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## Current Course List *hyperlinked*

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Analysis of Changes 2008 NEC<sup>®</sup> – available in 6, 8, 12 and 16 hour training sessions

Grounding and Bonding 2008 NEC<sup>®</sup> – available in 6, 8, 12 and 16 hour training sessions

Dwelling Electrical Service and Feeder Calculations 2008 NEC<sup>®</sup> – 6 hours

NEC<sup>®</sup> Electrical Calculations 2008 NEC<sup>®</sup> – 6 hours

Motors, Conductors and Protection 2008 NEC<sup>®</sup> – 6 hours

Hazardous Classified Locations 2008 NEC<sup>®</sup> – 6 hours

Grounding and Bonding Separately Derived Systems and More Than One Building or Structure 2008 NEC<sup>®</sup> – 6 hours

Grounding and Bonding Information Technology Equipment 2008 NEC<sup>®</sup> – 6 hours

Analysis of Changes 2005 NEC<sup>®</sup> – available in 6, 8, 12 and 16 hour training sessions

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Hazardous Classified Locations 2005 NEC<sup>®</sup> – 6 hours

Swimming Pools, Spas, Hot Tubs and Hydromassage Bathtubs 2005 NEC<sup>®</sup> – 6 hours

Motors and Air Conditioning Equipment 2005 NEC<sup>®</sup> – 6 hours

Grounding and Bonding Separately Derived Systems and More Than One Building or Structure 2005 NEC<sup>®</sup> – 6 hours

Grounding and Bonding Information Technology Equipment 2005 NEC<sup>®</sup> – 6 hours

Preparing for Dwelling Electrical Inspections 2005 NEC<sup>®</sup> – 6 hours

*This list of courses represents training most often requested and utilized for public and private training. Additional training topics are constantly in development and other topics are available on request.*

## **Analysis of Code Changes, 2008 NEC®**

This overview and analysis provides a jumpstart into the more significant changes that impact all electrical work. Over 3,600 proposals and 2,300 public comments, processed by twenty code making panels, have shaped the 2008 NEC® into a code unlike its predecessor. While all of the changes cannot be covered in a single training day, this course is intended to provide detail into the more significant changes adopted into the 2008 National Electrical Code NEC®. Specific changes can be addressed which impact a particular state, region, or jurisdiction. The accompanying coursework, "Analysis of Changes, 2008 NEC®", published by the International Association of Electrical Inspectors® (IAEI®) provides attendees with "up-close-and-personal" insight and detailed reference into approximately 400 of the more crucial changes to this latest version of the NEC®. While NEC® codebooks may be helpful and always recommended, this course is designed to provide all the necessary information to explain and understand the latest changes without additional materials. The PowerPoint presentation and the coursework provided for this training will ensure maximum exposure to the more significant changes and allow for attendees to reference all of the significant changes (with accurate and authoritative interpretations) easily after the seminar via the detailed coursework published by IAEI®. This course is especially suited for contractors, tradesmen, design professionals and code officials with a "need-to-know" regarding the latest version of the NEC®. Those attendees will be able to recognize and analyze the changes that impact both new and existing electrical installations. Participants may find highlighters and sticky notes useful during this course.

*This training is available in 6, 8, 12 and 16 hour training sessions, and can be customized to include changes significant to a particular audience.*

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## **Grounding and Bonding, 2008 NEC®**

This introduction and overview on grounding and bonding provides insight into the most misunderstood region of the National Electrical Code®. The accompanying coursework, "Soares Book on Grounding and Bonding 10<sup>th</sup> Edition", published by the International Association of Electrical Inspectors® (IAEI®) provides attendees with up-close-and-personal instruction into the mystery surrounding the grounding and bonding of electrical systems. Changes to Article 250, completed within this code cycle, have been incorporated into the training. While all of the material cannot be covered in a single training day, this course will provide excellent detail into the more relevant, most-frequently used applications surrounding the grounding and bonding requirements. Specific grounding and bonding issues that impact a particular state, region or jurisdiction can be addressed. NEC® codebooks may be helpful and always recommended, but this course is designed to provide all the necessary information to explain and comprehend Article 250 and related articles of the NEC® without additional materials. The PowerPoint presentation and the provided coursework (both developed and published by the IAEI®) will ensure maximum exposure to the material covered and provide attendees future reference after the seminar via the detailed coursework published by IAEI®. This course is especially suited for contractors, tradesmen, design professionals, code officials and anyone who still has questions about the grounding and bonding of electrical systems. Attendees will have maximum exposure to the most authoritative information available on the most mysterious portions of the National Electrical Code®.

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## **Dwelling Electrical Service and Feeder Calculations, 2008 NEC<sup>®</sup>**

Dwelling Electrical Service and Feeder Calculations is an in-depth six-hour course designed to provide attendees the knowledge and tools necessary to perform the calculations for residential electrical services and feeders. This class follows a step-by-step process for determining the minimum electrical service and feeder requirements based upon both General and Optional methods of calculation depicted in the 2008 NEC<sup>®</sup>. While NEC<sup>®</sup> codebooks (always recommended) and calculators may be helpful, this course is designed to provide all the necessary information and coursework to explain, comprehend, and complete the calculations without additional materials. This in-depth course is especially suited for design professionals, code officials, as well as master and journeyman electricians. The coursework provides complete detailed descriptions of the code sections leading to the calculation process and has proven to be a valuable reference for future calculations or review.

*This training is available in 4 and 6 hour training sessions, but is best covered in the 6 hour session.*

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## **NEC<sup>®</sup> Electrical Calculations, 2008 NEC<sup>®</sup>**

NEC<sup>®</sup> Calculations is an in-depth six-hour course detailing some of the specific calculation requirements found in electrical construction and based upon the requirements of the 2008 NEC<sup>®</sup>. This course follows step-by-step methods for determining box fill, conductor de-rating & ampacity, conduit fill, and voltage drop. Understanding & implementing Table 310.16 and conductor de-rating for determining compliant conductor ampacity is explained in depth. While NEC<sup>®</sup> codebooks (always recommended) and calculators may be helpful, this course is designed to provide all the necessary information and coursework to explain, comprehend and complete the calculations without additional materials. The coursework, published by C&M Enterprises, contains additional calculation procedures for auxiliary gutter and wireway sizing requirements and short-circuit calculations for determining proper equipment ratings for minimum compliance. This course is especially suited for master and journeyman electricians, design professionals and others with a need-to-know regarding some the basic calculation processes required for NEC<sup>®</sup> compliance. The coursework provides complete detailed description of the various calculations and has proven to be valuable reference for future calculations or review.

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## **Motors, Conductors and Protection, 2008 NEC<sup>®</sup>**

This in-depth six-hour course provides specific user information for the general application of motors, motor conductors and motor protection. Specific sizing and protection requirements of various motor circuit componentry, which is found in the typical motor circuit, is outlined in a detailed step process revealing both the calculation requirements and governing code sections related to motor circuit componentry sizing and based upon the requirements of the 2008 NEC<sup>®</sup>. While NEC<sup>®</sup> codebooks (always recommended) and calculators may be helpful, this course is designed to provide all the necessary information and coursework to explain, comprehend and complete the motor circuit componentry selection process without additional materials. The coursework, published by C&M Enterprises, contains additional calculation procedures necessary for general commercial and industrial construction. This course is especially suited for master and journeyman electricians, design professionals and others with a need-to-know regarding some the basic motor circuit selection and calculation processes required for NEC<sup>®</sup> compliance.

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## **Hazardous Classified Locations, 2008 NEC®**

This course is a six-hour introduction and overview of the 2008 NEC® requirements of Articles 500 through 516 and hazardous classified locations, with particular emphasis on motor fuel dispensing facilities. This course will provide introductory understanding of the NEC® requirements as they pertain to classified locations. The supplied coursework, 'Hazardous Locations, 2E, 2008 NEC® ', published by the International Association of Electrical Inspectors® (IAEI®) will provide a broad and in-depth study of hazardous locations and specific NEC® requirements for the attendees. This course is well suited for all participants interested in gaining insight and understanding to the hazards and requirements of classified locations and their specific requirements governed under the 2008 NEC®.

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## **Grounding and Bonding Separately Derived Systems and More Than One Building or Structure, 2008 NEC®**

The grounding and bonding requirements for separately derived systems and more than one building or structure, are detailed within this six-hour introduction to grounding and bonding. This course begins at the beginning with an introduction and overview of the basic grounding and bonding requirements of the NEC®, and then proceeds into the specific requirements necessary to achieve compliance for both separately derived systems and separate buildings or structures. The PowerPoint presentation and the coursework provided will ensure maximum exposure to the material covered and provide attendees future reference after the seminar via the detailed coursework published by IAEI®, "Soares 10E book on Grounding and Bonding".

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## **Grounding and Bonding Information Technology Equipment, 2008 NEC®**

Article 645 of the 2008 NEC® governs equipment, power-supply wiring, equipment interconnection wiring, and grounding of information technology equipment and systems, in an information technology (IT) equipment room. This six-hour introduction and overview will provide introduction and additional insight into grounding, bonding, equipment installation and power wiring of this specialized and unfamiliar area of the NEC®. With material developed by the International Association of Electrical Inspectors® (IAEI®), both depth and clarity of subject matter can be assured. This course begins with the basic necessities and understanding of grounding and bonding before getting technical and specific with IT and is well suited for attendees with limited IT subject knowledge. The PowerPoint presentation and the coursework provided will ensure maximum exposure to the material covered and provide attendees future reference after the seminar via the detailed coursework published by IAEI®, "Soares 10E book on Grounding and Bonding".

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## **NEC® Electrical Calculations, 2005 NEC®**

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## **Swimming Pools, Spas, Hot Tubs and Hydromassage Bathtubs, 2005 NEC®**

This six-hour training provides overview of the 2005 NEC® requirements of Article 680, and related Articles as they pertain to swimming pools, spas, hot tubs & hydromassage bathtubs. Additional emphasis is placed on the requirements of grounding and bonding of these specific installations. Due to the emphasis on grounding and bonding, this course is well suited for non-electrical pool contractors and installers as well as electrical designers, contractors and craftsmen. The PowerPoint instruction, produced and developed by the International Association of Electrical Inspectors® (IAEI®), provides excellent detailed graphics depicting relevant installation requirements, and follows the 2005 NEC®, which is the course material for this training.

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## **Motors and Air Conditioning Equipment, 2005 NEC®**

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This six-hour course deals with the specifics of equipment selection, equipment protection, power and control wiring, and grounding and bonding of motors and air-conditioning equipment as governed under the 2005 NEC®. This course is well suited for designers, specifiers and installers who need introduction or expanded knowledge in the area of Articles 430, 440 and related NEC® Articles as they pertain to motor and similar equipment requirements. The PowerPoint instruction, produced and developed by the International Association of Electrical Inspectors® (IAEI®), provides excellent detailed graphical representation of relevant Code requirements, and follows the 2005 NEC®, which is the course material for this training.

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## **Grounding and Bonding Separately Derived Systems and More Than One Building or Structure, 2005 NEC®**

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*This training is available in 4 and 6 hour training sessions, but is best covered in the 6 hour session.*

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### **Preparing for Dwelling Electrical Inspections, 2005 NEC<sup>®</sup>**

This is a six-hour overview of the electrical requirements for one- and two-family dwellings as depicted in the 2005 NEC<sup>®</sup>. This course is directed toward contractors, tradesmen and craft and follows a "room-by-room walk-through tour" of a typical one-family dwelling revealing applicable NEC<sup>®</sup> code requirements for the rough-in, final, and service installation phases of the construction and inspection process. Class work is extensive and detailed to follow a room-by-room tour covering box fill, branch circuit, outlet, GFCI and AFCI requirements, as well as other applicable code compliance issues. Grounding, bonding, and overcurrent protection-wire size coordination is covered in the service section of this course. The coursework, IAEI's 6<sup>th</sup> edition book "One & Two Family Dwelling Electrical Systems", published by the International Association of Electrical Inspectors<sup>®</sup>, is well suited for all participants interested in the electrical requirements for one & two family dwellings subject to the regulations of the 2005 National Electrical Code<sup>®</sup>.

*This training is available in 4 and 6 hour training sessions, but is best covered in the 6 hour session.*

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