

ASPE - Chicago Chapter
Education Committee
1918 North Larrabee St.
Chicago, Illinois 60614



Chicago Chapter

Presents a 10 week course in

“Advanced Plumbing Systems & Equipment Selection”

The course will be conveniently located at the offices of:

OWP/P
111 West Washington Street
Room 1212
Chicago, Illinois

Primary Instructors:

Julius Ballanco, P.E., CPD
Daniel Fagan, P.E., CPD
Joe Ficek, CPD

Schedule

Classes start October 16, 2009
Classes end December 8, 2009

Classes will be held on
Tuesdays 5:30 PM through 8:00 PM

The course has been assigned 2.5 CEU's

Certificate of Course Completion
will be issued by ASPE Chicago
upon successfully passing this course

Course fees
\$650.00 for ASPE members
\$825.00 for non members

Questions can be answered by:
Dan Fagan, OWP/P. 312-960-8301

This course is designed to provide individuals who have knowledge of basic plumbing design with the organizational tools and techniques required to act as a project engineer. It is intended primarily for individuals involved in the Architectural, Engineering and Construction industries, and assumes prior knowledge regarding plumbing engineering. Prerequisites for the course include completion of both semesters of the “Plumbing Engineering Basics” course or a minimum of three years experience in the field of plumbing engineering at a design level. Please submit recommendations from current or previous employers to verify experience.

The course will focus on the project process, with three “sample” buildings of different types used to illustrate the procedures used in designing plumbing systems from project startup to delivery of construction documents. Topics covered will include code analysis, preliminary utility sizing, equipment space allocation, minimum fixture quantities, systems and equipment selection, drawing presentation and specifications. Over the ten-week duration of the course, the three “sample” buildings will be designed by the class in a manner similar to projects completed in the Architectural/Engineering industry. In addition to the three primary instructors who will present the majority of the topics, there will be presentations from various equipment and systems specialists regarding the selection of large equipment, such as booster pumps and water heaters. A full listing of the topics to be covered is indicated in the class schedule inside this announcement.

Materials provided as part of your course fee will be:

“Advanced Plumbing Technology”
Alfred E. Steele, PE

“Domestic Water Heater Design Manual”
ASPE Publication

Because of space limitations and in order to provide personalized instruction, class size is limited to only 20 students. It is anticipated that the class will be full, therefore enrollment will be on first come, first serve basis. Registration in the class will not be guaranteed until registration form **and** full payment are received.

Deadline for enrollment September 18, 2009

Advanced Plumbing Systems and Equipment - Class Schedule

Instructors

Julius Ballanco, P.E.CPD, is President of JB Engineering and Code Consulting, P.C. His firm specializes in code and standard consulting in the areas of life safety, fire protection, plumbing and mechanical engineering. He is a well-known lecturer, having instructed over 1,000 seminars. Mr. Ballanco is also a monthly columnist in both *Plumbing & Mechanical* and *PM Engineer* magazines. He has authored the BOCA National Plumbing Code Commentary and the Plumbing of Residential Fire Sprinklers and has also co-authored the Illustrated National Plumbing Code Design Manual. Mr. Ballanco serves on many national standard committees, including ANSI/ASME, NSF, and ASSE. He also is the President of the ASPE National Board of Directors. A graduate of Stevens Institute of Technology, he is both a Registered Professional Engineer and Licensed Master Plumber.

Daniel Fagan, P.E., CPD is Director of Mechanical Engineering at OWP/P Engineers, a major Engineering and Architectural firm located in Chicago, Illinois. Mr. Fagan has over 23 years experience in the construction industry, and has worked on hundreds of large scale projects throughout the country and throughout the world. He is a contributor to ASPE Technical Manuals and several magazines, having articles published in *Plumbing Engineer*, *PM Engineer* and *HPAC*, and he is the Technical Editor of the ASPE Bi-Monthly Magazine, *Plumbing Systems and Design*. Mr. Fagan is also a past President of the ASPE Chicago Chapter, is on the Board of Directors of the ASPE Research Foundation, and has taught the ASPE Chicago Chapter Plumbing Engineering Basics Class for the past ten years. He is a graduate of Brown University, and is a Registered Professional Engineer, Certified in Plumbing Design by ASPE, and a LEED Accredited Professional.

Joe Ficek, CPD is an Associate at Grumman/Butkus Associates, a consulting engineering firm in Evanston, Illinois. Mr. Ficek has over 25 years of experience in the plumbing industry and has worked on numerous projects throughout the country. Mr. Ficek was a committee member for the the 2002 City of Chicago Plumbing Code rewrite, is a contributor to the ASPE Plumbing Engineering Design Handbooks and has published articles in *HPAC* and *Plumbing Engineer* magazines. Mr Ficek is a past President of the ASPE Chicago Chapter, is the ASPE Society CPD Certification Committee Chairman, and has assisted in the teaching of the ASPE Chapter Plumbing Engineering Basics Class for the last 2 years.

<p>I. Week 1 (October 6)</p> <p>A. Introduction</p> <ol style="list-style-type: none"> 1. Course Format=Design Process 2. Building Examples <ol style="list-style-type: none"> a. High Rise Office b. Hospital c. School with Cafeteria <p>B. Information Gathering</p> <ol style="list-style-type: none"> 1. Project Scope 2. Plumbing Codes 3. Fixture and Equipment Requirements <ol style="list-style-type: none"> a. Code Required Fixtures b. Owners Fixtures and Equipment c. Kitchen and Laundry Equipment <p>II. Week 2 (October 13)</p> <p>A. Site Utilities</p> <ol style="list-style-type: none"> 1. Preliminary Service Sizes <ol style="list-style-type: none"> a. Water b. Sanitary Sewer c. Storm Sewer 2. Determination of Available Utilities 3. Daily Water/Sewage Loads 4. On Site Utilities <ol style="list-style-type: none"> a. Leech Fields and Septic Tanks b. Storm Water Retention c. Wells <p>III. Week 3 (October 20)</p> <p>A. Water Quality and Water Treatment</p> <ol style="list-style-type: none"> 1. Water Quality Analysis 2. Types of Purified Water 3. Water Softeners 4. Water Filters 5. RO Systems 6. DI Systems <p>IV. Week 4 (October 27)</p> <p>A. Preliminary Equipment Sizing and Space Requirements</p> <ol style="list-style-type: none"> 1. Equipment Types 2. Pump Rooms 3. Boiler Rooms <p>B. Fixture Selection</p> <ol style="list-style-type: none"> 1. Types of Fixtures 2. Safety Fixtures 3. Hospital Fixtures 4. Minimum Code Requirements 5. Chase Requirements 	<p>V. Week 5 (November 3)</p> <p>A. Roof Drains</p> <ol style="list-style-type: none"> 1. Roof Slopes and Drain Location 2. Drain Types and Features <p>B. Floor Drains</p> <ol style="list-style-type: none"> 1. Locations 2. Types and Features <p>C. Kitchen Waste and Grease Traps</p> <p>VI. Week 6 (November 10)</p> <p>A. Sub Soil Drainage</p> <p>B. Sump Pumps and Sewage Ejectors</p> <p>C. Special Wastes</p> <ol style="list-style-type: none"> 1. Acid Waste and Neutralization Basins 2. Oil Water Separators <p>VII. Week 7 (November 17)</p> <p>A. Cold Water Load Estimation</p> <p>B. Domestic Booster Pumps</p> <p>C. Fire Sprinkler Demands</p> <p>VIII. Week 8 (November 24)</p> <p>A. Hot Water Load Estimation</p> <p>B. Domestic Water Heating Manual</p> <p>C. Water Heater Types and Selection</p> <p>IX. Week 9 (December 1)</p> <p>A. Systems Layout</p> <ol style="list-style-type: none"> 1. Domestic Water Distribution <ol style="list-style-type: none"> a. Types of Systems b. PRV's and Other High Rise Considerations c. Water Heater Location and Hot Water Recirculation d. Backflow Prevention 2. Drainage and Vent Systems <ol style="list-style-type: none"> a. Stacks b. Building Drains c. Vents Through Roof d. Wet Columns <p>X. Week 10 (December 8)</p> <p>A. Coordination with Structure</p> <p>B. LEED</p> <p>C. Specifications</p> <p>D. Riser Diagrams</p>
---	---

COURSE FEE:

ASPE member \$650.00 _____

Non-member*\$825.00 _____

* INCLUDES A ONE YEAR ASPE MEMBERSHIP
DUES PAID BY CHICAGO CHAPTER

ASPE Membership Number _____

Make checks payable to: ASPE - Chicago Chapter

Send Registration Form and check to:

ASPE Education Committee
1918 North Larrabee St.
Chicago, IL 60614

Registration Deadline September 18, 2009

COURSE REGISTRATION:

Name: _____

Company: _____

Address: _____

City: _____ St: _____ Zip: _____

Phone: _____ Fax: _____

Address (Home): _____

City: _____ St: _____ Zip: _____

Phone: _____ Email: _____