discuss structural engineering components– reinforcement, placement, and designed locations and define how structural engineering affects shotcrete.
- Identify resulting material performance of in-situ materials in the plastic form and hardened form.
- List cracking – types, definitions and why they occur.
- Recognize petrographic analysis of placement and performance.
- Review ACI 506, ASA Position Papers – what every engineer should know about shotcrete.

Performance of concrete via the shotcrete process is predicated on its design and engineering prior to actual applications. This presentation focuses on pre placement specifications of what a shotcrete pool shell is and is not. Understanding or expectations of a newly installed pool are predetermined based off of sound principles used by a qualified shotcrete specifier and/or qualified engineer. In addition, problems arising from improper engineering or specifications as well as improper placement techniques will be highlighted.
ENGINEERING 471: Advanced Oxidation Processes (AOPs), Ozone, and U.V. Systems

Learning Objectives:

- Explain ozone, U.V. sterilization, and Advanced Oxidation Processes (AOPs).
- List code and regulatory agency considerations.
- Calculate the appropriate size for ozone generators and the associated equipment such as pumps, injectors, contact tanks, and other items.
- Calculate the appropriate size for U.V. sterilizers to be effective at chloramine reduction without chlorine destruction.

This program approaches Advanced Oxidation Processes (AOPs) from the perspective of an environmental engineer in the water purification industry. Reduction of chlorine, acid, other chemicals, Total Dissolved Solids (TDS), and maintenance using ozone, U.V. sterilization, or a combination of both is a recipe for truly healthy water. The instructor has been using these technologies for over 20 years and will share sizing tools to guide appropriate equipment selection.

ENGINEERING 491: Photovoltaic Solar Systems

Learning Objectives:

- Discuss basic photovoltaic solar systems for producing electrical energy to run pool equipment and other electrical loads from sunlight.
- Explain panel technology, installation methods, racking, control systems, and batteries.
- List procurement options such as purchasing, leasing, hybrid “rent-to-own” arrangements, and rebates.
- Discuss the combination of photovoltaic and passive solar systems and ways to achieve “net-zero” energy consumption for aquatic facilities.

Solar energy isn’t just limited to heating the pool water. Photovoltaic (PV) panels turn sunlight into electrical energy that often exceeds the electrical needs during the day (spinning the electric meter backwards). Some new homes are actually built with PV panels instead of traditional roofing and pool builders should understand how it works and how they might be able to offer electrical savings as part of their pool project. It was also thought that PV panels would displace the passive solar panels for pool water heating but there are benefits to stacking the PV panels over traditional passive panels.
CONSTRUCTION 101: Layout, Forming & Excavation

Learning Objectives:
- Explain the connection between the construction documents and the formwork and excavation.
- Identify elevations, grading, slopes, cut/fill, import/export, layout, offsets, alignments, batter-boards.
- List tools, equipment, measurement techniques, surveying, transits, levels, triangulation techniques.
- Discuss Dig-Alert, safety, excavation, trenching, shoring, flashing.

Once a vessel is literally “cast-in-concrete” it is difficult and expensive to change the shape. Careful attention to detail during the layout, forming, and excavation stage is critical to ensuring that the final structure matches the construction documents. Using the right equipment for the task at hand will improve efficiency and accuracy so this module includes an overview of the basic tools of the trade. For details on full-height forming, see CONSTRUCTION 301: Advanced Site Work & Forming.

CONSTRUCTION 102: Infrastructure Coordination

Learning Objectives:
- Identify autofills, backflow preventers, overflows, sanitary sewer connections, landscape/storm drain connections.
- Discuss natural gas supply sizing and details, propane, exhaust ventilation.
- Discuss component selection, pumps, filters, heaters, heat exchangers, solar, chemical systems, ozone, controllers.
- Identify safety barriers, fencing, gates, door alarms, pool alarms, automatic safety covers, commercial requirements.

All watershapes require certain infrastructure to support its operation, including water, sewer, gas, and electrical utilities as well as safety and security support in the form of fencing, safety covers, alarms, etc. This module lists several items that may need to be included in a project as well as specific considerations, details, and code requirements to do it correctly.
CONSTRUCTION 103: Shotcrete

Learning Objectives:
- Explain shotcrete, mix design, aggregates, water/cement ratios, admixtures.
- Identify equipment, air compressors, concrete pumps, nozzles, dry-mix, wet-mix.
- Discuss proper shotcrete techniques.
- Examine code requirements, ACI and ASA standards, Certified Nozzlemen.

Shotcrete is the preferred method of concrete placement for over 90% of pools. The process gives the builder flexibility to pneumatically direct concrete to any position, including overhead, while densifying and strengthening the concrete through high-velocity compaction. This module uses the foundation established by the ACI and ASA standards as well as several years of hands-on experience by the instructor to give a thorough presentation of the shotcrete process.

CONSTRUCTION 104: Waterproofing

Learning Objectives:
- Identify integral concrete waterproofing admixtures.
- Examine penetrating waterproof products and compatibility with other products.
- Explain topical waterproofing products and compatibility with other products.
- Define preparation, installation, and testing.

Finishes adhered to a reinforced concrete shell or retaining wall can fail or become damaged by leaks, weeping water, efflorescence, expansion/contraction, thermal shock, and other mechanical and chemical means. The solution is not found in any single magical product – instead, it is an assembly of multiple products and layers that each have their own function but must be completely compatible with each other to ensure a long-lasting bond. This module focuses on the installation of waterproofing systems under tile, coping, plaster, rockwork (both natural and fabricated), as well as special areas such as vanishing edges and vessels adjacent to other structures.
CONSTRUCTION 105: Basic Tile & Coping

Learning Objectives:
• Define preparation for tile, float, plus the tools of the trade including water levels, lasers, notch trowels, etc.
• Identify materials, including porcelain and ceramic tile, mesh-mount tile, face-mounted tile, mortars, thinsets, grouts, and sealers.
• Explain installation methods following standards produced by the TCNA.
• Describe coping details and installation, expansion joints, sequence of installation.

This module shows the best practices for basic tile and coping installation following the guidelines of the Tile Council of North America. A proper installation should last decades but failure to follow the correct procedures will result in delaminations, cracking, and other problems. This module does not address glass tile or all-tile pools – those subjects are covered in CONSTRUCTION 305: Glass Tile Installation.

CONSTRUCTION 106: Concrete Decking

Learning Objectives:
• Identify layout, expansion joints, crack control joints, slopes, drains, elevations relative to structures.
• Discuss base, steel reinforcing, rebar support, welded wire mesh, perimeter footing details, equipotential bonding.
• Define concrete decking materials, colorants, exposed aggregates, acid-washed finishes, deck veneers.
• Examine decking construction, pumping, screeding, troweling, and finishing processes.

All concrete cracks, but with proper preparation and installation details, we can limit and control those cracks to maintain aesthetically pleasing and structurally performing flatwork. A beautifully executed pool can be ruined by poor decking. This module focuses on proper flatwork design details and construction. You will learn where to add crack control joints, expansion joints, and how to properly slope planes towards deck drains and planter areas.
CONSTRUCTION 107: Pre-Plaster Preparation

Learning Objectives:
- Show removing the pressure test, cutting, cleaning, and draining lines, preparing skimmers, surge basins.
- Discuss cleanup, nail and wire removal, patching, pressure washing, setting hydrostatic valves.
- Explain details for return lines, suction outlets, light niches, other fittings, waterstops, hydraulic cement.
- Identify equipment, utilities, and safety barrier verification, inspections.

A builder should never leave the pre-plaster preparation for the plasterer to handle on the morning of this critical phase. It takes too much time to prepare the shell for the plaster on the same day and there is much more to it than a quick power wash. This program lists the tasks, pitfalls, and errors that many builders and plasterers make in preparing for cementitious pool finishes.

CONSTRUCTION 108: Cementitious Pool Finishes

Learning Objectives:
- Discuss plaster, colored plaster, Hydrazzo, PebbleTec, and other aggregate finishes.
- Define proper installation techniques and details as promulgated by the National Plasterer’s Council.
- Define proper startup procedures to reduce damage and staining of cementitious pool finishes.
- Discuss short-term and long-term care considerations.

Many problems with pool finishes originate from errors in water/cement ratios, water addition during installation, improper troweling techniques, and even the final acid wash for exposed aggregate finishes. Other problems arise during the startup where the water quality affects curing and that water quality is changing constantly during the first few months. This module provides students with the insight on exactly what is happening with the finish at each step of the process and how you can control the numerous parameters to avoid problems and achieve success with the finish and your client’s expectations.
CONSTRUCTION 109: Startup, Punch List & Project Closeout

Learning Objectives:
• Identify equipment startup, adjusting, calibrating, testing, and troubleshooting.
• Examine generic checklist, project specific punch list, Project Manual of owner’s manuals, operating instructions, etc.
• Discuss owner/operator walkthrough and training.
• Discuss as-builts, final inspections, permit closure, preliminary notices.

Following through with a proper project closeout is what separates a great builder from a normal builder. Most builders are happy to get their final check and begin focusing on other work, but this final step ensures that costly and time-consuming issues won’t arise out of basic neglect. The clients want a fast resolution to their punch list so that they can enjoy the project that they have waited months for. This module provides a big checklist and addresses several post-construction issues.

CONSTRUCTION 111: Genesis Position Statements – An Interactive Discussion

Learning Objectives:
• Explain why Genesis 3, Inc. has developed position statements.
• Examine how the position statements relate to other standards and codes.
• Discuss the specific statements including structural, hydraulic, safety, and energy considerations.
• Examine Genesis 3, Inc. Code of Ethics and basic business practice position statements.

There are good, better, and Genesis ways of doing things. Genesis has always held itself to high standards and now we are documenting them for key elements such as ethics, business practice, and technical issues such as design, engineering, and construction. These position statements are not legal standards or codes, but they clearly state the opinion of the Platinum members and they may be used by anyone to improve their own work product.
CONSTRUCTION 151: Proper Installation With a Comprehensive Plan (DID) Design, Install and Documentation

Learning Objectives:
- Identify why Lighting Systems Fail Over Time.
- Discuss the 7 Deadly Sins Of landscape Lighting consisting of Voltage drop and wiring Methods, Connections, Glare, Design, Material, Corrosion / Wicking and Future Considerations.
- Follow D.I.D. (Design, Install and Documentation)
  Design: Follow fundamental laws of Lighting to expand the Space.
  Install: Use Time tested Procedures for Long Term Sustainable health of the System.
  Documentation: Discuss the Significance on why documentation is so important in Landscape Lighting.

Learn the basic understanding and the importance of proper install to prevent your lighting system from failing. Detailing proven steps so that mistakes are avoided during construction. Understanding basic concepts of S.M.A.R.T. which stands for Safe, Materials, Amps, Right, and Time. This will be the difference between a perfect install and a nonprofessional install. This will make the difference between project success and complete failure at some point.

CONSTRUCTION 171: Project Profiles – An Interactive Discussion on Design and Construction

Learning Objectives:
- Discuss case studies in high-end residential design and construction.
- Examine the collaborative design/build process in the real world.
- Identify design changes, engineering considerations, project limitations, design, and execution of details.
- Examine completed project, lessons learned.

The Project Profile series of programs is intended to teach students by walking them through specific projects from start to finish. Beginning with a blank sheet of paper and following the project through design, engineering, and construction, the presenter will highlight lessons learned, what worked, what didn’t work, and how things could be improved in a future project. The Project Profile series is presented by various Platinum members and may be included with the CONSTRUCTION 201: Basic Pool Construction and/or CONSTRUCTION 401: Advanced Watershape Construction programs.
CONSTRUCTION 201: Basic Pool Construction

Learning Objectives:
- Discuss Basic Pool Plumbing, Geotechnical Engineering, Structural Engineering, Electrical Engineering.
- Define Layout, Forming & Excavation, Infrastructure Coordination, Shotcrete, Waterproofing.
- List Basic Tile & Coping, Concrete Decking, Pre-Plaster Preparation, Cementitious Pool Finishes.
- Discuss Startup, Punch List & Project Closeout, Project Profile.

This 3-day program is divided into several modules (see ENGINEERING 101 – 104, CONSTRUCTION 101 – 109, and CONSTRUCTION 171 for specific details) presented by experts in each trade. The program begins with engineering topics such as basic plumbing, geotechnical, structural, and electrical design. With a basic understanding of the engineering, Day 2 begins with layout, forming, and coordination of utilities, safety barriers, and other related infrastructure. Shotcrete, waterproofing, tile, and coping trades are also addressed. The final day includes concrete decking, plaster, startup details, and an interactive walkthrough of a sample project from beginning to end. This program is designed to move each student through all the phases of basic pool construction in great detail unlike anything else offered in the industry – it will make every builder better and it is a requirement for both the SWD and Service Professional certifications.

CONSTRUCTION 203: Pigment Technology

Learning Objectives:
- Discuss the differences between inorganic, organic, dry, and liquid pigments.
- Identify similarities and differences between different cements, aggregates, and mix ratios.
- List the factors that affect pigments such as additives, mixing processes, and differences in pigment formulations.
- Define key start-up procedures and chemical processes.

Apply your color theory knowledge to concrete decking and plaster walls and pools using this program on pigment technology. Get key details on colorants and how they interact with the rest of the cementitious recipe including aggregates, cement, water, calcium chloride, pozzolans, retardants, and other considerations. Understand the mixing process, chemical interactions, and things to consider when using colored concrete and plaster.
CONSTRUCTION 204: The Science of Long-Lasting Aggregate Finishes

Learning Objectives:

- Explain the properties of aggregate pool finishes.
- Discuss the differences between aggregate and plaster pool finishes.
- List the factors that affect aggregate pool finish installation such as additives, cements, and pigment formulas.
- Describe how aggregate pool finishes are used in specific examples, from concept and visualization through design and installation.

Aggregate pool finishes are one of the most widely used building products in the world, highly valued for exceptional durability. One of the most important features of aggregate pool finishes are the factors that affect installation to create a true finish. Explore additives, unique blends in design, and the general installation process of aggregate pool finishes.

CONSTRUCTION 205: Pool Tile – The Good, the Bad, and the Ugly

Learning Objectives:

- Examine proper material and installation practices.
- Discover “What to do and what not to do” theme.
- Identify very basic tile installation.
- Examine photos of projects that turned out well and others that went horribly wrong.

Nationally renowned and award-winning tile contractor, Greg Andrews, will take you on a photographic journey of projects that will inspire you as well as show how bad things can get. This is a quick program with a “what to do and what not to do” theme.
CONSTRUCTION 208: Startups – The $64,000 Answer

Learning Objectives:
• Identify how startup problems damage more than the pool finish: customer confidence and your bottom line.
• Discuss how to generate tens of thousands of dollars with well executed startups.
• Examine how to eliminate project complications with monitored startups.
• Identify how to turn those perfect startups into referrals to grow your business.

Although this program includes technical information, it is more about the business side of doing proper startups. Use these lessons learned to improve and expand your startup services and retain those clients for ongoing service and maintenance. Protect the pool finish and your client’s investment while reducing your exposure to liability.

CONSTRUCTION 221: Site Evaluations & Field Instruments

Learning Objectives:
• Identify lasers, site levels, transits, tapes, and satellite imagery.
• Distinguish dimensions, elevations, slopes, angles, line-of-sight issues.
• Define basic drawing and documentation of site evaluation and measurements.
• Examine where and how to use online data such as Google Earth, county records, aerial photos.

This entry-level hands-on workshop was designed specifically for the pool and landscape trades so that designers could collect accurate and appropriate information from the field prior to starting the design. After all, what good is a design if it does not fit the space or address issues such as slopes and drainage? Learn how to document dimensions and topography using real instruments in the classroom.
CONSTRUCTION 231: Efficient Installations: Equipment, Controls & Underwater Speakers

Learning Objectives:
- Learn efficient methods of planning and layout for equipment pad plumbing, electrical & automation.
- Identify applicable building code requirements for safety and serviceability (NEC, IBC/IRC, etc.).
- Discuss techniques & details to simplify and expedite equipment installations.

The ability to plan and install support equipment in an efficient manner saves time, money and improves the serviceability. Following proper procedures and adhering to the building codes will ensure a safe installation for bathers & service personnel and extend the lifespan of the equipment.

CONSTRUCTION 251: Commercial Pools & Waterparks

Learning Objectives:
- Identify design options, engineering challenges, construction issues, and how to assemble a team to succeed in big construction.
- List code considerations (especially ADA and MAHC), permit processing, and differences between residential projects and commercial pools and waterparks.
- Discuss working with municipalities, architects, engineers, and general contractors, expectations of project management, document control, longer schedules, cash flow, bonds, insurance, etc.
- Identify operational requirements and seasonal changes from lifeguards to maintenance.

Residential pool builders attempting larger commercial projects can quickly get themselves into trouble by not understanding the additional hurdles and associated time and expense required of larger projects. Undoubtedly, these complex projects will necessitate additional design and engineering detailing and even new construction methods. This program establishes expectations from planning to operations and guides the students toward a successful transition into large projects.
CONSTRUCTION 232: Designing and Installing Underwater Windows

Learning Objectives:
- Learn to design and engineer acrylic windows
- Discuss installation requirements.
- Identify glass vs. acrylic

This class will provide you design options and ideas to utilize the integration of acrylic underwater windows. These unique underwater windows will help develop a new exciting product and feature to offer to your clients.

CONSTRUCTION 271: Collaborative Project Profiles

Learning Objectives:
- Discuss case studies in high-end residential design and construction.
- Examine the collaborative design/build process in the real world.
- Identify design changes, engineering considerations, project limitations, design, and execution of details.
- Examine completed project, lessons learned.

Join Kate Wiseman and Skip Phillips as they profile several of their collaborative projects where the designs were done in collaboration with one another. Discuss how the design process can benefit from having multiple people involved, as well as the considerations needed to insure a successful final product.
CONSTRUCTION 301: Advanced Site Work & Forming

Learning Objectives:
• Discuss pre-loading soil for compaction, over-excavation, backfill, soil density testing, and stabilization.
• Examine full-height forms, one-sided shotcrete forms, two-sided cast-in-place forms and ties.
• Identify cold joints, waterstops, layout for sequential reinforced concrete construction.
• Use details, calculations, pre-concrete preparation, form removal and reuse.

This module takes site work and forming to a much higher level. Where CONSTRUCTION 101 addresses basic batter-board forming of a bond-beam at grade, this program shows how full-height forms are constructed to withstand the vibration of shotcrete and the pressure of cast-in-place concrete.

CONSTRUCTION 302: Architecturally Integrated Watershapes

Learning Objectives:
• Review watershapes abutting, structurally linked, or supporting other buildings or elements thereof.
• Examine watershapes on podium or rooftops.
• Examine shotcrete shell within a coffer, stainless steel pools.
• Identify waterproofing and drainage systems, special details, code considerations.

Some vessels are integrated into other structures to achieve certain aesthetic concepts, like floating rooms or swim-up bars. The level of difficulty increases since the adjacent structure imparts additional loads on the vessel while simultaneously requiring even greater protection against leaks. This module looks at both residential and commercial projects integrated with other structures and it identifies numerous considerations that help make the students successful.
CONSTRUCTION 303: Concrete Science

Learning Objectives:
- Identify concrete science, waterproofing admixtures, pozzolans, set-retardants, curing agents.
- Examine heat of hydration for thick sections, air entrainment, fiber reinforcement, fly ash, sustainability.
- Review test cylinders, test panels, cutting and coring procedures, compression tests.

This module is designed to give the student more in-depth knowledge of the science behind concrete and shotcrete (both dry and wet mix).

CONSTRUCTION 304: Fire Elements

Learning Objectives:
- List safety considerations and solutions.
- Examine fireplaces, fire pits, fire bowls, and other architectural fire elements.
- Review construction details, combustion air, water drainage, thermal shielding, firebrick, ignition.
- Discuss fire automation, electrical power, low voltage vs. high voltage.

For millennia, fire has been an integral part of food and entertainment. Now that the landscape has become a popular venue for food and entertainment, it is only natural that fire is growing in popularity. New technology, combined with a renewed sense of style and design has made fire features even more desirable, and now is the time to get educated about this growing trend. Learn about the safety considerations and details that will make your next fire element a hot success.
CONSTRUCTION 305: Glass Tile Installation

Learning Objectives:
- Examine glass tile, mosaic tile, all-tile pools.
- Review tile preparation and back-buttering.
- Examine layout, seams, treatment at contours, coves, and edges of steps and benches.
- Discuss installation methods following standards produced by the TCNA.

This module shows the best practices for glass tile installation following the guidelines of the Tile Council of North America. Glass tile is expensive and time consuming to install. Students will significantly reduce their risk exposure by learning the tricks of the trade from the first-hand experience of a top-tier glass tile installer. Get inspired with several images of completed works and the step-by-step process that led up to the spectacular finish.

CONSTRUCTION 306: Details – Innovative Aesthetic & Technical Solutions

Learning Objectives:
- Discuss details, details, details.
- Examine how to hide skimmers, suction outlets, light fixtures, spa-side remotes, autofill components, deck drains, and more.
- Identify self-cleaning surge basins, basket strainers, access doors and ladders.
- Review equipment pad, electrical, and control system layout, pipe supports.

When function supersedes form, we end up with ugly devices like plastic skimmer lids and suction outlets. With a bit more thought and planning we can improve both the form and function in the pool and in the mechanical and electrical systems. Build well-organized equipment sets with conduits at all the right places to route everything from power to low voltage communications and sensor wiring.
CONSTRUCTION 307: Construction at Difficult Sites

Learning Objectives:

- Examine construction documents, detail coordination.
- Review cranes, drilling rigs, full-height forming, double-curtain steel.
- Identify hillside work, rooftop pools, remote locations, adverse soil conditions.
- List construction sequencing, trade coordination.

Some of the most spectacular pools in the world are particularly amazing simply because they were hanging on the side of a cliff or constructed on a site with such limited access that everything was craned into position over the house. No stranger to these challenging projects we will share experience and expertise so that you can skip the risky learning curve and approach these projects with a well-executed plan.

CONSTRUCTION 308: The Beauty of the Edge – The Definitive, Internationally Acclaimed Vanishing Edge & Water-in-Transit Design

Learning Objectives:

- Identify vanishing edges, slot-edges, gutters, deck-level pools, raised perimeter-overflow pools.
- Examine attached surge basins, detached surge basins, basin volume sizing rules-of-thumb, gravity lines.
- Review line-of-sight considerations, edge details, flow rates, and tolerances.
- Discuss aesthetic and functional considerations.

Learn the correct methods for creating the tremendous visual and functional applications of water-in-transit such as vanishing edges, deck-level slot overflows, and elevated perimeter overflows. Understand flow rate requirements and different edge details for creating various effects, and their relationship to edge tolerances and special conditions, establishing line-of-sight goals and project objectives. Presentation will also cover hydraulic system design criteria, catch basin dimensions, surge tank sizing, proper slopes, and air venting of gravity flow systems to enable efficient flow rates while minimizing noise.
CONSTRUCTION 309: The Beauty of the Edge – Vanishing Edge, Grass Edge, and Perimeter Overflow Pools Part 2 – with Project Specific Examples

Learning Objectives:
• Examine new edge details to solve unique architectural challenges.
• Profile recent edge projects and lessons learned.
• Discuss aesthetic and functional considerations.
• Review construction methods and sequence.

Vanishing edges and perimeter overflow pools have become more common and their expense is now obtainable to more people. This increase in popularity has demanded solutions to new architectural challenges and more options for edge details than ever before. We established this Part 2 to inspire you with beautiful imagery, applied calculations to real world examples, and show how some of these challenging projects are constructed.

CONSTRUCTION 323: Outdoor Kitchen Construction

Learning Objectives:
• Examine construction details and sequence of construction.
• Discuss concrete, steel, masonry, and forming details.
• List code considerations including structural, electrical and plumbing issues.
• Identify preferred dimensions and discuss how to address height issues with quick mockups.

Where DESIGN 323 focuses on outdoor kitchen design with some construction hints, this program focuses on the sequence and details of construction. Start with the reinforced concrete footing, masonry walls, and forming details. Then, see how plumbing and electrical components are assembled to meet code. Pizza ovens, BBQs, stainless components, sinks, ice buckets, and other details are discussed.
CONSTRUCTION 401: Advanced Watershape Construction

Learning Objectives:

- Identify Mechanical, Venting & Exhaust Systems, Advanced Site Work & Forming.
- Review Architecturally Integrated Watershapes, Concrete Science, Fire Elements, Glass Tile Installation.
- Discuss Details – Innovative Aesthetic & Technical Solutions, and Construction at Difficult Sites.

This 3-day program is divided into several modules (see ENGINEERING 301 – 306 and CONSTRUCTION 301 – 307 for specific details) presented by experts in each trade. The program begins with engineering topics such as basic gravity plumbing, drainage, advanced soil stabilization techniques, pier & beam foundations, control & automation systems, and mechanical design for enclosed equipment rooms and vaults. Vessels integrated with other structures such as roof-top pools are also addressed along with fire elements, glass tile, and other details.

CONSTRUCTION 402: Best Practices for Cast-in-Place Concrete Construction as Designated by the ACI

Learning Objectives:

- Analyze cast-in-place versus shotcrete.
- Discuss design, engineering, details.
- Identify forming, sequence of construction, construction considerations.

Cast-in-place concrete is not widely used in the pool and spa industry. However, when done properly the result is a vessel with unmatched accuracy for dimensional tolerances, flatness of surfaces, and squareness of planes. When dealing with all-tile finishes, cast-in-place structures are an easy canvass for the mosaics. The American Concrete Institute has several requirements for concrete structures and this program will highlight and explain the key considerations.
1:30 hrs  0.2 IACET CEUs
William Drakeley
Expertise: Builder/Installer
Focus: Builder/Installer
Level 4

CONSTRUCTION 403: Best Practices for Shotcrete Construction as Designated by the ASA and ACI

Learning Objectives:
• Examine code requirements, International Building Code, ACI 318, ACI 350.
• Examine American Shotcrete Association guidelines, and position statements.
• Discuss design, engineering, details, overview of parameters needed in place before, during, and after shooting takes place.
• Examine nozzleman certification.

The American Concrete Institute has several requirements for concrete structures and shotcrete, and this program will highlight and explain the key considerations. The American Shotcrete Association contributes to the development of the ACI codes and they have shotcrete-specific guidelines and position statements that help ensure proper placement and strength. Learn the importance and requirements of ACI Shotcrete Nozzleman Certification – it just might be a requirement for your next big project.

1:45 hrs  0.2 IACET CEUs
William Drakeley
Expertise: Builder/Installer
Focus: Builder/Installer
Level 4

CONSTRUCTION 404: Shotcrete Standards and Codes

Learning Objectives:
• List standards for shotcrete construction.
• List codes for shotcrete construction including the International Building Code and ACI 318.
• Examine American Shotcrete Association guidelines, and position statements.
• Review a project profile of difficult pools focusing on the shotcrete applications.

The American Concrete Institute (ACI) and the American Shotcrete Association (ASA) publish several consensus standards that affect shotcrete and cast-in-place concrete. ACI also publishes the Building Code for Reinforced Concrete. This program identifies the key standard and code elements and shows how the various documents interact with each other. New for 2013 is a position statement published by the American Shotcrete Association.
CONSTRUCTION 405: Translucent Glass Tile Installation

Learning Objectives:
• Examine glass tile in pools and how it differs from other types of tile installations.
• Review industry standards and “best practices” as they relate to glass tile.
• Discuss how translucent glass creates a “viewing window” into the substrate behind the finished surface.
• Profile video demonstrations of proper substrate preparation, waterproofing options and troweling techniques.
• Discuss the importance of proper installation material selection/systems, jobsite conditions and ambient temperatures, adequate cure times and conditions, and water chemistry.

The popularity of glass tile in pools and water features has grown exponentially in recent years, and the use of translucent glass has generated much concern related to installation material discoloration as well as microbial activity which is visible through the finished product. This program is designed to address these challenges, as well as offer a systematic approach to installing translucent glass and avoiding issues.


Learning Objectives:
• Identify type of cracking within the pool structure (plastic shrinkage, thermal, autogenous).
• Examine pool shell cracking causes (intentional vs. unintentional).
• Discuss solutions for pool shell cracking. This includes detailing, engineering, and implementation of cracking repair.
• List recommendations for client interactions.

The American Concrete Institute and the American Shotcrete Association have studied the concrete implementation process via wet and dry mix shotcrete at all phases of installation. According to these institutions' research, the one constant occurrence is that concrete will crack. How it cracks, why it cracks, and the amount of cracking is determined by mix design and placement procedures. This course will examine in detail the severity of pool shell cracking and strategies for remediation.
CONSTRUCTION 408: Construction Techniques for a Vanishing Edge Pool

Learning Objectives:
- Review excavation and drainage underneath common wall(s).
- Identify proper forming and load resistance.
- Review proper and improper plumbing installations.
- Identify shotcrete applications do’s and don’ts.
- Review the effects of construction techniques on finished materials.
- Describe the effects of construction techniques on water flow and/or water in transit.

One of the most distinctive features in modern swimming pool design and construction is the vanishing edge. The visual phenomenon of water perpetually in transit is a tribute to quality engineering and execution. Using real case studies of what will and will not work, this module describes the steps necessary to successfully construct a vanishing edge swimming pool. The class will focus on quality plans and good engineering, soil analysis and site preparation, forming, plumbing, shotcrete application, and proper finishes.

BUSINESS 101: Operating Philosophies, Plans & Procedures

Learning Objectives:
- Write a Business Plan.
- Write a Mission Statement.
- Write Operating Philosophies.
- Write Standard Operating Procedures.

Writing a Business Plan sound easy, but the best ones are one year looking-forward Tactical Plans combined with a 5-year Long Term Strategy. Mission Statements and Operating Philosophies are very different and this program will explain why and their importance. Lastly, you can have your employees learn to love Standard Operating Procedures. Rather than solve the same problems over-and-over, think them through and document them once-and-for-all!
BUSINESS 102: Marketing & Lead Cultivation

Learning Objectives:

- List reasons why advertising money is wasted.
- Define Interrupt Marketing.
- Identify ways to generate leads.

Half of all the money you spend on advertising is wasted. That’s okay – Find out how to make the other half really count. See examples of Hook-and-Message Advertising as well as Interrupt Marketing. Then, understand why blowing your own horn actually hurts you (no kidding – let someone else do it for you) and how you can cultivate leads using alternative channels.

BUSINESS 104: Ki is Key – Developing and Maintaining a Positive Powerful Presence

Learning Objectives:

- Examine how your energy, or “Ki”, influences others both positively and negatively.
- Recognize how to improve your Ki through self-development, experiences, and lifestyle improvements.
- Discuss how to harmonize your body, heart, and spirit to project confidence and positive energy to your family, employees, and clients.
- Use your energy to live a happier, more productive, and longer life.

The Samurai believed in a power that flowed through the universe and that they could tap into this power by being in harmony with it. Learn to become a true Samurai, which means “one who serves.” See how this ability to serve can make you indispensable and bring you respect, honor, power, wealth, and happiness.
BUSINESS 106: Design & Construction Agreements

Learning Objectives:
• List key elements of design agreements and construction contracts.
• Discuss how to get paid for your design work and fixed-fee vs. cost-plus.
• Identify how to handle travel expenses and reimbursable fees.
• Describe how to manage progress payments.

Staying out of trouble is the most important requirement for success. But if something goes wrong, your agreement is the last line of defense from a legal standpoint. Understand the differences between design and construction agreements and fixed-fee vs. cost-plus. You will get some insight into the legal considerations and requirements of agreements. Lastly, learn how to handle fees and markup so that you don’t get ahead or behind the expenses.

BUSINESS 108: How to Find and Work with a Good Landscape Designer or a Good Pool Contractor

Learning Objectives:
• Discuss why landscape designers and pool contractors should consider partnering.
• List advantages to be gained by collaborations.
• Identify where architects should start searching for qualified pool contractors.
• Identify where pool contractors should start searching for qualified designers.

On most small-scale pool projects, landscape designers and pool contractors typically operate in a forced, dysfunctional relationship. However, if the parties can develop a strong working relationship with each other, recognizing that their mutual end goals for the project are the same, dysfunction will become the exception rather than the norm. To develop a rapport with one another, each must understand and define what their respective roles and proficiencies are on a collaborative project. Knowing when and how to apply each party’s specific area of expertise becomes the key to success. Better coordination leads to better execution. This in turn will lead to a more contented client who knows they received not only a great end-product but also a project of lasting value.
BUSINESS 111: Genesis Lifestyle Programs

Learning Objectives:
- Great food and wine.
- Interact with the Genesis family.
- Learn by sharing ideas in a relaxed environment.

All work and no play makes for a dull day. This is not an accredited program and the hours do not satisfy an elective or continuing education requirements. Topics include travel, winetasting, book signings, tours, and other social functions.

BUSINESS 121: Genesis Lifestyle Programs: Book Signing

Learning Objectives:
- Purchase books relevant to the industry.
- Meet and greet with relevant authors.
- Understand the impetus that drove the author and the subject of the book.

This is an opportunity to meet authors that have written books specific to the architecture, landscape architecture, and watershaping industry. Books may be purchased and signed at the Pavilion.
BUSINESS 202: Benchmarking & The Game of Work

Learning Objectives:

- Define benchmarking and identify key metrics to track.
- Discuss how to use benchmarking to gain an advantage over your competitors.
- List ways to make a job into a fun and profitable Game.
- Explain Continuous Improvement and how to achieve it via the Game of Work.

Your employees watch the clock all day and complain that it’s too warm or too cold to work; yet at 5:01 they race to the parking lot to go golfing. They feel underpaid but all say that they can do more. Make working for you a Game then teach them how to Win! You are losing ground to your competitors. What are they doing that you aren’t? Find out what benchmarking really means. Lastly, learn why Continuous Improvement can be better than the latest ISO Certification, Kaizen Blitz, or Kanban system. Less buzz words and more doing things right!

BUSINESS 204: You Can Be Better

Learning Objectives:

- Examine human nature, interpersonal relationships, and customer satisfaction.
- Discuss how to improve sales techniques and client interaction.
- Define how to set business and personal goals and to prioritize for efficiency and improvement.
- Discuss how to eliminate the negativity that surrounds you and put your positive mental outlook to work for you.

We must all deal with people on a daily basis. Understanding human nature will improve your communication, productivity, and customer satisfaction. Learn how the negative influences in your life and work impact your mental outlook and performance – then, learn how to eliminate those influences. Develop abundant enthusiasm for what you do for better networking and learn how to determine and provide exactly what your clients actually want.
BUSINESS 208: 10-Ways to Crush the Competition

Learning Objectives:
- Identify what your personal style is
- Illustrate and improve your level of customer satisfaction
- Discuss who your clients are, and who isn’t your client
- Develop your ability to focus on the most important things first
- Identify how to take command of the work/life balance and play as hard as you work

Looking for that edge on finding the right clientele for you and your business, this course is for you. Bower, will take you through a plan of identifying your best clientele, establishing confidence in your customer service, leading your team through a project all while maintaining the goal of keeping your work life balance.

BUSINESS 211: Genesis Family Reunion & Winemaker Dinner

- Thursday, November 3, 2016
- Timberlane Country Club, 1 Timberlane Dr., Gretna, LA 70056
- Winemaker Dinner featuring Winemaker Betz Family Winery
- Fantastic food in an elegant setting.

Join the Genesis family of instructors, students, and sponsors as we celebrate our friendships and recognize the accomplishments of our new members of the SWD Masters and SWD Registered Members. Learn a little, laugh a lot – this annual tradition is certain to be the classiest event of the Expo.
BUSINESS 251: Teaching Employees to Think Like Owners

Learning Objectives:
- Describe how to collect, share and discuss meaningful information about the tactical and strategic issues influencing your business.
- Identify those in your organization that have the will and ability to lead.
- Translate your institutional knowledge and business savvy to the next leadership team. The worst place to store business information is in your head.
- Recognize the leadership of your organization, discuss the roles that provides sustainability for multiple generations.

Every business will ultimately transition in some way; either to a new owner or to oblivion, as 66% of all companies fold when the current leadership departs. Before these managers can become owners, they need to learn to think like owners. Whether you intend to sell your business in the near term or not, getting your employees to think like owners can only enhance your company’s performance. Attendees will learn to create their personal definition of success for exiting their organization. Their leadership legacy has already started and can’t be redefined in the last six months of their leadership. By building a team of potential future owners, members will have more options for a successful transition in the future. A proven four step process will be presented to allow employees to think like and be owners. CEOs who are not owners will learn how to create a much more effective management team by helping key execs grow beyond their functional specialties and think like owners.

BUSINESS 261: Coaching To Win

Learning Objectives:
- Define successful results by developing a specific coaching plan.
- Explain proven coaching techniques.
- Discuss coaching tools to improve employee performance.

This course provides pool and spa company owners with a guide to effectively coach their employees to improve overall performance. Education, training and development have a positive impact on productivity. This course formulates coaching techniques to improve knowledge, create positive performance accountability and build self-esteem and confidence.
BUSINESS 262: Strong Company Culture Reaps Strong Profits

Learning Objectives:
- Discuss methods of building a strong company culture.
- Identify and steer employees toward roles where the employee has greatest chance of success.
- Apply tools for managers to retain employees for long term growth.
- Define outcomes, focusing on employee strengths and finding the right fit generates high performance.

Managers have a responsibility to guide employees into roles where their performance benefits the company’s short and long term goals. This seminar will discuss how to build a strong company culture where employees are committed both financially and emotionally to the company’s success.

BUSINESS 265: Coaching Strategies to Improve Profitability

Learning Objectives:
- Demonstrate a systematic approach to achieving increased employee productivity focused on bottom line profitability.
- Analyze their employees’ relationship-oriented skill sets creating a positive impact on company’s effectiveness.
- Identify an awareness within the individual to adjust behaviors to achieve business goals or objectives.

This seminar discusses the nature of coaching as a sequence of activities and conversations which provide employees with encouragement and feedback; the goal is improved financial results. A coaching culture creates a positive impact on organizational effectiveness as well as the quality of performance. This seminar is based on Bill Kent’s doctorate dissertation with empirical data.
BUSINESS 270: Be a Coach, Not a Boss

Learning Objectives:
- Describe how to motivate employees to reach their potential, improve employee’s self-esteem.
- Establish respect from their employees through one on one interaction.
- Assess productivity, which generates positive bottom line profitability.

It has been proven that to increase productivity in today’s employees; the authoritarian management style is not effective. Today’s entrepreneurs must formulate a new leadership style based on being a coach. This interactive presentation with participants will provide new management techniques to improve productivity generating an increase in profits.

BUSINESS 302: Pool Project Sales & Design, The Interview

Learning Objectives:
- Define your client’s needs and wants.
- Distinguish yourself, your firm, and your services in the best light.
- Examine how to think differently about the design and sales process.
- Use value-based selling techniques to quickly discover who your clients will buy from.

Learn to get to know your clients to best meet their needs and present your products and services in the best light. Identify your unique attributes and exceed expectations and minimum building standards to provide more value and trust with your clients. Understand the “interview” sales approach to discovering what your clients truly want and how to give it to them. Use certain selling techniques to quickly find out what type of client you are dealing with and who they will buy from.
BUSINESS 306: Elements of Litigation

Learning Objectives:
- List potential liabilities, limitations of liability and ways to avoid liability.
- List documents that are important in the defense of liability including agreements, soils reports, drawings, specifications, change orders, etc.
- Describe how to handle potential litigation and what to do if you have a construction defect, warranty claim, or breach of contract issue.
- List issues to consider when asked to look at a competitor’s construction defect or when asked to work on a problem project.

Avoiding litigation is always the best practice, but sometimes, no matter how well you perform, you may be named in a suit even if a problem is the direct result of someone else’s work. Learn how to protect yourself and your company with contractual considerations and real world experience. It is always better to learn from the mistakes of others and these instructors will share a bit of their expert witness experience with the class.

BUSINESS 308: Attracting and Working with High-End Clients

Learning Objectives:
- Examine and appreciate the lifestyles of the clients.
- Distinguish yourself to compete at the highest level and exceed already high expectations.
- Discuss how to elevate your own lifestyle to narrow the gap.
- Identify and become accustomed to dealing with much larger dollar amounts.

Your portfolio would benefit from some high-end projects but you need to convince those clients that you are the right person for the job. Get some insight into the minds of high-end clients to gain an advantage over your competitors. These two co-founders of Genesis will share their operating techniques and secrets to success.
BUSINESS 321: Company Valuation & Exit Strategy

Learning Objectives:
- Define ways to value any business – especially your own.
- List ways to improve the value of your own business.
- Discuss buying and selling companies and details of the acquisition process.
- Develop an exit strategy to sell, retire, or transfer operational control while still maintaining ownership.

What is your company worth today? To you? To your partner? To your employees? To your heirs? To a buyer? Learn ways to make it worth more. How do you value a business that you want to buy? Understand how to make an offer and close once they say “yes.” How can you sell or transfer your company and retire? If you are not ready to retire, you will be interested in strategies that will let you work less and still have the business grow.

BUSINESS 331: Job Costing for Profit Versus Existence

Learning Objectives:
- Review overhead, expenses, markup, gross margin, and profit.
- Discuss what is an appropriate markup or gross margin.
- Identify what your products and services are worth. What are you worth?
- Define your value and find ways to improve it.

Determine how much your product or service is worth based on your costs, overhead, and after what you think is a fair return or profit. Whether you are a small service company, retail store, or a large builder, the formulas are similar. Everyone in business should constantly review his or her costs and profitability in our continually changing industry.
BUSINESS 402: The Art in Closing More Deals – Rethinking the Sales Process

Learning Objectives:
• Define Psychographics – the key to understanding today’s consumer behavior.
• Discuss the concept - don’t sell – instead, help your client buy a product.
• Explain why no one wants a sales pitch – they want to choose the right design and builder.
• Examine and get inspired and excited about the industry with a three minute video collage of beautiful pools.

Consumer expectations have dramatically changed over the past five years. Tap into this science and understand what drives consumer behavior. Use this tool to develop a new approach to client interaction that eliminates the sales pressure from both you and your clients – instead, turning the communication into a valuable relationship that will close more deals.

BUSINESS 403: 3 P’s of Retailing to increase PROFIT!

Learning Objectives:
• Define effective purchasing strategies
• Identify ways to effectively present products in the store to increase sales
• Review low-cost and effective techniques to better promote retail store profits

Purchasing is the treasure hunt to find the best, most reliable, and “coolest” stuff to stock your store. Once you have your products, how you Present and Promote them is vital to maximize your Profit! This seminar will explore all the “P’s” and offer experienced advice to dramatically increase your retail profit.
BUSINESS 431: Markup & Profit

Learning Objectives:

- Define the basic formulas for computing full overhead, markup for new construction, renovation, complete job costs, breakeven point, and more.
- Determine the appropriate markup for your business, sliding scale markup, and margins.
- List details of good contracts with clients and subcontractors including payment schedules.
- Identify the warning signs of potential problems with your projects and business.

Companies that fail to plan, plan to fail. Understanding how to develop and manage complete job costs that account for materials, labor, soft costs, overhead, profit, equipment replacement costs, and other factors is critical to the success of any business. Michael C. Stone, author of Markup & Profit: A Contractor’s Guide, will use his 30+ years of construction experience to walk students through the terms, details, formulas, and process of determining all financial factors that must be considered in planning and cost estimating.
Luxury Pools

THE PREMIER OUTDOOR LIVING PUBLICATION

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NSPF offers several online and classroom courses for aquatic professionals

The National Swimming Pool Foundation appreciates the help of Genesis students and sponsors to achieve our mission: to help people live healthier lives through aquatics.

Please refer to the NSPF course section for a variety of course options to attain IACET-approved CEU’s and OSHA training.

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Aquatic Play Feature™

Learning Objectives:
• Define the different types of aquatic play features
• Discuss how to maintain good water quality
• Review unique staff and public management guidance

Help protect yourself and the public by understanding how to manage facilities with water features. The course focuses on the proper operation of these unique features, as well as risk reduction to the users, employees, and the facility itself. If you operate, manage or service an aquatic play feature, large or small, this training is a must for you. An illustrated, full color handbook is included with the online course.

Continuing Education Units (CEUs) available.

Aquatic Facility Audits

Learning Objectives:
• Review reducing illness and injury rates
• Discuss worker’s compensation claims
• Explain empowering employees by involving them in the activities that affect their own safety
• Describe increasing job satisfaction
• Discuss making the facility more competitive

Maintaining a safe environment for the staff and patrons of the pool should be the goal of every facility. An audit is an integral component to the risk management plan. Whether you are a facility manager, a service company, a consultant, a builder, or a retailer, conducting audits should be a regular, scheduled activity of the risk management plan. Properly conducting an audit does require a clear understanding of the purpose and process. An illustrated, color handbook is included with this online course.

The National Swimming Pool Foundation offers several accredited online and live programs that are part of their certifications or they may be used as SWD certification electives. The classes listed below are available online at www.nspf.org.
Aquatic Risk Management

Learning Objectives:
- Discuss the Law and the Aquatic Professional
- Review Case Studies
- Define Aquatic Risk Management
- Define implementation of the Risk Management Plan

This course will help you through the process of reducing injury and liability risk in and around facilities. Every business encounters risks, some of which are predictable and under management’s control; others are unpredictable and uncontrollable. Risk management is a vital practice where tragedies – such as drowning, diving accidents, suction entrapment events, illness outbreaks, or other events – can destroy in a few moments what has taken years to build. Losses and liabilities such as these cause emotional pain and can cripple or bankrupt a business. An illustrated, color handbook is included with the online course.

Certified Pool/Spa Inspector™

Learning Objectives:
- Review the basics on operation and maintenance
- Discuss Pool & Spa Safety Act compliance
- Define unique inspection aspects of spas
- List the basics on facility design

Health inspectors can quickly understand the basics of operation, the key hazards and risk areas, and how to better implement consistent and effective inspections. Pool management and operators are also interested in this course to prepare for pool inspections. You will also receive a Certified Pool/Spa Inspector™ Handbook with the course. Continuing Education Units (CEUs) available.
Emergency Response Planning

Learning Objectives:
- Develop Emergency Response Plans
- Discuss effective communication
- Review responding to aquatic emergencies
- List the types of emergency situations
- Define hazard communication plan

When there is an accident or unexpected situation that demands immediate action, is your team ready to handle the situation? This online course is a useful guide to help responders prepare for emergencies, protect the facility, and save lives. An illustrated, color handbook is included with the online course. Continuing Education Units (CEUs) available.

Field Service Professional

Learning Objectives:
- List steps for routine maintenance
- Review necessary pool maintenance systems

This course is designed to show service pros and pool operators how to do perform routine maintenance at residential and commercial pools. The Field Service Professional online training is perfect for those new to the industry or those who just want a refresher. Loaded with how-to videos, the interactive training teaches about circulation systems, filters, chemical dosing systems, heaters, cleaning and vacuuming systems, automatic controllers, and acid washing.

The online course gives pros a pre-field experience – giving the extra confidence needed for that next field job. Includes a 38-page handbook in PDF format that can be downloaded after course.
Pool & Spa Basics™

Learning Objectives:
• Discuss reducing risk in and around the water
• Review safe chemical handling and storage
• Discuss the importance of recordkeeping
• Identify causes of water loss
• Review types of energy loss
• Discuss designing for air circulation

The Pool & Spa Basics online training course is designed to quickly get retailers, builders, distributors, manufacturers, or those new to the industry up to speed on the basics of pool and spa operation. Customers and clients expect to find well-informed people on staff. Whether you are answering phones, working the retail counter, or in the field, the Pool & Spa Basics and Water Chemistry Basics courses will give you the knowledge and confidence you need to serve your customers.

Pool Operator Primer™

Learning Objectives:
• Discuss the types of pools, review how to manage them, identify risk management, and the Certified Pool/Spa Operator program.
• Discuss the various regulatory agencies and their guidelines.
• Analyze the essential calculations used in management of an aquatic facility.
• Recognize the types of pool water contamination and how to treat them.
• Interpret the many types, advantages, disadvantages of disinfection.
• Explain the factors contributing to water balance and how to keep water balanced.

You can quickly improve your knowledge and reduce risk by taking this engaging and, interactive program. This online training program can be the first step to earning CPO® Certification or it can be an excellent stand-alone course in the fundamentals of pool and spa operation. This online curriculum follows the 18 chapters in the NSPF® Pool & Spa Operator™ Handbook, which is included as part of the course.
Recreational Water Illnesses

Learning Objectives:
- Discuss risk management for RWIs
- Review microbes and disease
- Define gastrointestinal, dermal and respiratory RWIs
- List other microorganisms and diseases in aquatic settings
- Review methods for control of RWIs

The Recreational Water Illnesses online training course provides a comprehensive and detailed understanding about the control of RWIs. Created for operators, managers, service companies, suppliers, and health officials, the course takes the participant through the basic steps of identifying the health threats present, unique features to those threats, understanding what the possible consequences would be, identifying ways to reduce the risks and, finally, prioritizing the risk reduction.

The dynamic learning experience includes narration, images, video, and interactive activities, and a copy of the Recreational Water Illnesses handbook. Registrants have access to the online training for six months once purchased and can retain the 114-page handbook as a long-term reference guide.

Water Chemistry Basics™

Learning Objectives:
- Review water balance
- Discuss proper disinfectants
- Identify calculations for breakpoint chlorination
- Define how to handle fecal related contamination and other recreational water illnesses

The Water Chemistry Basics online training course is designed to get retailers, builders, distributors, manufacturers, or those new to the industry up to speed on the basics of water chemistry, water testing, and chemical dosing. The course will help people gain the basic knowledge required to effectively serve your customers, considered in planning and cost estimating. Learning how to calculate for correct water balance using the saturation index, recognizing factors to consider when choosing disinfectant, and understanding operating practices that help prevent the spread of diseases in the pool environment are some of the critical learnings that will arm employees with effective education to properly help their customers.
Anthony Archer-Wills

President of Anthony Archer-Wills, LLC in Copake Falls, NY

Anthony Archer-Wills is one of the world’s foremost authorities on water gardening, responsible for developing many of the new techniques used in the construction of ponds with both concrete and flexible liners. He started his own aquatic nursery and pond construction business in the mid-1960s, and was subsequently invited by the Agricultural Training Board and British Association of Landscape Industries to train companies working in landscape design and construction. Archer-Wills wrote the leading books on the subject – The Water Gardener and Designing Water Gardens – and has lectured extensively worldwide.

Barry Justus, BA, SWD

Registered

President and Founder of Poolscape, Inc. in Toronto Canada (since 1991)

Barry has designed and lectured internationally. He has authored over 30 articles on pool design and construction for numerous magazines. Over 90% of projects designed and built by Poolscape, Inc. from 2005-2011 have won a national or international award.

Bill Kent, Ph.D.

CEO of Team Horner in Fort Lauderdale, FL

Dr. Bill Kent is the entrepreneurial CEO of the Team Horner group of companies, an integrated manufacturer, wholesale distributor, and global exporter of swimming pool products. Bill has served in several nonprofit organizations and was national president of the U.S. swimming pool industry’s national trade association in 1996. In 2015, Bill’s company received national recognition from the American Psychological Association for having a psychologically healthy workplace; Bill currently serves on the Board of Trustees of Keiser University, a Florida-based University with over 20,000 students on 16 campuses, the National Swimming Pool Foundation, the International Swimming Hall of Fame, and the Florida Swimming Pool Association. In June 2015, Bill received his Doctor of Business Administration degree with a concentration in Global Business. Beginning in 2016, Bill is currently transitioning the ownership of his company to an ESOP.
Brian Van Bower, SWD Master  
President of Aquatic Consultants, Inc. in  
Miami, FL  
Ambassador and Co-founder of Genesis 3, Inc.

Bower has more than 45 years of professional experience in the pool and spa industry. He is currently active with two companies: He is President of Aquatic Consultants, Inc., an international consulting and design firm specializing in upscale and unusual pool and waterscape designs and he is also Ambassador and co-founder of Genesis. Bower holds a Florida State Commercial Pool Contractors license (inactive), served the former National Spa and Pool Institute (NSPI) in various capacities since 1979 including President of Region VII (Florida), NSPI National Vice President, Region VII, and he was inducted into the NSPI, Region VII Hall of Fame in 1994. He chaired the NSPI International Design Award Committee from 1997-1999.

Bower has won more than 100 industry design awards and he and his company’s work have been featured in many national periodicals, magazines and television shows including Bob Vila’s Home Again television show, Florida Home and Garden magazine, CNN News, Florida Lifestyles TV show, NBC News, CBS News, Sunday Morning Show 8/2007 & 8/2008, CNBC On The Money 2006, PBS National Television “Spotlight on Safety” segment, Homebuilding Digest show on Home & Garden Television, Architectural Digest, Florida Architecture (front cover), Tycoon, The New York Times, The Wall Street Journal, The Miami Herald, The Orlando Sentinel, Millionaire, Pool and Spa Living, and Florida Trend. His expertise and projects are regularly featured in the industry trade publications, Home Magazine’s TV Show, Ambiance Piscines (France) and Aqua. He has contributed to SPLASH magazine in Australia and his work was prominently featured in the tabletop book, “Dream Pools” by Deborah Dietsch in 2002. For four years Brian was host of his own weekly radio show, “All About Pools and Spas” in South Florida. His firm has projects in Africa, Sri Lanka, Greece, Colombia, all through the Caribbean, British & US Virgin Islands, Bahamas, Bermuda, Canada and all across the US.
Charles E. Hess Jr., RLA, ASLA
Principal of Hess Landscape Architects in Lansdale, PA

Chuck Hess established his eponymous firm in 1998, and has operated as Founding Principal since the firm’s inception. The firm’s design ethos is rooted in the creation of exterior spaces which complement and marry architecture with the natural environment.

After completing his undergraduate studies in Ornamental Horticulture at Delaware Valley College in 1988, Chuck received a Masters of Landscape Architecture from the University of Pennsylvania in 1991. Before founding the firm, Chuck worked at a large, internationally recognized design firm, and then later at a smaller Philadelphia-region design/build firm.

As lead-designer, Chuck is involved in all projects undertaken by the firm. He has over 20 years of experience completing high-end residential commissions. Chuck especially enjoys interacting with clients, other design professionals, and contractors during the design and construction process.

David B. Duensing
President of David B. Duensing & Associates, Inc. in Ponte Vedra Beach, FL
Owner of Aquatic Construction Services, LLC

David B. Duensing & Associates, Inc., one of the most active, experienced and respected design and consulting firms in the worldwide water garden and water feature industry since 1989. Their focus is helping landowners and professionals envision and create exceptional aquatic and land environments for personal and public enjoyment, serving as the ultimate resource of knowledge, capabilities, and creativity. Aquatic Construction Services, LLC., founded 2006, focuses on the construction of very detailed and, at times, extreme water features and waterfalls, as well as remarkable natural stone and coral installation. David, working alongside Anthony Archer-Wills, was the contractor responsible for logistics and construction of the ponds and naturally filtered swimmable pools featured in the 2014 Animal Planet production, Poolmasters. David is past president of the National Association of Pond Professionals (NAPP), and writes and speaks for industry publications and associations.
David Penton, SWD Master

Principal at Fluid Dynamics Pool and Spa Inc. in Fullerton, CA

Penton is known for his attention to detail, honesty and innovation with mechanical systems as his specialty. He is constantly pushing the envelope to maximize energy efficiency and find innovative equipment and plumbing solutions for a project. Fluid Dynamics is involved in some of the highest profile pool construction projects within the Los Angeles area to exclusive clientele. Penton completed the educational requirements to achieve the Genesis’ Society of Watershape Designers (SWD) and is the most recent addition to Genesis’ SWD Master.

David J. Peterson, P.E., SWD Master

President/CEO of Watershape Consulting, Inc. in Solana Beach, CA

Education Council Chairman for Genesis 3, Inc.

Peterson is President/CEO of Watershape Consulting, Inc., an international planning, design, and engineering firm providing owners, architects, contractors, and the legal profession with services relating to residential, commercial, and institutional pools, spas, and water features. He obtained his B.S. Civil Engineering at Cal Poly, San Luis Obispo and is a licensed engineer in several states. Peterson has been in the watershaping industry since 1994 when he began his career designing life support systems for large aquariums and marine mammal exhibits. He was Vice President Engineering at Polaris Pool Systems where he developed and patented several products. He is a prolific writer and is actively involved with trade organizations and code development.
Eric D. Groft, FASLA

Principal of Oehme van Sweden Landscape Architecture (OvS) in Washington, DC

Groft has over 30 years of experience in residential, commercial, and institutional work. He maintains a passion for horticulture and is committed to preserving the legacy of OvS while shepherding its continual evolution. Groft is widely recognized as an industry leader in environmental/wetland restoration, and shoreline stabilization/revetment. He also was an adjudicator for both the competition to re-design the grounds of the Washington Monument and for Luxury Pools’ Pinnacle Awards.

Feras Irikat

Director of Design & Marketing for Lunada Bay Tile; Harbor City, CA

Feras Irikat is the director of design and marketing for Lunada Bay Tile, a leader in the design and production of handcrafted glass, stone, metal, wood and ceramic tiles.

An expert tile designer in all mediums, Irikat holds a bachelor’s degree in interior design and a master’s degree in family and consumer sciences from San Francisco State University where he also did advanced graduate work and research in color theory and color psychology. He has taught color theory, applications and psychology at SFSU, UC Santa Cruz extension, West Valley College, and at design seminars around the world.

His expertise in color theory and color psychology enables him to design and mix color palettes effectively and help to define and guide color trends in tile and home design.
Gene Brown, SWD Master

Founder of Valley Pool & Spa in Kelowna, BC, Canada

Brown is a second-generation pool builder and President of Valley Pool & Spa since 2002. He is Canada’s premier builder of high-end residential and commercial pools and spas. Of particular note is his cast-in-place concrete construction that results in high precision vessels with all-tile interior finishes. From high-rise projects 15 stories above ground to underground pools two stories below grade, Brown has done it all and is the only SWD Master in Canada. He has served the needs of dozens of British Columbia’s hotels, condominiums, casinos, municipalities, and water parks, as well as hundreds of private homeowners.

Greg Andrews

President of Greg Andrews Tile, Inc. in Agoura Hills, CA
Co-founder of National Tile and Stone Authority, Inc., Winnetka, Ca

Andrews is a nationally renowned and award winning tile contractor, having completed some of the most intricate and detail oriented pools throughout the country and is known for his mastery of pool tile installations. He is continually elevating his craft in glass tile installation and always up-to-date with the latest materials and processes required to install glass tile in a pool.

Greg Boruff, SWD Registered

Associate Designer of Questar Pools in Escondido, CA

Boruff is an associate designer with seven years - experience working for Questar Pools. During his tenure with Questar, he has worked side-by-side with renowned designer Skip Phillips, participating in a range of award-winning designs, while honing his understanding of aesthetic, structural and mechanical design elements. His work has been published in national publications and has participated in the design, planning and rendering of some Questar’s most significant projects. Boruff has completed Genesis’ Society of Watershape Designers curriculum as well as other ongoing education requirements. He was also instrumental in the creation of the Audible and Visual Considerations of Water Feature Design program.
Greg Howard
President/CEO of Carecraft, Inc. in Carlsbad, CA

Greg Howard entered the pool industry in 1981 when he was involved with the Spa Wand Company which was sold to Polaris in 1986. He joined Polaris as a Shareholder and Vice President of Operations and eventually assumed the role of President/CEO and worked in that capacity until 2004. Greg joined Carecraft and became the President/CEO in 2006, reorganizing and growing the company into the largest buying group in the industry. He is an expert in operations, business strategies, and organizing personnel and systems to grow companies.

Helena Arahuete, NCARB
Principal of Lautner Associates Helena Arahuete Architect in Playa Del Rey, CA

Arahuete began working with world renowned architect John Lautner in 1971. She served as Project Architect on numerous Lautner projects, and rose to become the Chief Architect in John Lautner’s office until his passing in 1994. She continues to develop state-of-the-art contemporary organic projects that are sculpted right out of their unique site’s environment. Her past and current projects are located in the States of California, Idaho, Michigan, Arizona, Hawaii, Alaska and Australia. Arahuete has been published extensively throughout the world and continues to asked to lecture at a variety of institutions.

James G. Robyn, BA, MBA
President/CEO of BioNova® Natural Pools (North America)

James designs and consults on Natural Swimming Pools/Ponds (NSP’s) throughout the Americas. He has over 30 years of experience in the “traditional” swimming pool business as the owner of Rin Robyn Pools and he has been marketing NSP’s in the Americas as a Partner with the BioNova® Global Head Office in Munich, Germany since 2007. He has authored articles for WaterShapes magazine and Aqua magazine and his work has been featured in Luxury Pools, Signature Pools, WaterShapes, and Aqua magazine as well as numerous other publications.
Janet Lennox Moyer

President of Jan Moyer Design, LLC in Brunswick, NY

Janet Lennox Moyer, IALD, an internationally known lighting designer. As a recipient of many design awards, she has also judged lighting competitions, been published extensively in magazines, newspapers, and books and has taught all over the world since serving as teaching assistant for her undergraduate lighting course at Michigan State University.

Moyer’s practice has included interior, commercial, and residential lighting, but her emphasis shifted to landscape lighting in 1983. Moyer taught landscape lighting at UC Berkeley and Rutgers University in the Landscape Continuing Education for many years. Moyer had also studied plant identification, plant propagation and pathology, garden design and layout at UC Berkeley, Merritt College, and local Extension courses for years. Some of her lighting projects include of Levi Plaza (San Francisco); the Detroit Civic Center; several city blocks in downtown Tacoma, Washington for Pierce Transit and many others.

Jason Jovaag

CEO and Principal of Hammerhead International in Las Vegas, NV

Jason Jovaag is President / CEO of Hammerhead International, a design, engineer, fabrication, and installation of underwater windows. Jason’s “Turn Key” water containment, leak-free glazing is what makes Hammerhead International an industry leader in underwater windows across the globe amongst many Zoos and Aquariums. Jason has integrated his extensive knowledge from working with underwater windows and have created an innovative demand in the pool and spa industry.
Jim Backman
Owner/President of Adroit Energy, Inc., in San Diego, CA

Backman is a 20-year veteran of the hydronics and solar industries and President/CEO of Adroit Energy, Inc. Adroit is a comprehensive mechanical engineering firm and renewable energy integrator. The company specializes in advanced building modeling and integrated mechanical solutions tailored to the specific project energy requirements. Adroit has designed and installed many pool solar and heating systems including unglazed collectors, semi-g glazed collectors, flat plate collectors, evacuated tube collectors and in deck/tennis court systems. Adroit Energy Inc., is headquartered in San Diego, with offices in Honolulu, San Francisco, and San Jose.

Jimmy Reed
President of Rock Solid Tile, Inc. in Los Angeles, CA

Reed is President of Rock Solid Tile, Inc. and has earned the reputation as being among one of the elite contractors in the luxury home building industry. With extensive experience and expertise, Rock Solid specializes in glass mosaic tile installations, featuring all glass tile swimming pools, spas and water features. Reed relentlessly stays on the cutting edge of industry installation products and procedures by attending and participating in shows, seminars and workshops around the world.
Joan Roca, SWD Master
Owner of Imerzion Corp.; Panama

Joan Roca started in the swimming pool industry in 1975 and earned his Industrial Engineering degree in 1984. Joan has been a member of the APSP (former NSPI) since 1982, Certified Pool Operator by NSPF in 1986 and Certified Pool Instructor in 1988. In the ensuing years, he continued his education through more than 200 industry seminars and educational programs. In 2003 he started with Genesis 3 Inc. and became an SWD Master. In 2006 Roca became a CBP, Certified Building Professional by APSP. Pool & Spa News honored Joan Roca as a Master Pool Designer in 2008 and 2014 and his work has been internationally recognized and awarded on many occasions. His creativity has been published around the world in several books and to date in 13 front covers of prestigious magazines such as LUXURY POOLS, AQUA, WATERSHAPES and POOL & SPA NEWS. In 2013 he obtained a Master’s Degree in INCAE Business School and moved his head office to Panama City creating IMERZION CORP the new prestigious pool company by signature of JOAN ROCA MASTER POOL DESIGNER.

John Foster
Director of Sales and Operations for Fountain People; San Marcos, TX

John heads the sales team with a proven track record of developing long-term relationships and exceeding client expectations. Receiving his B.S. in Industrial Technology, John has since attained over 20 years of experience in producing marketable solutions for custom water features in the Municipal, Private Sector, Aquatic Play, Themed Entertainment and Performing Arts markets, as well as solutions for pumping equipment, chemical treatment, process filtration, heat and energy transfer systems, and SCADA for a variety of industries including turf, municipal, fire, reverse osmosis, sea water and harsh environments.
Kate Wiseman, MLA
Principal Landscape Designer at Sage Outdoor Designs in San Diego, CA

Wiseman is the Principal landscape designer at Sage Outdoor Designs, a firm specializing in beautiful residential landscapes in Southern California. Wiseman’s designs have been widely published both locally and nationally and she has been recognized in San Diego Home and Garden Lifestyles “Gardens of the Year” contest four times, including the grand prize winning design in 2007. Wiseman authors a blog focused on water-wise garden design and outdoor living.

Kevin Ruddy, SWD Master
President and Founder of Omega Pool Structures, Inc. in Toms River, NJ (Since 1984).

Omega Pool Structures, Inc. is a design, engineering, and consulting firm with a construction division that provides professional services focused on the specialized applications and techniques used in indoor/outdoor residential, commercial, and special needs facilities. Omega consults throughout the country with homeowners, architects, landscape architects, engineers, and builders. Ruddy has been at the forefront of the indoor swimming pool industry for the past 28 years and has advised to help ensure that each project is built with foresight and precision. Ruddy received the Humanitarian Award for his service and contributions pertaining to a therapeutic indoor swimming facility for the ARC Association (People with Intellectual and Developmental Disabilities).
Leslie G. Reed  
President and Principal Engineering Geologist of Geotechnical Exploration Inc. in San Diego, CA

Reed co-founded Geotechnical Exploration upon returning from the Trans Alaska Pipeline Project where he served as Senior Below Ground Engineer between the Yukon River and the Brooks Range. His primary task was to cross 8 rivers below ground while they were frozen solid. His greatest technical interest lies in surface and groundwater flow as they relate to the destabilization of bearing soil and geologic conditions. Due to Geotechnical Explorations reputation as problem solvers for adverse below ground conditions, 5 to 50 million dollar single family home projects have become a major part of their work for the last 25 years. The outdoor living spaces associated with such projects, including swimming pools and waterscape features, are always beautiful and unique but are often very challenging. Reed has lectured and published extensively including the mapping and naming of the most critically expansive clay unit in San Diego County of Southern California.

Merry Wise  
President of Retrospective publishing, former Vice President of Wise Pools in Willis, TX

Wise worked in partnership with her husband, prominent pool designer and builder Charles Wise, for more than 40 years of the company’s 46 year history. Wise Pools is a local custom gunite swimming pool and spa design, construction and retail firm located in the Conroe-Woodlands area and was recently sold to a previous customer. Wise has experience in all aspects of the pool business. Now, a professional freelance writer, Wise contributes regularly to Aqua Magazine, has been published in several local and national publications and is the author of two books, including Cruising Through Pool Care the Wise Way, a pool and spa care guide for pool and spa owners and trade personnel.
Michael Nantz, SWD Master
President of Elite Concepts, Inc. in Lewisville, TX.

Nantz is President of Elite Concepts, Inc., an international, progressive design firm in the Dallas, Texas area since 1991. He has worked throughout the U.S., Caribbean, Costa Rica, and Mexico designing beautiful pools and outdoor spaces. Considered one of the industry’s most creative designers, Nantz is frequently retained by Architects, pool builders and other industry professionals for design and construction services.

Michael Stone
Owner of Construction Programs & Results, Inc. in Camas, WA.

Michael has more than five decades of experience in the building and remodeling industry. Starting as a “gopher” in his father’s construction company in the early 50’s, Michael has worked in the trade since 1957. He carried a plumbing license for 14 years and worked in a variety of other building trades. Michael has taken more than 3700 remodeling sales calls and sold or worked on over 1500 homes and commercial buildings. He was the National Association of Home Builders National Remodeler of the Month in February, 1983. A frequent speaker at national, regional and state conventions on construction business management, estimating, sales and the use of computers in remodeling and new construction.
Nate Mullen
Owner of Nate Mullen Visual Concepts; Valley Center, CA

Nate is a nationally known figure in the landscape lighting world, having close to 30 years’ experience as a landscape lighting artist and manufacturer. While having installed or touched more than 50,000 lights, his experience gave way to writing four books on landscape lighting, the latest one called “The Professional Guild to landscape Lighting”. In 1995, Nate started Unique Lighting Systems and sold the company in 2011 to Toro. During that time, he patented 24 items, one being the Equalizer Hub Method of Wiring. Nate has written many articles for numerous trade magazines and spoken all over the country at various conventions and events. Nate continues to be active in landscape lighting working part time with Unique Lighting and being involved in larger lighting projects.

Peter Davidson
President of Current Systems, Inc. in Ventura, CA

Davidson started his testing with a plywood test tank in a carport in Malibu, Calif. and resulted in two test pattern pumping systems that were patented in the 1980’s and have become the forerunners of today’s Riverflow Pump System. Over the years, Davidson has developed various nozzles, manifolds, suction grates and sumps, designed to deliver optimum flow capacities safely. Davidson’s pursuit has been focused on high-volume rather than high-pressure as a means to provide appropriate current for a variety of applications. Current Systems, Inc. also pioneered the introduction of variable frequency drives in the swimming pool industry.
Paolo Benedetti, SWD Master

Principal / Designer for Aquatic Technology Pool & Spa in Morgan Hill, CA

Benedetti founded Aquatic Technology Pool & Spa, an international consulting and design firm specializing in high-end residential and commercial projects. He is an artist, watershape architect, general and pool contractor, expert witness, and consultant to owners, architects, landscape architects, and builders throughout the world. He is a prolific writer, authoring articles for various trade magazines and administering the Genesis Forum with his acute attention to detail and robust experience in construction details, means, and methods.

Randy Dukes

Technical Sales Director, Aquavations Corp in Miami, FL

Board Member of the National Plasterers Council (NPC), Past Chairman of NPC Education Committee, NPC National Technical Advisor

Dukes is regarded as one of the foremost authorities in the pool plaster industry relating to deterioration, discoloration, and staining phenomenon that are commonly associated with cement-based pool coatings. He has served as a moderator and keynote speaker for many of the National Plasterers Conventions starting in 1992, and has instructed courses on “The Science of Cementitious Pool Finishes, Startups, and Maintenance.” Dukes has spent a considerable amount of time traveling throughout the U.S. researching and identifying pool surface problems and their relationship to application, water chemistry, and chemical abuse.

Richard C. Kremer

Designer/Project Manager at Watershape Consulting, Inc. in Solana Beach, CA

Kremer has been on the leading edge of high-end residential and commercial pool design for the last 6 years under the direction of David Peterson at Watershape Consulting. Moving forward with the design industry, he’s integrated drawings from hand sketches to AutoCAD through to full BIM modeling in Revit. He is proficient with architectural and structural detailing as well as coordinating multiple CAD files both internally and with several external consultants simultaneously.
Rick Chafey, SWD Master

Co-Owner of Red Rock Contractors in Mesa, AZ

Rick Chafey is the co-owner of the international award winning group of companies; Red Rock Contractors, Red Rock Pools and Spas, and Red Rock Design founded in 1998. He received his Bachelors of Science in Construction Engineering & Management as an award-winning graduate from Arizona State University in 1995. Throughout high school and college Rick worked within many of the construction trades as well as running his own remodeling and carpentry business and worked as a home building superintendent. Upon graduation Rick was hired as the Director of Construction for local manufacturing company, completing multiple projects in Arizona, New Mexico, Texas, and Colorado ranging from 150,000 sf. manufacturing plants to retail centers, residential subdivision developments, and commercial remodels and tenant improvements. Rick has taken his education and his real life experience and applied it to his group of companies; helping to develop one of the most complete Luxury Design/Build organizations doing work nationally and internationally. Rick, is a Master Member of the Society of Water Shape Designers and also serves on the Genesis Advisory Board. Red Rock has had multiple projects profiled on HGTV, Discovery Channel and Fox News, etc. They have been named by Pool and Spa News as a “Master of Design” and have had projects grace the covers of Aqua Magazine, Pool and Spa News, Luxury Pools, and Phoenix Home and Garden.

Roger Soares, II, SWD Master

President at Hydroscapes, LLC in Scottsdale, AZ

Award-winning designer and constructor of luxury pools, spas and water features Soares has more than 30 years of construction experience including construction of custom homes in San Diego CA, Aspen CO, Pennsylvania, New Jersey and New York with a strong base in commercial and industrial concrete and plumbing. Celebrating its 16th year of operation, Soares with the help of his wife and business partner Sheri, build and/or design an average of 6-20 projects a year and is able to provide the personal attention their upscale clientele deserve. Known for the creation of innovative pool designs that are in sync with every part of a landscape, Hydroscapes installations include intricate and complex design solutions for the most challenging terrains and has served clients throughout the United States and internationally.
Scott Hester, P.E.
President of Counsilman • Hunsaker in St. Louis, MO

As President of the Counsilman • Hunsaker team, Scott is responsible for leading the daily operations of the company. He provides comprehensive industry experiences in all aspects of Counsilman• Hunsaker including business development, design and engineering, quality control and facility operations and services. Known as a high-integrity, energetic leader Scott has a diverse portfolio of experience in aquatic facilities spanning all market sectors.

Scott is also a recognized leader in the aquatics industry and has shared this knowledge by providing educational based presentations throughout the country. A past recipient of the Aquatics International Power 25 award and has also published numerous articles ranging in topics from aquatic facility design to facility operations.

Scot Hunsaker
CEO of Ardent Group in Chesterfield, MO

Scot Hunsaker purchased a small engineering firm operating as a sole proprietorship from his father. That firm, Counsilman-Hunsaker, has designed aquatic facilities, including Olympic venues, all over the world. During his tenure as CEO and owner, he grew Counsilman-Hunsaker’s revenue by a factor of 7, quadrupled the number of employees, opened 4 new offices in the US and went from being licensed to operate in 10 states to operating in all 50 plus 3 Canadian provinces.

He sold Counsilman-Hunsaker to the employees for cash in 2012. He has spoken on the topic of ownership thinking across the US and internationally. He is also the author of 30 published articles. He also serves on several boards of directors. In 2013, he formed Ardent Consulting whose mission is to help CEOs and Business owners prepare for their ultimate transition with a particular focus of teaching employees how to think like owners.
Skip Phillips, SWD Master
President of Questar Pools and Spas, Inc. in Escondido, CA
Ambassador and Co-founder of Genesis 3, Inc

Skip Phillips is one of the world’s most renowned designers and builders of custom swimming pools, spas and other forms of aquatic architecture. His design firm, Questar Pools and Spas, has been retained internationally on acclaimed and award-winning works of art for decades, and his attention to detail and high standards is second-to-none. His rise to public prominence first crystallized in 1993 when The Robb Report declared him “the world’s most influential swimming pool designer.” Since then he has received almost-constant coverage in trade magazines, television segments including multiple HGTV appearances, newspapers and prestigious national publications including Better Homes & Gardens, New York Times, Millionaire, Tycoon, Architectural Digest, and The Wall Street Journal.

In recent years, his high-flying profile has spread internationally through sources including Germany’s IQ magazine, Canada’s World’s Best, the Italian design journal Piscine Oggi, and by way of his live educational presentations in Italy, Australia, Bali and Germany. Many regard him as the world’s leading authority on vanishing edge design (his vanishing-edge program was recently accepted for Continuing Education Units for the Architectural Institute of British Columbia.) Phillips has provided expert witness services for over 350 construction defect cases and is regularly interviewed for magazines throughout the world. Prior to co-founding Genesis 3, Inc., Phillips was active with the National Spa and Pool Institute (NSPI), serving as National President and hosting the first Congressional reception for the pool and spa industry in Washington, DC in 1993.

Steve Gutai
Director of Product Development: Hydraulics & Heating Systems for Zodiac Pool Systems, Inc. in Vista, CA

Specializes in product development and marketing of swimming pool equipment such as pumps, filters, and heating systems. Over 20 years in the swimming pool industry with extensive experience in technical education and standards writing.

Gutai has over 20 years of experience in the industry developing products, teaching technical subjects, and serving on standards writing committees. He has written articles on technical subjects such as pumps, motors, filtration, valve technology, and hydraulics that have been published in every major pool trade journal in North America. His education programs have spanned the globe and he brings a unique background of product development, sales, and marketing to the team.
Terry Brannon, P.E.

President of The Brannon Corporation in Tyler, TX

Brannon began his career in public works, beginning with the Cities of Irving and Tyler, Texas before founding The Brannon Corporation. He continues to specialize in public works projects but the firm has carved out an aquatic niche using their expertise in water conveyance and treatment and structural design. Brannon is licensed in several states and sits on the Board of Directors for two international corporations.

Thomas A. Heinz, AIA

Architect and Author

Thomas A. Heinz, AIA is an Architect, photographer, designer and author. He graduated from University of Illinois, Urbana and gone to graduate school at Northwestern University. He Began the program for Historic Preservation at the University of Illinois, Urbana Graduate School of Architecture. His architectural practice has been active from New York to California and about 10 states between. He has rebuilt a Frank Lloyd Wright House originally built in 1913 near Minneapolis, for the Metropolitan Museum of Art in New York City, American Wing using the original materials. Over 40 of Wright’s buildings have been under his control over the years. His reproductions of designs of Frank Lloyd Wright have been sold coast to coast as well as dinnerware and furniture. He has published about 35 books, taken over 150,000 photographs for these publications as well as for his hundreds of talks in Europe, the USA and Japan.
Thomas Lachocki, Ph.D.
CEO of the U.S. National Swimming Pool Foundation

Dr. Thomas Lachocki has served as the Chief Executive Officer of the U.S. National Swimming Pool Foundation for 11 years. At NSPF Tom has championed efforts to create expansion and prevent contraction in the field of aquatics: NSPF has funded about $4 million in grants, half of which foster growth by demonstrating the benefits of aquatic immersion and activity and the other half help prevent contraction in the aquatics industry by exploring how to prevent drowning, injury, and illness. NSPF has further spotlighted and fostered scientific advances in the field by hosting the World Aquatic Health Conference since 2004, and the NSPF Certified Pool/Spa Operator® (CPO®) certification and other courses reach about 30,000 people each year.

Prior to joining NSPF, Tom was Director of Product Development with BioLab (now a KIK Company) where he led in creating recreational water field products, generating over $150 million in annual sales. He is co-inventor on 8 patents and has been named by Aquatics International as one of the 25 most influential people in aquatics. Tom earned his Ph.D. in Organic Chemistry from Louisiana State University and a B.S. in Chemistry from Lock Haven University.

William T. Drakeley, Jr., SWD Master
Principal and founder of Drakeley Pool Company
Principal and founder of Drakeley Industries in Bethlehem, CT

Drakeley is principal and founder of Drakeley Pool Company, a luxury design and build firm based in New England, and Drakeley Industries, an international consulting firm focusing on shotcrete applications and techniques, notably providing training for the New York City Metropolitan Transit Authority underground tunneling projects. Bill is the first and only pool builder to sit as a Voting Member of the American Concrete Institute’s (ACI) Committee 506 – Shotcrete and serves as Secretary of ACI C660 Nozzleman Certification Task Group. Bill is also the incoming President of the American Shotcrete Association (ASA) and the Chairman of the ASA’s Pool and Recreational Shotcrete Committee. An educator and advocate for high industry standards, Bill has conducted trainings for Genesis Construction School, the Colorado School of Mines, the American Society of Landscape Architects CT Chapter, World of Concrete, Aqua Show, and the lamong others. His technical writings have been widely published in trade magazines.
Lisa Ryckeley
Director of Operations for Genesis

Ryckeley uses her extensive experience in logistics, event coordination, trade show management, client bookkeeping, and office management to make the Genesis system operate efficiently and with ease for the students, faculty, and venue staff.

With more than 25 years of experience in the pool and spa industry, Ryckeley was the executive assistant and event management for NSPI in Sarasota, FL. prior to her joining Genesis and maintains the highest level of professionalism and standards upon which Genesis has been built upon.

Lauren Stack
NSPF Mission Development Director, National Swimming Pool Foundation

Lauren joined the NSPF leadership team in 2015 as Mission Development Director – National Accounts. Her experience with the swimming pool and hot tub industry extends back twenty years. The first half of her career she worked for Aristech Acrylics, a sheet supplier to the hot tub industry. The latter half of her career was spent at the Association of Pool & Spa Professionals in a number of capacities, but primarily as liaison to its volunteer Councils and Committees. Lauren has a BS in Chemistry and an MBA, both from the University of Pittsburgh. Since the merger Lauren has worked to ensure that the Foundation “did no harm” to the extraordinary Genesis culture. And, she currently strives to ensure Genesis’ reach, profitability and influence strengthen in 2017 and beyond to further the mission of the Foundation in helping people live healthier lives through aquatics.

Katie Wilke Junkers
Education Coordinator for Genesis

Katie has worked with Genesis since 2007 handling their continuing education requirements, educational database, attendee transcripts and recently the development of Genesis’ social media and marketing campaigns. Her Genesis relationship having been built from the days of the AQUA Show, Katie has been working in the pool and spa industry for more than 15 years, and has extensive knowledge of the industry and understands the necessity of continuing education. Katie holds a B.S. in AgriBusiness with a minor in Broadcasting from UW-Platteville.
SWD Masters Gallery

Paolo Benedetti
Aquatic Technology Pool & Spa

Gene Brown
Valley Pool & Spa

Brian Van Bower
Aquatic Consultants

Rick Chafey
Red Rock Pools & Spas
Kevin Ruddy
Omega Pool Structures Inc.

David Peterson P.E.
Watershape Consulting Inc.

Skip Phillips
Questar Pools & Spas

Joan Roca
Joan Roca Master Pool Designer

Kevin Ruddy
Omega Pool Structures Inc.
James Scott
Group Works LLC

Roger Soares II
Hydroscapes LLC

Steven Swanson
The Pool Company

Society of Watershape Designers ™
### 2016 International Pool | Spa | Patio Expo

**Schedule**

<table>
<thead>
<tr>
<th>Session Code</th>
<th>Title</th>
<th>Date(s)</th>
<th>Time(s)</th>
<th>Length</th>
<th>CEUs</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D101</td>
<td>Introduction to Perspective Drawing</td>
<td>Sun Oct 30</td>
<td>8:00 am - 5:00 pm</td>
<td>8:00 hrs</td>
<td>0.8 IACET CEUs</td>
<td>Michael Nantz</td>
</tr>
<tr>
<td>C201</td>
<td>Basic Pool Construction</td>
<td>Sun Oct 30 - Tue Nov 1</td>
<td>8:00 am - 5:00 pm</td>
<td>24:00 hrs</td>
<td>2.4 IACET CEUS</td>
<td>Greg Andrews, Paolo Benedetti, Terry Brannon, Randy Dukes, Bill Drakeley, David Peterson, Les Reed</td>
</tr>
<tr>
<td>D211</td>
<td>Elements of Design</td>
<td>Mon Oct 31 - Tue Nov 1</td>
<td>8:00 am - 5:00 pm</td>
<td>16:00 hrs</td>
<td>1.6 IACET CEUs</td>
<td>Kate Wiseman</td>
</tr>
<tr>
<td>D231</td>
<td>Color Theory &amp; Its Application</td>
<td>Mon Oct 31 - Tue Nov 1</td>
<td>8:00 am - 5:00 pm</td>
<td>16:00 hrs</td>
<td>1.6 IACET CEUs</td>
<td>Feras Irikat</td>
</tr>
<tr>
<td>E211</td>
<td>Basic Fluid Engineering</td>
<td>Mon Oct 31 - Tue Nov 1</td>
<td>8:00 am - 5:00 pm</td>
<td>16:00 hrs</td>
<td>1.6 IACET CEUs</td>
<td>David Peterson</td>
</tr>
<tr>
<td>D371</td>
<td>Remodel Candidate - Opening The Door To Possibilities</td>
<td>Wed Nov 2</td>
<td>8:00 am - 9:45 am</td>
<td>1:45 hrs</td>
<td>.2 IACET CEUs</td>
<td>Mike Nantz</td>
</tr>
<tr>
<td>C231</td>
<td>Efficient Installations: Equipment, Controls &amp; Underwater Speakers</td>
<td>Wed Nov 2</td>
<td>8:00 am - 9:45 am</td>
<td>1:45 hrs</td>
<td>.2 IACET CEUs</td>
<td>Paolo Benedetti</td>
</tr>
<tr>
<td>B262</td>
<td>Strong Company Culture Reaps Strong Profits</td>
<td>Wed Nov 2</td>
<td>8:00 am - 9:45 am</td>
<td>1:45 hrs</td>
<td>.2 IACET CEUs</td>
<td>Bill Kent</td>
</tr>
<tr>
<td>C232</td>
<td>Designing and Installing Underwater Windows</td>
<td>Wed Nov 2</td>
<td>10:30 am - 11:30 am</td>
<td>1 hr</td>
<td>.1 IACET CEU</td>
<td>Jason Jovaag, Chris Trevathan (Lifestyle Booth 657)</td>
</tr>
<tr>
<td>D131</td>
<td>Identifying New Business &amp; Design Trends</td>
<td>Wed Nov 2</td>
<td>12 pm - 1:30 pm</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Feras Irikat (Lifestyle Booth 657)</td>
</tr>
<tr>
<td>B111</td>
<td>Genesis Lifestyle Program</td>
<td>Wed Nov 2</td>
<td>2:30 pm - 4:00 pm</td>
<td>Non-Accredited</td>
<td></td>
<td>Brian Van Bower, Steve Griessel (Lifestyle Booth 657)</td>
</tr>
<tr>
<td>E406</td>
<td>The Technical Aspects of Shotcrete</td>
<td>Thur Nov 3</td>
<td>8:00 am - 9:30 am</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Bill Drakeley</td>
</tr>
<tr>
<td>B251</td>
<td>Teaching Employees to Think Like Owners</td>
<td>Thur Nov 3</td>
<td>8:00 am - 9:30 am</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Scot Hunsaker</td>
</tr>
<tr>
<td>C171</td>
<td>Project Profiles - Grass Edge Overflow, Clear Underwater Panels and More</td>
<td>Thur Nov 3</td>
<td>8:00 am - 9:30 am</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Brian Van Bower</td>
</tr>
<tr>
<td>D363</td>
<td>Design Considerations for Water Features</td>
<td>Thur Nov 3</td>
<td>9:45 am - 11:15 am</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>John Foster</td>
</tr>
<tr>
<td>C171</td>
<td>Project Profiles - An Interactive Discussion on Design and Construction (Spanish)</td>
<td>Thur Nov 3</td>
<td>9:45 am - 11:15 am</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Joan Roca</td>
</tr>
<tr>
<td>E402</td>
<td>Difficult Sites - Technically Demanding Projects and Cast-in-Place Concrete</td>
<td>Thur Nov 3</td>
<td>11:30 am - 1:00 pm</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>David Peterson (Lifestyle Booth 657)</td>
</tr>
<tr>
<td>D123</td>
<td>Trends in Outdoor Design</td>
<td>Thur Nov 3</td>
<td>1:30 pm - 2:30 pm</td>
<td>1:00 hr</td>
<td>.1 IACET CEU</td>
<td>Kate Wiseman (Lifestyle Booth 657)</td>
</tr>
<tr>
<td>C171</td>
<td>Project Profiles - An Interactive Discussion on Design and Construction</td>
<td>Thur Nov 3</td>
<td>3:00 pm - 4:30 pm</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Gene Brown, Skip Phillips (Lifestyle Booth 657)</td>
</tr>
<tr>
<td>B211</td>
<td>Genesis Family Reunion and Winemaker Dinner</td>
<td>Thur Nov 3</td>
<td>7:00 pm</td>
<td>3:00 hrs</td>
<td>Non-Accredited</td>
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<tr>
<td>C151</td>
<td>Proper Installation With a Comprehensive Plan (DID) Design, Install and Documentation</td>
<td>Fri Nov 4</td>
<td>8:00 am - 9:45 am</td>
<td>1:45 hrs</td>
<td>.2 IACET CEUs</td>
<td>Nate Mullen</td>
</tr>
<tr>
<td>C308</td>
<td>The Beauty of the Edge - The Definitive, Internationally Acclaimed Vanishing Edge &amp; Water-in-Transit Design</td>
<td>Fri Nov 4</td>
<td>8:00 am - 9:45 am</td>
<td>1:45 hrs</td>
<td>.2 IACET CEUs</td>
<td>Skip Phillips</td>
</tr>
<tr>
<td>D345</td>
<td>The Art of Landscape / Architectural Lighting and How to Paint A Lighting Portait</td>
<td>Fri Nov 4</td>
<td>10:30 am - 12:00 pm</td>
<td>1:30 hrs</td>
<td>.2 IACET CEUs</td>
<td>Nate Mullen (Lifestyle Booth 657)</td>
</tr>
</tbody>
</table>
2016 World Aquatic Health Conference  
Oct 19-21, 2016  
Sheraton Music City  
777 McGavock Pike  
Nashville, TN 37214  
www.thewahc.org

2016 Master Pools Guild (members only)  
Oct 19-23, 2016  
Hamilton, Bermuda  
http://mpgmeeting.weebly.com/

C171: Project Profiles – An Interactive Discussion on Design and Construction  
Sat Oct 22  
2:00 hrs  
.2 IACET CEUs  
Brian Van Bower

Tour: Hamilton Princess Hotel Pool  
Sat Oct 22  
1:30 hrs  
.2 IACET CEUs

Southwest Pool & Spa Show  
Jan 17-20, 2017  
Henry B. Gonzalez Convention Center  
200 E Market St  
San Antonio, TX 78205  
http://www.swpsshow.com/

D271: 20th Century Architectural Styles  
Tue Jan 17 - Wed Jan 18  
8:00am – 5:00pm  
16:00 hrs  
1.6 IACET CEUs  
Tom Heinz

D179: Working with Architects  
Thu Jan 19  
8:30 am - 10:00 am  
1:30 hrs  
0.2 IACET CEUs  
Tom Heinz and Mike Nantz

E201: State-of-the-Art Spa Details  
Thu Jan 19  
10:15 am - 11:45 am  
1:50 hrs  
0.2 IACET CEUs  
David Peterson

D181: Major Renovation of Pools – Design and Construction Considerations  
Fri Jan 20  
8:30 am - 11:30 am  
3:00 hrs  
0.3 IACET CEUs  
Mike Nantz

The Pool & Spa Show  
Jan 24-25, 2017  
Atlantic City Conv Cntr.  
1 Convention Blvd  
Atlantic City, NJ 08401  
www.thepoolandspashow.com

Tue Jan 24  
8:30 am - 11:45 am  
3:00 hrs  
0.3 IACET CEUs  
Bill Drakeley

2017 NPC Conference

E211: Basic Fluid Engineering  
Tue Feb 7 - Wed Feb 8  
8:00 am - 5:00 pm  
16:00 hrs  
1.6 IACET CEUs  
David Peterson

C207: A Plaster Crew's Guide to Shotcrete/Gunite Issues  
1:30 hrs  
0.2 IACET CEUs  
Bill Drakeley

C108: Cementitious Pool Finishes  
October 23-24, 2017  
Seattle, WA  
http://mpgmeeting.weebly.com/

2017 Master Pools Guild  
October 23-24, 2017  
Seattle, WA  
http://mpgmeeting.weebly.com/

D231: Color Theory and Its Application  
Mon Oct 23 - Tue Oct 24  
8:00 am - 5:00 pm  
16:00 hrs  
1.6 IACET CEUs  
Feras Irikat

Please check the www.genesis3.com website for the most current schedule information and changes.
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