



AIA-approved CEU classes (AIA Provider E240)
***Each class is worth 1 LU/HSW, unless otherwise noted**

Contact your local TLC office to schedule or email us at info@tlc-eng.com.

HEALTHCARE 101: ENGINEERING FOR HEALTHCARE (HC101)

This course presents a view of how design drives the engineering spaces for a hospital (I-2 occupancy type). Emphasis is placed on how the various departments in the hospital have different space requirements and how a designer can leverage spaces within a building's total volume. Learn about standard ratios/sf suitable for programming/schematic design efforts and broaden your understanding of engineered system space requirements.

AIA 2030 CHALLENGE (2030C)

This course provides an in-depth overview of the 2030 Challenge, asking the global architecture and building community to adopt design and construction practices that will lead to net-zero energy buildings by the year 2030.

COMMISSIONING IN THE REAL WORLD (BCX001) LU AND HSW CREDIT

Commissioning roles, responsibilities, forms and procedures, professional associations and benefits are covered in this course. The instructor offers proof of commissioning saving energy as well as best practices. The various types of commissioning are addressed, along with sample projects and common errors found in commissioning.

THE ROLE OF WELLNESS IN BUILDINGS (WELLINBLDG)

Learn about current methodologies and practices to design and operate buildings that promote the wellness of building occupants.

AR, VR AND AI - ACRONYMS THAT WILL CHANGE HEALTHCARE AND YOUR DESIGN (ARVRAI)

Advanced technologies are driving healthcare to new solutions; facilities need to adapt to meet these needs. Augmented Reality (AR), Virtual Reality (VR), Artificial Intelligence (AI) and 3D printing will dramatically change healthcare. The convergence of AR, VR, AI, and 3D printers with medical devices, building systems, electronic medical records, and infrastructure requires new design considerations. These items create workflow challenges, systems integration issues and a need for changes in our healthcare design solutions.

AIR, WATER, LIGHT, SOUND: ESSENTIALS FOR A HEALTHY BUILDING (AWLEHB)

This course provides an overview of the current healthy building movement as well as an in-depth study of the air, water, light and acoustical requirements / portions of the WELL Certification process.

NOT EVEN THE 3 LITTLE PIGS BUILT THEIR HOUSES OF GLASS: IMPACT OF IECC CHANGES ON ARCHITECTURE

Three separate classes help design and construction teams implement energy aspects of major code changes:

1. 2015 IECC 3PIGS2015* (available for distance learning)
2. 2018 IECC 3 PIGS2018PHL
3. 2018 IECC changes to Florida Energy Code 3PIGFL18

HIGH PERFORMANCE HEALTHCARE (HPHC)

This discussion of individual building systems and options helps you to learn more about ASHRAE's Advanced Energy Design Guide for Hospitals and Integrated Design Lab's Targeting 100 as the basis for how energy efficiency may be achieved in medical facilities.

LED LIGHTING: SOLVING ENERGY CHALLENGES AND BENEFITS FOR BUILDING USERS (LEDL)

This course covers the fundamentals of LED technology, an explanation of system components, benefits over traditional lighting, how to apply lighting control strategies, how lighting can benefit building users and the challenges when bridging from traditional to LED systems.

HVAC BASICS (HVAC01)

This course provides architects with enough information to help them evaluate space requirements, suitability of various HVAC system types and more.



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STRUCTURAL ENGINEERING FUNDAMENTALS (STR001)

This course provides a general overview of structural engineering with a focus on primary structural systems, drawings, details and symbols and an understanding of coordination required with other disciplines.

THE DARK KNIGHT, CODE ENFORCER – THE IMPACT OF NEW ENERGY CODES AND LEED V4 ON LIGHTING DESIGN (DKCE)

Gotham City has adopted IECC 2015 and the impact of updated energy codes on lighting is significant. This presentation addresses lighting power density, daylighting and sky lighting, mandatory lighting controls and how all these changes interact with WELL Building Standards and LEED V4.

ENERGY WIZARD ENERGY MODELING WITH IESVE FOR ENGINEERS (WIZPRO)

This course is a lively and interactive demonstration of how architects can integrate energy modeling into their design process to inform their schematic phase design decisions. The presenter divides the audience into competitive teams and engages them as participants in the design process, demonstrating how software can influence building geometry, orientation, daylighting, insulation, glazing, etc. and lay the foundation for truly low energy intensity, high-performance green buildings. The winning team will almost certainly conclude the session with a design that exceeds today's codes by at least 20 percent before ever modifying any of the mechanical systems.

CAN YOU HEAR ME NOW - DISTRIBUTED ANTENNAE SYSTEMS (CYHMN)

This class focuses on Distributed Antenna Systems and how they address two very important needs for a facility. First they improve the quality of cell phone signals inside the facility which increases user satisfaction and productivity. Secondly they improve the radio reception for first responders during an emergency.

WOOD BASICS AND DESIGN (WBD)

Introduces attendees to wood types and nomenclature, including wood strength resources, framing diagrams, and key coordination items for wood buildings. The presentation dives into the gravity and lateral design of a wood building as well as each part of the wood building gravity and lateral system with simple "Tips" and "Warnings" to provide key takeaways for viewers. Important references to codes, manufacturers, and websites are provided through-out the presentation for future reference or more information.

FINDING THE SKELETONS AND KILLING THE ENERGY HOGS (SKEL)

Review of how to reduce energy and water demands, the newly required new building commissioning requirements, how energy auditing improves existing buildings and EbCx to identify and kill energy hogs, as well as how to verify performance improvement.

WHAT CAN SMART BUILDINGS DO FOR ME? (SB)

Overview of smart buildings, discussion of architectural elements, MEP systems, and technology working together to result in buildings that have achieved various third party certification in this area.

WALK DON'T RUN - TAKING STEPS TO CHANGE SUSTAINABLE DESIGNS INTO NZ BUILDING DESIGNS (TSNZ)

This collaborative presentation discusses the current initiatives regarding high performance buildings at the University of Central Florida and covers the economics, efficiency, and design components of a recent 128,410 square foot project. The rising energy costs and growing building portfolio require early participation in planning and forward-thinking in design for energy security and reliability.