

The logo features a dark grey rounded square on the left containing the word "CEDIA" in white. To its right, the word "EXPO" is written in a large, bold, black, sans-serif font with a slight 3D effect.

SEPTEMBER 22-26, 2010 ATLANTA, GA



Pages 2 - 10



Pages 20 - 39



Pages 44 - 56



Pages 11 - 19



Pages 40 - 43



Pages 56 - 57



Core Curriculum

ESB111 Introduction to Human Resources

Catalog #: ESB111-8, Wednesday: 9:00 AM - 10:30 AM

CEU Value: 1.5

Instructor: Gigi Dryer, Sonance – CCI

Location: B309

The purpose of this course is to examine the basic concept of human resources (HR) and the management of an organization's most valued assets: the people hired to contribute to the achievement of the business. It provides an overview of various HR functions involved in running an electronic systems contracting office and highlights the different techniques of managing a workforce. At the conclusion of this course, participants should be able to:

- List the basic functions of a typical HR department
- Describe basic techniques and the importance of the techniques used in employee recruitment, selection, and hiring policies
- Explain the importance of the employee handbook
- Describe the importance of training and how it can benefit the workflow and profitability of an office

ESB121 Introduction to Operational Management

Catalog #: ESB121-15, Wednesday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Paul Johnson, Custom Installation Services – CCI

Location: B313

The purpose of this course is to discuss the issues surrounding the everyday management of an electronic systems contracting business. Participants will be introduced to operational management topics such as organizational structure, management styles, and business processes that ensure efficient and effective business operations. At the conclusion of this course, participants should be able to:

- Describe the purpose of an organizational chart
- List and explain the business processes used in a successful electronic systems contracting business
- Identify different management styles
- List the resources that must be managed in an electronic systems contracting office
- Name the criteria used to determine project costs

ESB212 Effective Employee Recruitment and Selection

Catalog #: ESB212-10, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Gigi Dryer, Sonance – CCI

Location: B313

The purpose of this course is to describe techniques used to identify, differentiate, and hire employees. It examines behavior-based interviewing techniques that can be used to select employees by using past behavior to predict future performance. The course also provides tips on how to conduct an effective interview and to evaluate candidates based on specific job criteria. At the conclusion of this course, participants should be able to:

- Recruit qualified candidates suited for specific job needs
- Identify the skills needed for a particular job function
- Prepare interview questions
- Conduct an effective interview
- Evaluate employees based on specific job criteria

Recommended prerequisites: ESB111, ESB211

ESB213 Effective Compensation Strategies

Catalog #: ESB213-10, Thursday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Steve Firszt, Fast-Forward Business Coaching – CCI

Location: B313

The purpose of this course is to examine the strategies that are used to recruit and retain the most qualified employees. Participants will be able to analyze their market areas to determine appropriate compensation and benefits for their employees, as well as consider alternate forms of compensation to select a compensation strategy that fits within their budget in recruiting the most qualified candidates. At the conclusion of this course, participants should be able to:

- Assess their market area to determine appropriate employee compensation and benefits
- Describe various types of employee compensation
- Discuss a compensation strategy that is appealing to prospective candidates and within a budget
- Describe various employee benefit options

Recommended prerequisites: ESB111, ESB211

ESB221 Transitioning Into a Management Role

Catalog #: ESB221-13, Thursday: 10:00 AM - 1:00 PM

CEU Value: 3

Instructor: Jared Blackford, Digital Innovations, Inc. – CCI

Location: B305

The purpose of this course is to explore the career transition to a manager. The course discusses key management techniques to become an effective manager. Participants will outline a personal action plan that they can use. At the conclusion of this course, participants should be able to:

- Describe the manager's role
- List the characteristics of an effective manager
- Identify techniques for motivating people
- Use key management techniques to effectively manage people
- Outline a personal action plan that will help manage people

*Formerly known as ESB221: From Technician to Manager

ESB222 Developing Business Operating Systems

Catalog #: ESB222-9, Thursday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Marilyn Sanford, La Scala Integrated Media – CCI

Location: B305

The purpose of this course is to explore the processes and procedures involved in defining a business operating system. It provides a guide to developing an effective organizational structure, creating an organizational chart, determining an effective reporting structure, and creating business processes and procedures. Documentation of these processes and procedures, as well as the forms used for each process, are discussed. At the conclusion of this course, participants should be able to:

- Define an organizational chart and reporting structure
- Identify forms that are used in various business processes
- Define and document business processes and flowcharts
- Discuss supporting business procedures

Recommended prerequisite: ESB121

ESB224 Back Office Management

Catalog #: ESB224-8, Friday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Michael Bradley, Safeguard Security and Communications – CCI

Location: B303

The purpose of this course is to explore techniques for managing the home office and day-to-day operations of a business. This includes the effective management of resources and facilities in order to maximize efficiency. Participants will get hands-on experience in contract development in both the legal and administrative areas. At the conclusion of this course, participants should be able to:

- Identify techniques for effective resources management
- Identify techniques for effective facilities management
- Describe the key activities that take place during contract development
- Identify legal issues that need to be addressed during contract development
- Develop an effective contract

Recommended prerequisites: ESB121

ESB225 The Business Side of Project Management

Catalog #: ESB225-11, Wednesday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Ron Callis, Firefly Design Group – CCI

Location: B309

The purpose of this course is to guide participants in the business tracking metrics involved in project management. This course provides techniques for managing and maintaining project schedules, which is the key to reducing cost on any project. This course also discusses effective management of a project, including accurate estimation of project costs and managing labor, as well as techniques for assuring product quality throughout all phases of the project. At the conclusion of this course, participants should be able to:

- Estimate accurate project costs
- Examine effective scheduling for multiple projects
- Manage labor to reduce project costs in an effective manner
- Assure product quality throughout all stages of a project
- Balance workflow among projects to maximize profits

Recommended prerequisite: ESB121

ESB226 Inventory and Purchasing

Catalog #: ESB226-9, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Michael Bradley, Safeguard Security and Communications – CCI

Location: B312

The purpose of this course is to explore the effective methods for controlling and managing the inventory purchasing processes. Participants will gain tips on how to select and manage vendors and subcontractors, as well as other outsourced resources. At the conclusion of this course, participants should be able to:

- List techniques for managing and controlling inventory
- Describe effective methods for managing the purchasing process
- Select and manage appropriate vendors

Recommended prerequisites: ESB121, ESB221

*Formerly known as ESB226: Managing External Resources

ESB231 Business Metrics

Catalog #: ESB231-9, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Marilyn Sanford, La Scala Integrated Media – CCI

Location: B309

The purpose of this course is to teach participants how to drive their business results by developing and using the appropriate business performance metrics. Participants will find these metrics essential to shaping the behaviors of individuals at all levels of their company in order to achieve outstanding business results. Benchmarking metrics, business dashboard tools, and return on investment (ROI) are key topics presented in this course. Anyone interested in improving a company's financial and operational performance should attend this course. At the conclusion of this course, participants should be able to:

- Describe how performance and the measurement of performance are related
- Use key strategies to measure business performance
- Develop an executive dashboard
- Calculate ROI and alternative strategies

Recommended prerequisite: ESB131

ESB232 Business Leadership

Catalog #: ESB232-10, Thursday: 10:00 AM - 1:00 PM

CEU Value: 3

Instructor: Ray Lepper, Home Media Stores, L.C. – CCI

Location: B315

The purpose of this course is to address the importance of establishing a positive business culture. Key questions such as "How do you develop a business culture?" or "How does your business culture affect the bottom line of your business?" are addressed. In addition to forming a business culture, this course discusses strategies for leading people and forming a board of directors. At the conclusion of this course, participants

should be able to:

- Describe the culture represented in the company
- List key factors in developing a business culture
- Describe effective strategies for leading people
- Discuss tips for forming a board of directors

Recommended prerequisites: ESB131, ESB231

ESB233 Introduction to a Business Plan

Catalog #: ESB233-4, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Location: B306

The purpose of this course is to provide participants hands-on experience in developing a business plan. It reviews the typical components of a business plan including a mission statement, objectives, strategies, and tactics. Participants will work with a template for completing a business plan that allows them to succeed in the electronic systems contracting industry. At the conclusion of this course, participants should be able to:

- Explain the elements of the business plan
- Create measurable goals for their business
- Consider exit strategies for their company
- Describe what goes into each element of a business plan and why they are important to the success of the business

Recommended prerequisite: ESB131

ESB301 Cash Flow Strategies

Catalog #: ESB301-10, Saturday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Jocelyn Stover – CCI

Location: B305

The purpose of this course is to analyze the steps to develop a profitable business strategy as well as ways to improve sources of cash (income), manage uses of cash (receivables, inventory, expenses), and use debt as a form of financing. Participants will work through exercises to study the best practices that help them gain better control of their finances through planning, monitoring, and forecasting cash flows.

At the conclusion of this course, participants should be able to:

- Determine the importance of managing cash flows and how it directly affects the bottom line
- Create a system to monitor and forecast cash flows
- Develop a procedure for managing receivables from clients
- Develop a procedure for managing payments to vendors

Recommended prerequisites: ESB101, ESB201, ESB202

ESB302 Strategic Finance

Catalog #: ESB302-4, Saturday: 10:00 AM - 1:00 PM

CEU Value: 3

Instructor: Ray Lepper, Home Media Stores, L.C. – CCI

Location: B306

The purpose of this course is to examine the strategies for analyzing the financials for electronic systems contractor businesses. It focuses on auditing balance sheets and analyzing key indicators to determine the health and profitability of a business. Topics include strategic management techniques to manage and forecast growth. At the conclusion of this course, participants should be able to:

- Perform a balance sheet audit
- Analyze key indicators to perform a financial analysis of a business
- Use a trended income statement to improve strategic management
- Evaluate overall company profitability as well as job specific profitability

Recommended prerequisites: ESB101, ESB201, ESB202, ESB203, ESB204

ESB311 Effective Employee Orientation

Catalog #: ESB311-7, Saturday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Eric Pikcilingis, Choate Systems Installation – CCI

Location: B306

The purpose of this course is to develop sound business practices in properly orienting new hires or internal promotions into new roles within a company. It explains how to accelerate new hires' orientation into their new role as quickly as possible to realize a return on your investment and safeguard the longterm success of new or promoted employees. Other topics include employee review and feedback processes, strategy procedures that direct the new hire in development, and a recognition/reward process to accelerate long-term career development. At the conclusion of this course, participants should be able to:

- Establish a company-wide process for orientating new hires or in-house promotions over the first 90 days
- Accelerate the orientation process to receive maximum return on investment
- Establish company-wide employee review and employee feedback processes
- Develop effective meetings and strategy sessions to direct the new hire in development
- Establish a company-wide recognition and reward policy to accelerate long-term performance commitments

Recommended prerequisites: ESB111, ESB211, ESB212

*Formerly known as ESB311: Effective Employee Development

ESB312 The Employee Handbook

Catalog #: ESB312-3, Thursday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Gigi Dryer, Sonance – CCI

Location: B309

The purpose of this course is for participants to learn how to determine what to include in their employee handbook based on their company policies. This course will suggest resources for obtaining employee handbook content and discuss how to create a process for updating and editing content. During this course, participants will look at good and bad examples of employee handbook content so that they can determine

how to effectively design employee handbooks for their company. At the conclusion of this course participants should be able to:

- Identify resources from which to obtain content for the employee handbook
- Determine the basic content of an employee handbook
- Identify good and bad examples of employee handbook content
- Create a process to review, add, remove, and change content for the employee handbook

Recommended prerequisites: ESB111, ESB211

ESB321 Refining Your Management Skills

Catalog #: ESB321-6, Wednesday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Michael Bradley, Safeguard Security and Communications – CCI

Location: B306

The purpose of this course is to help managers examine and evaluate their skills for managing people. Participants will assess their own personality and gain tools to examine the personalities of those they manage. Honing these skills will aid managers in helping their employees reach their full potential. This course will discuss having the right people in the right positions of the company structure. At the conclusion of this course, participants should be able to:

- Identify what personality qualities they possess for managing employees
- Identify personality qualities of employees
- Discuss how to interact with different personality types
- Evaluate employees to ensure they are in the right position
- Discuss motivation and the use of motivation techniques

Recommended prerequisites: ESB121, ESB221

*Formerly known as ESB223: Managing People

ESB322 Building a Process Map

Catalog #: ESB322-3, Friday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Michael Creeden, Digital Innovations, Inc. – CCI

Location: B305

The purpose of this course is to show participants how to document a process by using a process map. In addition, participants will learn how to implement and monitor their process with this living breathing document. Participants will review good and bad examples of process maps as well as the pitfalls of developing a process map. At the conclusion of this course participants should be able to:

- Define, implement, and monitor a business process by using a process map
- Identify the process needs of their company
- Use tools for creating a process map
- Explain the scope of the process flow from start to finish
- Identify examples of both good and bad process maps

Recommended prerequisites: ESB121, ESB222

ESB331 Developing Marketing Strategies

Catalog #: ESB331-9, Wednesday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Steve Firszt, Fast-Forward Business Coaching – CCI

Location: B304

The purpose of this course is to provide business owners with essential tools to differentiate and grow their firms in an increasingly competitive environment. It will provide a guide for developing a marketing plan and its core components, and assessing decision points for business owners. At the conclusion of this course, participants should be able to:

- Explain how a marketing plan can help their business grow
- Perform an effective SWOT analysis (Strength, Weakness, Opportunities, Threats)
- Brand their company
- Recognize the best opportunities in the marketplace for sales and competitive advantage
- Develop a marketing plan for their company

Recommended prerequisite: ESB131

ESB332 Developing Sales Strategies

Catalog #: ESB332-11, Friday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Bob Gassel, Gassel Group, LLC – CCI

Location: B306

The purpose of this course is to provide small business owners with techniques for creating sales strategies and developing effective pricing strategies that are essential to running an electronic system contracting business. At the conclusion of the course, participants should be able to:

- Develop an effective sales strategy
- Develop an effective pricing strategy
- Describe how point of entry affects sales strategy

Recommended prerequisites: ESB131, ESB231, ESB331

ESB411 Effective Employee Conflict Management

Catalog #: ESB411-7, Friday: 8:00 AM - 11:00 AM

CEU Value: 3

Instructor: Doug Weinstein, Certified Cyber Solutions – CCI

Location: B407

The purpose of this course is to provide managers a guide to identify the source of employee conflicts and the techniques to resolve them effectively. Topics include interactions with others in the workplace, successful working strategies for different interaction styles, and conflict management techniques. At the conclusion of this course, participants should be able to:

- Accept conflict as an inevitable part of all work situations and manage it effectively to maintain individual and team focus and productivity
- Recognize the positive and negative impact of conflict and leverage it to everyone's advantage
- List the 11 root causes of interpersonal conflict
- Establish a cooperative atmosphere to resolve conflict when it occurs
- Develop a personal action plan for improving their conflict management skills

Recommended prerequisites: ESB111, ESB211, ESB311

*Formerly known as ESB411: Effective Conflict Management



Electives

ESB061 The Business Operations Makeover: Best Practices for the ESC Workshop

Catalog #: ESB061-9, Thursday: 9:00 AM - 5:00 PM

CEU Value: 3.5

Instructor: Sam Cavitt, Media Environment Design, Inc. - CCI & Leslie Shiner, The ShinerGroup – CCI

Location: B306

Businesses don't plan to fail but many do fail to plan. The result could be the same. Fortunately, the electronic systems contracting industry has grown and a wealth of knowledge and experience is available. This full-day workshop is designed to provide practical and established methods for business owners and managers to apply immediately to their own business. Project management, resource management, financial management, and profitability are tied together. Company profits are based on the ability to deliver completed projects with limited resources within a given budget and time frame. However, even with good financial management, participants may not know how much it costs to produce the job or how much it costs to run their company. A clearly defined plan of action and operations management road map will enable companies to do the right job at the right price and realize all the profits necessary to continue in today's business economy.

Learning Objectives:

- Define the problem and create a solution by studying best practices of successful companies
- Create a company-specific process map
- Measure follow-through from sales to production to accounting
- Identify company resources and capacity
- Improve inter-departmental communication methodology
- Integrate real world metrics to improve today's business and create goals for future production

This seminar is for anyone who sees the need to develop better systems for every aspect of their company. Owners and managers who want to improve their processes (from sales to production) will benefit from this workshop and come away with immediately applicable techniques and tools.

Instructor websites: www.medesign.tv and www.ShinerGroup.com

ESB078 Building a Workforce - Employee Development

Catalog #: ESB078-3, Saturday: 8:00 AM - 9:30 AM

CEU Value: 0.75

Instructor: Doug Weinstein, Certified Cyber Solutions – CCI

Location: B302

Developed for the 2010 CEDIA Management Conference, this comprehensive 90-minute seminar focuses a lens on the most important asset your company has: your human capital. Having the right people increases the value of a business. This seminar provides insight on finding and retaining the right people, how to keep them doing the right work, and how to develop them into valuable professionals by providing the right leadership, guidance, and incentives.

ESB094 Benchmarking Survey Results Review and Forum

Catalog #: ESB094-2, Wednesday: 2:00 PM - 5:00 PM

Catalog #: ESB094-1, Friday: 2:00 PM - 5:00 PM

CEU Value: 1.5

Location: B407

The purpose of this session is to discuss the value of benchmarking for participants' companies and the industry, as well as review the findings of the 2010 CEDIA Benchmarking Survey. Participants will leave this review with an understanding of how to apply the information from the survey to their company in order to improve performance and operations. This review is for participants of the 2010 Benchmarking Survey only.

ESB095 A Simple Guide to Turning a Profit as an Electronic Systems Contractor Workshop

Catalog #: ESB095-1, Wednesday: 9:00 AM - 5:00 PM

CEU Value: 3.5

Instructor: Leslie Shiner, The ShinerGroup – CCI

Location: B312

This session will help participants acquire the tools to turn a profit in their business. Participants will learn how to understand their numbers, adopt new systems, and create a repeatable process for profit, all in a simple and easy to understand approach. This is the session that answers the question: "What am I doing wrong and what's stopping me from making the money that I deserve?"

Topics include:

- Pricing jobs correctly to cover all costs and obtain a target profit
- Understanding the true cost of labor for better pricing and labor management
- Creating a breakeven analysis to answer the "what if" questions
- Getting accurate and timely job cost reports to manage jobs from start to finish
- Producing meaningful financial statements that can be used to help make good financial decisions

ESB098 Business Survivability Panel

Catalog #: ESB098-5, Saturday: 10:00 AM - 12:30 PM

CEU Value: 1

Instructor: Leslie Shiner, The ShinerGroup – CCI

Location: B303

Back for its third year, the CEDIA initiative that assists ESC companies with sustaining and growing business despite a challenging market, the Survival of the Fittest webinar series offers a complimentary forum event at EXPO 2010 in Atlanta. This live forum will provide participants with specific actions that different ESC's have taken to improve their businesses this year. Learn from several panel members, including an experienced ESC, a new business owner, a manufacturer and others. Join us for this lively discussion of ways to enhance the different aspects of your business and improve profitability.



Core Curriculum

ESCR111 Know Your Customers' Communication Styles

Catalog #: ESCR111-13, Thursday: 9:00 AM - 10:30 AM

CEU Value: 1.5

Instructor: Patrick Hartman, NuSystems, Inc. – CCI

Location: B404

The purpose of this course is to help participants learn the differences in communication styles among various personality types. Participants will find ways to quickly spot a customer's style and adjust the sales approach to fit their needs. At the conclusion of this course, participants should be able to:

- Identify key customer communication styles and their relevance to selling
- Identify the buying characteristics associated with different communication styles
- Identify "cues" that indicate a particular style and adapt selling techniques to address the style
- Identify "style" factors that influence the buyer's decision

ESCR112 Overview of the Selling Process

Catalog #: ESCR112-10, Wednesday: 9:00 AM - 10:30 AM

CEU Value: 1.5

Instructor: Ron Callis, Firefly Design Group – CCI

Location: B404

The purpose of this course is to have participants discover a basic three-step sales process that will lead them and their team to success. They will also learn effective sales statements to add to sales presentations, and spend time evaluating which sales approach will work best with their company's sales culture. At the conclusion of this course, participants should be able to:

- Identify and describe the three steps in the sales process
- Describe the characteristics and benefits of using consultative selling techniques
- Explain the importance of a consistent selling process and identify industry examples of different selling approaches
- Identify their organization's sales style or culture and determine if it is the best choice for the organization

ESCR121 Marketing 101: The Fundamentals of Marketing and Branding

Catalog #: ESCR121-11, Wednesday: 11:00 AM - 12:30 PM

CEU Value: 1.5

Instructor: Mark Hovey, Colorado Dream Theater – CCI

Location: B314

The purpose of this course is to teach participants what marketing is, what it does, and how to develop a strong brand foundation for their marketing process. At the conclusion of this course, participants should be able to:

- Define marketing and identify its many activities
- Recognize and align key components of their brand and brand promise
- Identify the strategic elements of marketing
- Develop targeted activities consistent with their brand promise

ESCR132 Working with the Architectural Community

Catalog #: ESCR132-7, Wednesday: 10:00 AM - 11:30 AM

CEU Value: 1.5

Instructor: David Vranicar, Trinity Technology – CCI

Location: B406

The purpose of this course is to teach participants the ins and outs of creating partnerships with architects, and how those partnerships can benefit a business. In today's design-oriented climate, effective communication with architects is a critical skill for all integrators. The ability to tactfully exchange ideas and address concerns during the design phase often determines the success of the relationship and the ultimate satisfaction of the client. Participants will learn how to function within the close-knit architect/client relationship, build an enduring bridge of trust, and position themselves as a respected consultant. At the conclusion of this course, participants should be able to:

- Describe the accountabilities and relationship the architect has with the client and fellow trades on a custom project
- Understand how to present their company to an architectural firm and identify the tools and strategies needed to create a new business relationship
- Identify the channels of authority and lines of communication while working as a collaborative team
- Recognize relationship pitfalls and identify ways to correct them

ESCR133 Working with the Interior Designer Community

Catalog #: ESCR133-3, Wednesday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: David Vranicar, Trinity Technology – CCI

Location: B404

The purpose of this course is for participants to learn the mistakes many A/V salespeople make when tapping into the interior design market, and learn how to effectively deal with these partners. Knowing how to use today's advanced A/V products and system design techniques to develop more qualified leads in the interior design community improves sales success. This course is designed to help participants sell advanced home theater and home automation systems while meeting the needs of the interior designer.

At the conclusion of this course, participants should be able to:

- Network with and maintain interior designer relationships
- Describe interior designers' goals and apprehensions
- Work effectively with interior designers throughout the duration of a project
- Specify the appropriate products to meet the performance goal (of the client) and the aesthetic goal (of the interior designer)

ESCR134 Working with the Builder Community

Catalog #: ESCR134-3, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: David Vranicar, Trinity Technology – CCI

Location: B308

The purpose of this course is for participants to understand the builder community and establish themselves as a core part of business. In this course, participants will learn how to target, approach, penetrate, and maintain custom, small volume, and production builders as profitable long-term customers.

At the conclusion of this course, participants should be able to:

- Describe the custom, small volume, and production builder market
- Formulate a plan of attack for working effectively with custom, small volume, and production builders
- Segment the custom, small volume, and production builder market
- Communicate effectively with custom, small volume, and production builders
- Form long-lasting and profitable relationships with custom, small volume, and production builders

ESCR201 Customer Service Best Practices

Catalog #: ESCR201-13, Saturday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Eric Bodley, Perfect Path by PPC – CCI

Location: B303

The purpose of this course is to teach how to cultivate open communication with customers. Participants will explore proactive ways to reach prospective customers, as well as learn ways to react to customer complaints and maintain or restore brand integrity. At the conclusion of this course, participants should be able to:

- Use effective communication skills such as questioning and listening, when talking to customers
- Define a way to successfully follow up with customers and explain the value of employing a structured approach for both their customers and organization
- Define their process for resolving customer issues
- Describe the importance of communicating their process for resolving customer issues throughout their organization
- Identify ways to maintain and restore brand integrity when a problem occurs

Recommended prerequisite: ESCR101

ESCR211 Formalizing Your Sales Process

Catalog #: ESCR211-11, Thursday: 2:00 PM - 3:30 PM

CEU Value: 1.5

Instructor: Richard Murphy, Quinn Murray Electric – CCI

Location: B407

The purpose of this course is to give participants tips to manage the sales process, and help them discover the pros and cons of various tools. Participants will learn better ways of documenting sales processes from the real experts. At the conclusion of this course, participants should be able to:

- Identify a formal, linear sales process
- Identify ways to manage the internal sales process
- Identify tools that can manage the sales process
- Identify ways to document sales systems and processes

Recommended prerequisite: ESCR112

ESCR212 Tools To Increase Referrals

Catalog #: ESCR212-5, Saturday: 2:00 PM - 3:30 PM

CEU Value: 1.5

Location: B407

The purpose of this course is to have participants learn how to increase referrals by choosing marketing and sales tools based on their needs and the needs of their potential customers. At the conclusion of this course, participants should be able to:

- Explain how to increase referral activities for their business
- Describe how market segmentation can influence which tools will best expand their reach
- Identify tools that can assist in marketing and referral activities within four categories: portfolio, advertising, public relations, and client relations
- Identify criteria to effectively prioritize the use of marketing and sales tools in their business

Recommended prerequisites: ESCR112, ESCR121

*Formerly known as ESCR212: Creating Tools to Increase Referrals

ESCR221 Targeting Appropriate Marketing Channels

Catalog #: ESCR221-9, Friday: 11:00 AM - 12:30 PM

CEU Value: 1.5

Instructor: Patrick Hartman, NuSystems, Inc. – CCI

Location: B405

The purpose of this course is to explore the marketing channels that will best reach specific target markets while learning the three keys to measuring marketing channel success. Participants will learn the best ways to maximize their budget. At the conclusion of this course, participants should be able to:

- Identify marketing channels that are appropriate for various target markets
- Describe the pros and cons of various marketing channels within the electronic systems industry
- Compare a variety of marketing techniques appropriate for different target markets
- Compare potential costs for different channels, techniques, and tools

Recommended prerequisite: ESCR121

ESCR231 Managing Successful Business Connections

Catalog #: ESCR231-13, Wednesday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Mark Hovey, Colorado Dream Theater – CCI

Location: B405

The purpose of this course is to teach participants how to identify potential business connections, evaluate the quality of potential connections, and take steps to form lasting business relationships by learning the ins and outs of creating connections. Participants will explore the wants and needs of interior designers, home builders, architects, other vendors, and subcontractors. Seeking how to communicate business capabilities to meet customer needs will become clear. At the conclusion of this course, participants should be able to:

- Identify various connection opportunities available to electronic systems contractors
- Evaluate the wants and needs of different types of business connections and how they fit with their business model
- Identify how to gather and provide needed information in order to initiate a business relationship
- Identify common mistakes when working with other businesses (including subcontractors and vendors) as well as strategies to avoid these pitfalls
- Manage expectations when working with different types of business connections
- Create a checklist for drafting written agreements with different types of businesses

ESCR241 Grow Your Business with Public Relations

Catalog #: ESCR241-9, Thursday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Patrick Hartman, NuSystems, Inc. – CCI

Location: B308

The purpose of this course is for participants to explore successful public relations strategies for growing their business. For most A/V integrators, there are endless PR opportunities that go unrealized, generally in the form of community outreach and involvement. Learn how to search for these hidden gems and turn effort into reward through the knowledge of PR. In this course, participants will gain a comprehensive understanding of PR, as well as learn how to find opportunities for PR within their busy schedules and create a smart and cost effective strategy based on targeted market channels. At the conclusion of this course, participants should be able to:

- Define PR and how it differs and collaborates with traditional marketing methods
- Identify how PR works specifically within the residential A/V industry
- Understand the structure of a PR strategy and be able to implement one for their company
- Increase the effectiveness of the PR presence through the involvement of targeted outreach opportunities
- Select events and efforts that will best support the overall PR strategy for the company

Recommended prerequisite: ESCR101

*Formerly known as ESCR241: Creating a PR Strategy for Your Business

ESCR301 Selecting a CRM System and Implementing it Into Your Business

Catalog #: ESCR301-9, Thursday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Dave Kirn, k2 Dealer Services, LLC

Location: B312

The purpose of this course is to help participants understand the importance of implementing a Customer Relationship Management (CRM) system. Participants will learn about features they need to look for when selecting a CRM system, as well as what is involved in getting the system functional. The course examines the different aspects of a CRM system including: marketing/lead generation, sales management, invoicing and accounting, project management, service management, and client follow-up. At the conclusion of this course, participants should be able to:

- Assess the features of a CRM system that are needed in their business
- Understand what is involved in implementing a CRM system and determine a timeline for complete implementation
- Examine their current processes and determine how to integrate them with a CRM system
- Identify how a CRM system helps grow business by attracting new clients and retaining existing ones

Recommended prerequisite: ESCR101

*Formerly known as ESCR301: Using CRM to Attract and Retain Customers

ESCR311 Creating Effective Sales Presentations

Catalog #: ESCR311-12, Saturday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Richard Murphy, Quinn Murray Electric – CCI

Location: B406b

The purpose of this course is for participants to see effective sales techniques demonstrated and have the opportunity to practice and evaluate their sales presentation skills. At the conclusion of this course, participants should be able to:

- Tailor sales presentations to match customer needs and emotional logic
- Distinguish between effective and ineffective selling and presentation techniques
- Identify ways to incorporate messages that help up-sell or cross-sell products
- Practice developing a sales presentation that will impress customers and concisely communicate the message

Recommended prerequisites: ESCR111, ESCR112

ESCR312 Optimizing Your Written Proposals

Catalog #: ESCR312-9, Thursday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Eric Pikcilingis, Choate Systems Installation – CCI

Location: B406b

The purpose of this course is to provide participants with the opportunity to revise a sales proposal to make it more successful. Learning how to customize sales proposals and exploring the common elements of successful proposals will help participants gain insight into customer needs. At the conclusion of this course, participants should be able to:

- Define sales strategy for a customer based on their needs
- Customize proposals to match customer needs and emotional logic
- Critique their own proposals based on proven proposal-writing guidelines
- Revise an existing proposal to communicate their message more concisely to impress customers

Pre-work assignment: Participants will need to select two actual proposals they have written for customers –

one that was accepted and one that was not. Please bring these proposals to class.

Recommended prerequisites: ESCR111, ESCR112

*Formerly known as ESCR312: Customizing Your Written Proposals

ESCR331 Evaluating Your Business Connections

Catalog #: ESCR331-8, Saturday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Ryan Brown, Media Environment Design, Inc. – CCI

Location: B404

The purpose of this course is for participants to learn the criteria for successful business relationships. They will examine the warning signs of a connection in jeopardy, and learn communication techniques that can assist in repairing relationships. Participants will discover ways to successfully and professionally end a business relationship when a connection is no longer working. At the conclusion of this course, participants should be able to:

- Evaluate the effectiveness of an existing business relationship and identify any needed adjustments
- Identify cues that indicate the connection is not working and identify how and when to address problems
- Identify how and when to address problems using phone, email, or face-to-face discussion
- Determine when a business connection should be re-negotiated or ended

Recommended prerequisite: ESCR231

ESCR401 Creating and Maintaining A Five-Star Customer Experience

Catalog #: ESCR401-10, Friday: 1:00 PM - 4:00 PM

CEU Value: 3

Location: B405

The purpose of this course is to help participants take their company's customer service to the next level. They will learn how to gather customer feedback and make proactive changes to promote service excellence. Participants will begin to draft a new, comprehensive customer service plan that will explain their five-star philosophy. At the conclusion of this course, participants should be able to:

- Define five-star customer service and identify why it is critical to the long-term success of your company
- Identify all points of contact and create a five-star service and delivery plan for internal and external resources
- Manage and control customer expectations and satisfaction throughout the project
- Develop quantifiable metrics and establish best practices to obtain and evaluate customer feedback
- Use customer experience evaluation to refine service delivery processes, products, and services

Recommended prerequisites: ESCR101, ESCR201

ESCR411 Delivering Effective Sales Presentations

Catalog #: ESCR411-10, Saturday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Richard Murphy, Quinn Murray Electric – CCI

Location: B406b

The purpose of this course is for participants to learn simple ways to adapt their sales presentations to meet customer styles. Classmates will give and receive feedback on delivery, platform skills, and ability to communicate technical topics to a non-technical customer. At the conclusion of this course, participants should be able to:

- Use effective delivery techniques when making a sales presentation
- Identify personal strengths and weaknesses in making presentations and create an action plan for improving their delivery
- Evaluate how well they communicate about technical products to a non-technical audience

Recommended prerequisites: ESCR111, ESCR211, ESCR311

ESCR412 Coaching Your Sales Team to Outstanding Performance

Catalog #: ESCR412-9, Friday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Steve Firszt, Fast-Forward Business Coaching – CCI

Location: B406

The purpose of this course is to help participants discover creative ways to assess their staff's sales skills while developing coaching skills. Participants will build a coaching model that is tailor-fit to individual employee needs. They will learn to give effective feedback to improve performance without being seen as critical of an employee. At the conclusion of this course, participants should be able to:

- Identify appropriate coaching techniques to use with their sales team
- Practice using a feedback model that focuses on performance and results
- Create an evaluation tool to help assess their staff's selling skills and areas for improvement

Recommended prerequisites: ESCR111, ESCR211



ESCR033 What Women Want - Selling Home Entertainment Systems That Benefit Her Lifestyle

Catalog #: ESCR033-17, Thursday: 3:00 PM - 4:30 PM

CEU Value: 0.75

Instructor: Carol Campbell, Custom Retailer Magazine – CCI

Location: B404

Market research confirms that women are increasingly the primary decision-makers in large, custom installation sales to families. There are even more sales opportunities when women are targeted as a single head-of-household individual. Learn how to shape proposals and interactions with women by understanding the differences in how they use technology and emphasizing the enhancements to their lifestyle. Success stories, listening skills, and class participation contribute to an understanding of what women want from the shopping experience.

ESCR065 Sell...More...Effectively

Catalog #: ESCR065-1, Friday: 9:00 AM - 10:30 AM

CEU Value: 0.75

Instructor: Bob Gassel, Gassel Group, LLC – CCI

Location: B406

This course is intended to enhance understanding of consumer buying behavior, allowing you to sell more products at greater profit while increasing the satisfaction and loyalty of your clients. This seminar will cover:

- How to sell more products at the profit you need
- How to present complex products and services to maximize desire
- The hierarchy of desire: experience, benefits, functions, features

ESCR067 Grow Your Business Green

Catalog #: ESCR067-1, Saturday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: Steve Castle, Green Tech Advocates

Location: B407

Participants will review the many ways to provide green home technologies for clients, what constitutes green home technologies, greenwashing tactics to avoid, and the benefits of selling green home technologies. It will also explain how to incorporate green principles into your business operations to show your clients that you are leading by example. At the conclusion of this course, participants should be able to:

- Understand the different green tech services they can sell
- Effectively start a green tech arm of their business
- Identify ways to market green technology services
- Speak “green” or “energy efficiency” language with customers
- Incorporate green practices within a business

ESCR099 Social Networking: Get with the Program

Catalog #: ESCR099-473, Wednesday: 9:00 AM - 12:00 PM

CEU Value: 1.5

Instructor: Courtney Manlove, Monster Cable and Tim Christensen, Vanns

Location: B405

Do you know how to Tweet? Ever heard of Facebook? Are you “connected” on LinkedIn? It is time to “Get With the Program” and take advantage of what social networking can do for your company. In this course, participants will learn the different functionalities of the most popular platforms, how social networking benefits their company’s branding and visibility, and helpful hints on creating and maintaining a social networking profile.

At the conclusion of this course, participants should be able to:

- Select which social networking platforms best compliment their business model and marketing goals
- Gather ideas for building a social networking profile for their company
- Understand the benefits of lead generation, increased web traffic, and search engine statistics
- Discover methods for sustaining and growing their presence with social networking



Core Curriculum

ESD111 Distributed Audio Systems Overview

Catalog #: ESD111-27, Wednesday: 10:00 AM - 1:00 PM

CEU Value: 3

Instructor: Bill Ekstrand, Integrated Control Experts, Inc. – CCI

Location: B301

The purpose of this course is to provide individuals new to the industry with an overview of distributed audio as used in residential applications. This course outlines the basic principles and terminology associated with distributed audio. It also covers the typical uses and methods of providing distributed audio, as well as common design goals and control considerations. At the conclusion of this course, participants should be able to:

- Define basic distributed audio terms
- Describe distributed audio principles
- List the various methods used in distributed audio
- Describe the basic components of distributed audio
- Discuss control options

ESD121 Introduction to User Interfaces

Catalog #: ESD121-15, Wednesday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: George Georgiou, Cintec – CCI

Location: B302

The purpose of this course is to explore a range of user interfaces, from simple volume controls to touchscreen and web-based controls. This course will also discuss how to determine the right user interface for an application. In this course, an emphasis is put on understanding and meeting client needs. This course teaches how to design user interfaces that insulate users from electronic complexity while unlocking the content and features they desire. It will also help designers make common tasks easy and complex tasks seem possible. At the conclusion of this course, participants should be able to:

- Define the strengths and weaknesses of common user interfaces
- Focus on the client as the key factor in user interface design and recognize how this improves the client's satisfaction and ease in interfacing with the system
- Cite critical factors involved with selecting user interface hardware
- Describe how to use paper prototyping for design verification

Recommended prerequisite: EST404

ESD131 Fundamentals of Home Theater Design

Catalog #: ESD131-34, Wednesday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Jeff Kussard, Capitol Sales Company – CCI

Location: B303

The purpose of this course is to educate industry personnel on the basic terms, elements, and requirements of home theater design. This course examines the added value an experienced designer can bring to a project. It also covers all of the typical components in a theater system, and introduces participants to such design challenges as viewing distance, image size, and room acoustics. At the conclusion of this course, participants should be able to:

- Describe the technology used in custom home theaters
- Identify the goals of a properly designed theater system
- Describe the differences between a dedicated theater and a less formal media room
- Discuss the impact of other sub-systems such as HVAC and lighting
- Identify typical acoustical challenges and their solutions

Recommended prerequisite: EST225

ESD142 Introduction to Digital Media Servers

Catalog #: ESD142-13, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Gordon van Zuiden, cyberManor – CCI

Location: B312

The purpose of this course is to educate industry personnel on digital media fundamentals, including the hardware, software, and technology of media servers; distribution methods using analog and IP based systems; common recording formats; and the legal issues for digital rights management. This course also includes information and examples of how to select and install a media server that meets client needs and budgets. At the conclusion of this course, participants should be able to:

- Define basic digital media server technology and identify the benefits and drawbacks of server use
- Describe the hardware and software requirements for media servers
- Identify current distribution methods for digital media
- List the common recording formats for digital media
- Explain the legal issues surrounding digital rights management

ESD151 Introduction to Video and Imaging

Catalog #: ESD151-11, Wednesday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Dennis Erskine, Erskine Group, LLC – CCI

Location: B204

The purpose of this course is to educate participants on the history of video technology and the basics of video standards and specifications. This course also explores the differences in display types as LCD, Plasma, DLP, LCOS, and LED. At the conclusion of this course participants should be able to:

- Outline the history of video technology including the development of analog and digital television
- List the ATSC video formats and describe their video imaging attribute
- Explain basic video terms and concepts such as visual accuracy and image perception
- Define the pros and cons of different display technologies
- Explain how video processing works and describe the various controls and adjustments available on most video display units
- Explain how to interface video sources and the benefits of various connectivity options

ESD161 The Designer, the Client, and the Process

Catalog #: ESD161-16, Wednesday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Sam Cavitt, Media Environment Design, Inc. – CCI

Location: B303

The purpose of this course is to define the roles of the designer as a marketing expert, salesperson, anthropologist, communicator, engineer, and project manager. It teaches designers how to promote their expertise as a professional benefit. This course will explain the five-step process leading to an accurate problem definition. This course also discusses how to pose professional questions in order to ascertain a client's lifestyle and how to use this information to provide quality solutions. At the conclusion of this course, participants should be able to:

- Describe the roles of a designer
- Explain the value-added service offerings of a professional designer
- Describe the five steps required to arrive at a properly stated problem
- Define how to ascertain a client's lifestyle through proper interviewing techniques
- Outline how to approach system design to meet client needs

ESD162 Design Documents

Catalog #: ESD162-12, Wednesday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Ryan Brown, Media Environment Design, Inc. – CCI

Location: B301

The purpose of this course is to educate participants on documenting the design and installation process. This course teaches the importance of complete and accurate project documentation, common document types and terminology, as well as the preparation and interpretation of plans and drawings. This course requires no prerequisite CEDIA courses, but there is the expectation that designers and installers have a working knowledge and experience with line and schematic diagrams, architectural drawings, and fundamental documentation procedures. At the conclusion of this course, participants should be able to:

- Communicate the importance and value of thorough documentation to all project stakeholders
- Define all common project documentation terminology, including various construction and design terms/acronyms
- List, define, and prepare all appropriate project documents and drawings
- Outline procedures for documenting special subcontractor issues, including standards of work criteria
- Prepare simple one-line drawings and annotate blueprints and elevations

ESD211 Fundamentals of Distributed Audio Systems

Catalog #: ESD211-23, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Bill Ekstrand, Integrated Control Experts, Inc. – CCI

Location: B202

The purpose of this course is to educate people in the industry about the design and specification of multi-room/multi-zone audio systems. This course focuses on the application of the four primary ways that amplification is provided in distributed audio systems: discrete channel, shared channel, constant voltage, and local amplification. In addition, it provides in-depth coverage of the calculations necessary to determine the required amplification as well as the impedance and power distribution of various configurations. At the conclusion of this course, participants should be able to:

- Discuss the benefits and trade-offs of discrete channel, shared channel, constant voltage, and local amplification
- Determine the amplification necessary to achieve a target sound pressure level (SPL)
- Calculate the impedance and power distribution within various speaker matrices
- Specify the wiring topology and settings for each amplification type
- Define the procedures necessary to validate and calibrate a distributed audio system
- Determine the required amplification, cooling/ventilation, wire sizes and types, and calculate the pathways and junctions typically used

Recommended prerequisite: ESD111

ESD223 Introduction to Lighting and Lighting Control

Catalog #: ESD223-13, Thursday: 1:00 PM - 2:30 PM

CEU Value: 1.5

Instructor: David Weinstein, Lutron

Location: B303

The purpose of this course is to educate participants in the general knowledge of the elements of a lighting installation in order to achieve the basic skills needed prior to configuring a lighting control system. This course instructs participants on load types, luminaries, measured and perceived lighting, light dimming, integrating lighting components, physical layers for electrical supply, and lighting control. At the conclusion of this course, participants should be able to:

- Identify load types, including incandescent, fluorescent, induction, high intensity discharge (HID), and light emitting diodes (LED)
- Classify luminaries by source, mounting, construction, application, and photometric characteristics
- Explain basic lighting control configuration, including the understanding of the electrical and control physical layers
- Explain how components should be put together to get them to work
- Describe the difference between switching, dimming, and dimming perception

ESD232 Home Theater Room Design

Catalog #: ESD232-31, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Sam Cavitt, Media Environment Design, Inc. – CCI

Location: B305

The purpose of this course is to educate industry personnel about such design considerations as room location, layout, and shape. This course examines the impact of lighting conditions, sightlines, and noise generating components on design. This course also teaches participants the importance of factoring in ergonomics, safety, and acoustical distortion into a holistically designed room. At the conclusion of this course, participants should be able to:

- Differentiate between a variety of physical room factors in determining the optimum home theater design
- Summarize fundamental acoustic principles to room and component layout
- Discuss lighting factors to determine best lighting control devices and video display specifications
- Describe the holistic principles necessary for room design and performance integration

Recommended prerequisites: ESD131, EST225

ESD262 Client Instructions

Catalog #: ESD262-15, Thursday: 1:00 PM - 2:30 PM

CEU Value: 1.5

Instructor: Ryan Brown, Media Environment Design, Inc. – CCI

Location: B301

The purpose of this course is to teach participants how to document the operation of user interfaces. This course instructs participants on drafting customized instructional manuals of all installed components for primary and secondary users, as well as preparing system layout drawings for rack and system schematics. This course also instructs participants to address client questions about interface operations, rack ventilation, warranty cards, and follow-up service. At the conclusion of this course, participants should be able to:

- Document the operation of user interfaces
- Draft standardized and customized instructional manuals on all installed components for primary and secondary users
- Prepare system layout drawings for racks and system schematics
- Collect and organize manufacturer manuals and warranty documents for all installed components
- Train diverse clients on how to operate installed systems

Recommended prerequisites: ESD121, EST404

ESD301 Home Theater and Acoustics Part I

Catalog #: ESD301-1, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Dr. Floyd Toole – CCI

Location: B304

The purpose of this course is to explain the basic dimensions of sound, sound propagation in rooms, and perception by listeners. This course demonstrates how scattering and diffusing devices and absorbers work, and how they interact with sounds radiated by loudspeakers. It will explain the basics of loudspeaker measurements and how they relate to listener preferences. At the conclusion of this course, participants should be able to:

- Understand key sound fundamentals as they relate to the choice and placement of loudspeakers and acoustical materials for home theaters
- Appreciate the differences between absorption and transmission loss as they relate to the different acoustical and structural materials
- Analyze how the size and shape of a room (length, width, and height) affect bass sounds in terms of frequency response and seat-to-seat variations
- Recognize that sound, sound propagation, acoustical materials, and loudspeakers allow designers to substantially anticipate the quality of sound reproduction within a room or theater

Recommended prerequisite: ESD131

*Formerly known as ESD135: Fundamentals of Sound Reproduction

ESD302 Home Theater and Acoustics Part II

Catalog #: ESD302-1, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Dr. Floyd Toole – CCI

Location: B315

The purpose of this course is to explain the aspects of direction and space that need to be reproduced in home theaters, as well as how multiple channels and loudspeakers can be used to achieve these illusions. Topics include the consequences of using free-standing, in- or on-wall loudspeakers; different configurations of surround loudspeakers, loudspeaker transducers, and popular enclosure designs. The course also discusses how sound is influenced by impedance, damping, wire, and amplifier properties. At the conclusion of this course, participants should be able to:

- Express the requirements for a surround-sound system optimized for a given room and audience size
- Summarize the requirements for specific loudspeakers to deliver good sound and the appropriate directional and spatial illusions of multichannel music and movies
- Distinguish between those specifications that are important and those that are not informative
- Decide on the key elements of a home theater system (loudspeakers, amplifiers, wiring) based on an analysis of the customers needs and the restrictions imposed by the realities of the room

Recommended prerequisite: ESD301

*Formerly known as ESD235: Principles of Multichannel Audio Systems

ESD303 Home Theater and Acoustics Part III

Catalog #: ESD303-1, Friday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Dr. Floyd Toole – CCI

Location: B315

The purpose of this course is to provide an understanding of how acoustics and psychoacoustics influence what we hear and how to take advantage of that knowledge to optimize the listening experience. Factors affecting the choice, location, and mounting of loudspeakers are presented. Strategies will be shown to illustrate how room dimension, seat location, and multiple subwoofers can be manipulated to deliver similar bass to several listeners. Finally, guidelines for the use of equalization are reviewed. At the conclusion of this course, participants should be able to:

- Design a theater audio system that delivers the best possible performance within the budgetary and physical constraints of the project
- Solve for optimum speaker and listener placement within the designed or available space
- Analyze the specific circumstances and select appropriate loudspeakers for each of the channels
- Develop solutions to room mode issues to ensure optimum bass performance throughout the home theater
- Evaluate the need for specific room acoustic treatments and/or equalization to assist loudspeakers in delivering the required perceptual effects

Recommended prerequisites: ESD301, ESD302, EST225, EST325

*Formerly known as ESD335: Home Theater Audio and Acoustics

ESD311 Advanced Distributed Audio Systems

Catalog #: ESD311-12, Friday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Joel Rosenblatt, A/V Marketing Consultants – CCI

Location: B214

The purpose of this course is to educate people in the industry about the design and specification of multi-room/multi-zone audio systems. This course covers acoustical concepts and other factors affecting optimal speaker selection and placement in various settings. It also addresses appropriate sound pressure level (SPL) and methods for achieving uniform coverage, as well as performance considerations, aesthetics, and control techniques. At the conclusion of this course, participants should be able to:

- Develop a common frame of reference with clients and conduct an appropriate client-needs analysis
- Design a distributed audio system incorporating advanced performance, aesthetics, and control/integration techniques
- Identify acoustical properties and factors influencing optimal speaker selection and placement, including trade-offs between in-room, in-ceiling, and in-wall speakers
- Design and specify distributed audio systems that meet identified performance criteria

ESD321 Sub-Systems: Security

Catalog #: ESD321-8, Saturday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Bill Ekstrand, Integrated Control Experts, Inc. – CCI

Location: B304

The purpose of this course is to give participants the opportunity to analyze and apply principles related to security, CCTV, and access control integration. Participants will take basic principles they have already learned regarding security systems, components, and interfacing and analyze and apply that knowledge in new situations. It is expected that participants will already have a requisite knowledge of basic sub-system control and security components. It is strongly suggested that participants have already taken the recommended prerequisites listed below. At the conclusion of this course, participants should be able to:

- Examine the advantages and disadvantages of various types of CCTV systems (DVR, storage, video servers, IP-enabled)
- Assess life safety systems to address smoke, heat, and intrusion detection, among others
- Demonstrate the value of working with security contractors
- Evaluate certifications and regulations
- Assess integration and control of security, CCTV, and access control systems

Recommended prerequisite: EST202

ESD322 Sub-Systems: HVAC

Catalog #: ESD322-8, Saturday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Greg Mascherino, Aurant – CCI

Location: B304

The purpose of this course is to give participants the opportunity to analyze and apply principles related to HVAC control and interfacing. Participants will take basic principles they have already learned regarding HVAC systems, components, and interfacing and analyze and apply that knowledge in new situations.

They will learn how to analyze and apply BTU and noise isolation principles related to HVAC control and interfacing. In so doing, they should be able to design controls/interfaces that work seamlessly with home theater design principles. It is expected that participants will already have a requisite knowledge of HVAC terms and definitions along with other sub-systems and HVAC-related topics. It is strongly suggested that participants have already taken the recommended prerequisites listed below. At the conclusion of this course, participants should be able to:

- Differentiate between system types such as forced air, radiant, ground/water source, and zoning
- Apply BTU and noise isolation principles
- Implement system controls/interfaces for communicating thermostats, zoning systems, energy recovery ventilation, and advanced energy management systems

Recommended prerequisite: EST202

ESD323 Sub-Systems: Lighting

Catalog #: ESD323-10, Friday: 9:00 AM - 10:30 AM

CEU Value: 1.5

Instructor: Eric Lee, Integrated Control Experts – CCI

Location: B301

The purpose of this course is to give participants the opportunity to analyze and apply principles related to lighting control and interfacing. Participants will take basic principles they have already learned regarding lighting components, interfacing, and control, and analyze and apply that knowledge in new situations. It is expected that participants will already have a requisite knowledge of basic lighting components, wiring, and sub-system integration. At the conclusion of this course, participants should be able to:

- Differentiate between the lighting system control types (distributed, centralized, wired, wireless, new construction)
- Describe the implications of integrating the above-described types to other control and sub-system designs
- Select appropriate communication interfaces and protocols for lighting control
- Select the preferred user interface options required for lighting control systems

Recommended prerequisites: ESD223, EST202

ESD324 Sub-Systems: Motorization

Catalog #: ESD324-8, Saturday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Mario Leone, Electronic Solutions Co. – CCI

Location: B202

The purpose of this course is to give participants the opportunity to analyze and apply principles related to motorization and sub-system integration. Motorization implies that some physical action will be taking place by the implementation of a motorized system or mechanism to perform a given function. This is generally to meet a spatial or aesthetic need or desire. Participants will take basic principles regarding motorization and analyze and apply that knowledge in new situations. It is expected that participants will already have a requisite knowledge of major sub-system components and basic integration principles. At the conclusion of this course, participants should be able to:

- Define a motorization need and choose a mechanism
- Analyze a site's physical conditions (existing and proposed)
- Assess the ergonomics of the mechanism
- Define the mechanism's requirements and installation requirements
- Define safety issues and schedule maintenance
- Describe system integration requirements

Recommended prerequisite: EST202

ESD325 System Control Protocols

Catalog #: ESD325-8, Saturday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Mario Leone, Electronic Solutions Co. – CCI

Location: B301

The purpose of this course is to provide designers with an advanced knowledge of using communication protocols to control systems. Participants will study the differences in handling communication protocols depending upon physical connectivity, packet structure, and supported command set. This course will explore the mysteries of protocol documents, checksums, and CRCs, as well as the ways they can be used to perform real-world actions. Participants will learn to identify and solve problems encountered when controlling subsystems. This course also identifies the command sets each typical residential sub-system should support for useful integration. It is expected that participants already have a requisite knowledge of the basic use and function of common residential systems and are comfortable with the hexadecimal and binary numbering systems and programming concepts. At the conclusion of this course, participants should be able to:

- Identify and address communication issues arising from connectivity and protocol use
- Comprehend communication protocol documentation and recognize the pertinent portions
- Apply various solutions to real-world system control problems
- Recognize shortcomings in system control protocols

Recommended prerequisite: ESD124

ESD327 User Interface Design: Specifying the Programming

Catalog #: ESD327-10, Thursday: 3:00 PM - 4:30 PM

CEU Value: 1.5

Instructor: Jeff Kussard, Capitol Sales Company – CCI

Location: B301

The purpose of this course is to explore the designer's role in user interface programming and to provide practical guidance for the user interface programming process. It addresses the procedures and documentation essential to top-quality user interfaces that are tailored to clients' differing needs and abilities. It identifies different usage levels and discusses how to address those different levels when programming an interface. It is

expected that participants will already have a requisite knowledge of user interfaces. At the conclusion of this course, participants should be able to:

- Analyze the benefits of designers dictating programming
- Create standardized engineering documents and user instructions for a user interface, including menus and function trees
- Develop a procedure and standardized documentation for testing and evaluating equipment to be controlled
- Assess the difference between designing for simple operation and designing for power use
- Establish techniques and timelines for user interface mock-up sign-offs

ESD332 Home Theater Video and Imaging

Catalog #: ESD332-23, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Mario Leone, Electronics Solutnion Co. – CCI

Location: B314

The purpose of this course is to educate participants at all levels in the industry about film and video aspect ratios and design and cost considerations for home theaters. Information will be provided about assisting clients in selecting the correct aspect ratio, screen-to-projector ratio, and ambient lighting.

Participants will also learn about 2.35 projections, throw distance, masking, and image enhancement in home theaters. It is expected that participants will already have a requisite knowledge of home theater video and imaging. At the conclusion of this course, participants should be able to:

- Classify aspect ratios
- Examine screen size and placement
- Compare and contrast six viewing sources
- Distinguish characteristics of a variety of video display options
- Analyze interlaced and non-interlaced video formats

Recommended prerequisites: ESD151, EST211, EST225, EST311

ESD341 Designing Ethernet Networks *Hands On*

Catalog #: ESD341-11, Friday: 9:00 AM - 1:00 PM

CEU Value: 4

Instructor: Ben Komar, Komar Associates, Inc. – CCI

Location: B214

The purpose of this hands-on course is to educate participants about the importance of thoughtful network design when coming up with solutions for converging sub-systems onto an IP network. This course looks at analyzing bandwidth and QOS requirements, and the importance of correct hardware specification for network infrastructure. Both wired and wireless networks will be covered as well as looking ahead to the requirements of future technologies. It is expected that participants will already have an understanding of fixed and dynamic host configuration protocol (DHCP) IP addressing, the Open Systems Interconnection (OSI) model, and subsystems that can be converged over IP. At the conclusion of the course, participants should be able to:

- Describe the bandwidth and quality of service requirements of Ethernet networks
- Specify and describe the correct cabling infrastructure to support an IP network with given bandwidth and QOS requirements
- Design and document a cabling scheme to support a wired network
- Design a cable infrastructure to support a wireless network while considering performance requirements
- Specify the correct installed and active infrastructure components for Ethernet networks
- Assess the requirements for emerging technologies, including multicasting, bandwidth, and security

Recommended prerequisites: EST202, EST243

ESD342 Integrating Games Into Electronic Systems

Catalog #: ESD342-15, Saturday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Robert Gilligan, Engineered Environments

Location: B212

The purpose of this course is to help industry personnel define the needs of gaming systems and the space they occupy. This course will offer solutions to those challenges presented when integrating game consoles, furniture, controllers, and audio/video systems together as one complete system. It is expected that participants will already have a requisite knowledge of PC configuration and networking. At the conclusion of this course, participants should be able to:

- Define the design and equipment requirements for gaming systems: single player, multiple player, and networked
- Identify methods (and ergonomic challenges) to integrating game consoles, furniture, controllers, and audio/video systems into one complete system
- Compare the characteristics of home theaters, media rooms, and gaming rooms
- Explain differences between computer-based and console-based game systems
- Describe the future of gaming and virtual reality options

Recommended prerequisite: EST243

ESD431 Advanced Home Theater Design Lab

Catalog #: ESD431-11, Thursday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: Anthony Grimani, Performance Media Industries, Ltd.; Zach Holcomb, Holcomb Audio Visual Technologies – CCI; Rich Green, Rich Green, Ink. – CCI

Location: B302

The purpose of this course is to provide advanced home theater designers with the opportunity to put into practice all the information learned in the lower and intermediate home theater design courses.

Participants will benefit from CEDIA's recommended practices in a lab setting where a variety of scenarios will challenge them under the guidance of skilled and experienced instructors. This course provides information about room layout and dimensioning, including placement of seats, audio and video equipment selection, positioning of equipment (screen, loudspeakers, subwoofers), and acoustical treatments. It is expected that participants will already have a substantial requisite knowledge of home theater design. It is strongly suggested that participants have already taken the prerequisites shown below. At the conclusion of this course, participants should be able to:

- Design a home theater room for high performance audio and video in order to deliver an optimum home theater experience
- Predict acoustic performance and derive solutions to optimize audio system performance in a given acoustic space
- Integrate the home theater into the home in such a manner as to minimize any negative interaction between it and the rest of the house
- Document all electronic systems, including audio and video electronics, speakers, furniture, and control systems
- Design sub-system integration so all kinds of distributed media are readily available to the home theater system

Recommended prerequisites: ESD131, ESD161, ESD232, ESD341, ESD342

ESD441 Distributed Media Design

Catalog #: ESD441-14, Friday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Gordon van Zuiden, cyberManor – CCI

Location: B203

The purpose of this course is to educate industry personnel about the issues surrounding distributed media. The course will discuss integration issues and designing multiple kinds of distributed media systems. It is expected that participants will already have a requisite knowledge of analog and digital video and audio distribution, as well as knowledge of home theater design. At the conclusion of this course, participants should be able to:

- Integrate diverse analog and digital media sources and systems for distribution throughout a residential or commercial space
- Plan various sub-systems and systems integration in order to store and access multiple media sources simultaneously throughout the target location
- Recommend specific components and distribution methods to optimize the client's access to and enjoyment of the various media available
- Integrate audio and video distribution systems to take advantage of the distributed media systems available
- Create integrated control systems that optimize client enjoyment while at the same time ensuring that system control is easy for everyone to use and understand

Recommended prerequisites: ESD111, ESD131, ESD142, ESD211, ESD311, EST405



Electives

ESD005 HDMI Hot Seat

Catalog #: ESD005-5, Wednesday: 3:00 PM - 5:00 PM

CEU Value: 1

Location: B214

Some say HDMI is the connectivity method “you can’t live with, but you can’t live without.” To help you better integrate HDMI in your system installations and upgrades, the CEDIA Technology Council will host a two-hour panel discussion with HDMI industry leaders. Topics covered include how HDMI handles 3D, 4K, and Deep Color; the state of HDMI; current solutions; and HDMI’s future in the industry.

Key Topics:

- HDMI integration issues
- Content protection, such as HDCP and “tagging and flagging”
- HDMI features: CEC, Lip Sync, 4:4:4 color space, 4K
- HDMI and cables
- Ethernet and audio return path
- IP distribution as a viable alternative to HDMI

ESD013 Designing Residential Energy Management Systems

Catalog #: ESD013-16, Thursday: 9:00 AM - 12:00 PM

CEU Value: 1.5

Instructor: Austin Lowery, Jetson Systems

Location: B302

This course will discuss the hardware and software requirements needed to manage and display power, water, and gas consumption within the home. This course will also cover specific areas of education that the ESC should provide the homeowner to maximize the results of their system and reduce their consumption. At the conclusion of this course, participants should be able to:

- Identify the various types of sensors required to monitor consumption
- Discuss how to interface data into meaningful and useful results for the client
- Educate the end-user on how to maximize the energy management system and reduce their environmental impact

ESD014 The Future Opportunities of Residential Communications

Catalog #: ESD014-7, Saturday: 1:00 PM - 3:00 PM

CEU Value: 1

Location: B203

This two-hour panel discussion will explore the current and future trends of residential communications, from traditional land-lines and VOIP, to social media integration and tele-presence. The panel will examine how business models are changing for the CEDIA member, as well as the ways to capitalize on this changing

Key Topics:

- Emergence of SkypeTV
- Social Media Integration
- Mobile Device Integration
- Impact of Tablet PCs

ESD016 Integrating Smart Glass Technology for Lifestyle Enhancement and Energy Savings

Catalog #: ESD016-13, Saturday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: Greg Sottile, Research Frontiers, Inc.

Location: B202

What is smart glass? And, more importantly, how can it be used in residential applications to enhance lifestyle and save energy? This class introduces attendees to the exciting new material known as smart glass, a tint which can be adjusted to precisely control the amount of light, glare, and heat passing through windows, doors, skylights, and partitions. Smart glass is the state-of-the-art in residential shading and security and offers integrators and homeowners distinctive design possibilities and equally impressive "green" capabilities to improve comfort and reduce energy consumption. This class describes smart glass and its exterior and interior applications, discusses integration of smart glass into homes using a number of control systems (automated and manual) and framing materials, and offers ideas on how to create a smart glass showroom or design center. In addition, the class demonstrates how smart glass can save energy by lowering use of artificial lighting and reducing heating and cooling costs. Don't miss this opportunity to learn about this versatile product category which can enhance your residential projects for years to come!

ESD018 Digital Home Health: What it is and How it Affects Us All

Catalog #: ESD018-14, Friday: 2:00 PM - 4:00 PM

CEU Value: 1

Location: B312

One of the hottest topics in the United States right now is health care. With the new Healthcare bill, it is apparent that demand for health care will outpace the supply of health care providers. In order to bridge the gap of care, technology will play an integral role in health and elder care. This two-hour panel discussion will use industry experts to explain where this emerging industry is going and how it relates to the custom installer.

Key topics:

- Digital home health
- Why "home" instead of "hospital"
- The difference between "wellness" and "healthcare"
- Technologies available right now
- Technologies on the horizon in the next 12 months
- Enterprise level (health records, tele-presence)
- Consumer level (data collection, health records, stand-alone gadgets)

ESD021 The Future of Home Entertainment

Catalog #: ESD021-4, Thursday: 11:00 AM - 1:00 PM

CEU Value: 1

Location: B405/406a

This two-hour panel discussion will inspect the state of the home entertainment industry, from gaming, movies, 3D, and social interaction on televisions. This panel will discuss the current state of the industry, debate which technologies will impact the market immediately and over the next few years, and forecast the products that will affect the custom installation market over time.

Key Topics:

- Cloud Computing/Over The Top (OTT)
- Next Gen Gaming
- 3D: Immersive or Gimmick
- 4K
- Tablet PC's

ESD026 Acoustic Isolation and Noise Control

Catalog #: ESD026-7, Thursday: 2:00 PM - 5:00 PM

CEU Value: 1.5

Instructor: Dr. Floyd Toole – CCI

Location: B202

Sound isolation needs to work in two directions: preventing unwanted sounds from disrupting entertainment inside a home theater and preventing the dramatic sound effects of action movies from being a nuisance in other parts of the home. This course discusses what to look for when locating a theater in a home, and how best to deal with existing noise sources inside the theater, within the home and outdoors. It will explain how to decide on the transmission loss requirements for walls, ceilings, floors, windows, and doors, as well as how to achieve the necessary performance using common materials and some proprietary ones. You will learn how to interpret specifications and analyze construction methods as they affect your customers. There is no point telling a customer that a wall is satisfactory because it has a certain STC (Sound Transmission Class) rating, if he or she cannot work in an adjacent office because of intrusive “booms.” It is also important to know what can and cannot be done in real life situations, especially in retrofits.

ESD029 New Technologies Update

Catalog #: ESD029-36, Friday: 10:00 AM - 12:00 PM

CEU Value: 1

Instructor: Michael Heiss, M. Heiss Consulting – CCI

Location: B203

Technology is a moving target for everyone in the custom installation business and to help keep ahead of the curve Michael Heiss' annual update provides a snapshot of the current state of key technologies and a view on their direction in the next 24 months. What is the outlook for 3D, display technologies, “Over The Top” and content distribution, optical disc formats, networking, wireless, audio formats, set-top boxes, and all the other bits and pieces that you need to consider when planning a system or putting it in place. How will technology change the products sold and installed today, and what will be new tomorrow? Participants get the latest news and status reports at “The Update,” now extended to two hours for more information and so Michael doesn't have to talk so fast!

ESD030 Projection Screens

Catalog #: ESD030-19, Friday: 1:00 PM - 4:00 PM

CEU Value: 1.5

Instructor: Don Stewart, Stewart Filmscreens

Location: B314

In order to achieve absolute image fidelity in any home theater application, it is crucial to have an understanding of projection screen technologies and their integration into the overall system and design. In this course, participants will review topics such as front and rear screen applications, screen types, surface design, screen gain, and screen size in relation to seating distance, aspect ratios, and image perception. This course will also cover recent advancements in screen products and the future of screen technologies. Overall, this course will teach participants how to choose the right screen for every application and design.

ESD031 Acoustical Treatments

Catalog #: ESD031-23, Friday: 1:00 PM - 4:00 PM

CEU Value: 1.5

Instructor: Anthony Grimani, Performance Media Industries, Ltd.

Location: B301

Believe it or not, only a small portion of the sound heard in a home theater comes from the speakers. Most of what enters the ears is actually reflected off the walls and other surfaces in the room. Every reflection is essentially a “phantom” loudspeaker adding to or subtracting from the sounds heard in the room. Discover how to identify and tame these sound reflections through the use of absorbers, diffusers, bass traps, and other specialty devices. Learn how to tweak a room and maximize the prime listening zone through proper use of acoustical treatments.

ESD034 Designing and Installing Photovoltaic Solar Power Systems

Catalog #: ESD034-9, Friday: 10:00 AM - 1:00 PM

CEU Value: 1.5

Instructor: Ken Erdmann, Erdmann Electric, Inc. – CCI

Location: B302

On a clear day, direct sunlight can create 1000 watts of energy on a square meter of earth. This energy is created without burning any fossil fuels. Yet, creating electrical power from sunlight is far from free, or without impact on our environment. Individuals considering working in this area of emerging technology should have a good understanding of what is involved. As part of this course, participants will do cost versus benefit analyses of these systems, including the potential for alternative energy tax credits and power company rebates as part of incentives for homeowners to have these systems installed. Among the issues to be covered;

- The electrical needs of a residence and how to power those electrical loads
- The different battery technologies and how to determine which battery type (and how many batteries) will be needed for the desired amount of energy storage
- The implications of net metering and grid tied photovoltaic power systems, including NEC requirements as they regulate the installation of solar photovoltaic systems
- The pros and cons of roof mounting versus ground pole tracker installation of solar arrays

ESD035 Acoustics 101 - An Introduction to How Sound Works in the Real World

Catalog #: ESD035-14, Thursday: 9:00 AM - 12:00 PM

Catalog #: ESD035-13, Saturday: 1:00 PM - 4:00 PM

CEU Value: 1.5

Instructor: Dr. Bonnie Schnitta, SoundSense, LLC. – CCI

Location: Thursday – B301 Saturday - B216

What happens to sound when it strikes walls and ceilings? How does sound travel through walls and ceilings? Since much of the sound you hear in a theater system is actually reflected off the boundaries of the room instead of coming directly from the loudspeakers, how do we manage that sound for the listener? These and other questions will be answered as an ideal acoustic environment is defined.

Fundamental tools used in the acoustic design will be presented to demonstrate how sound works and how an installer can control the negative impact of room reflections and unwanted sound transmission from room to room. Additionally, several innovative approaches to solving acoustic problems will be presented, such as changing the resonance of glass. This will include a discussion of the tools to quantify the effectiveness of acoustic materials or configurations for specific frequencies and applications. With a wider variety of theater and media room configurations, it is increasingly important to understand the acoustical considerations in order to deliver the best possible experience to clients. Acoustics affects quality of life, an objective of LEED Certification. The USBGC is currently restructuring the guidelines to include acoustics in the overall LEED Certification process. This course is an excellent starting point to understanding acoustics (and how to profit from this knowledge), as well as prepare for the 300 level CEDIA courses on this subject.

ESD036 Surround Sound Technologies

Catalog #: ESD036-15, Thursday: 3:00 PM - 4:30 PM

CEU Value: 0.75

Instructor: John Dahl, THX, Ltd. – CCI

Location: B303

Struggling to explain the differences between Dolby Digital and DTS in a language that clients can understand? Receive calls from clients wanting to know why all of the sound from their CD is coming out of their center channel? This course will discuss all the Dolby surround technologies, DTS surround technologies, DVD-Audio, and SACD, as well as future releases. In addition, participants will discuss how to explain this information to clients so that they can better understand what process to use and when.

ESD037 ZigBee Technology for Automation and Energy Management

Catalog #: ESD037-10, Friday: 1:00 PM - 2:30 PM

CEU Value: 0.75

Instructor: Benno Ritter, ZigBee Alliance

Location: B308

This class provides an overview of the ZigBee Alliance and its mission. It addresses the basic functionality delivered by the standard, where it fits in the wireless arena, and next steps for the ecosystem of companies creating applications for use in home, commercial, and industrial markets. Presenter Benno Ritter will discuss why ZigBee is uniquely positioned to enable Automatic Metering Infrastructure and the Smart Grid, offering energy utilities and their customers with the ability to control and manage their energy consumption. He will present insight on major corporations' plans to offer new ZigBee products and services, as well as information on how companies are implementing ZigBee technology to save money, improve reliability, and offer new services. Because ZigBee technology is expected to be embedded in a wide range of products and applications around the world, it is important that residential integrators are educated and prepared to adopt this innovative technology.

ESD041 Lighting Design - The Finishing Touch on a Great Theater Project

Catalog #: ESD041-10, Friday: 1:00 PM - 2:30 PM

Catalog #: ESD041-11, Saturday: 11:00 AM - 12:30 PM

CEU Value: 0.75

Instructor: Theo Kalomirakis, TK Theaters

Location: Friday - B202, Saturday – B216

Lighting may be the most misunderstood ingredient in home theater design. It is broadly considered a functional element even though there is a big difference between a functionally-lit room and an aesthetically-lit one. The purpose of this course is to examine lighting design as a means of showcasing and bringing attention to the various architectural and design elements in the room and enhancing the cinema experience. At the conclusion of this course, participants should be able to:

- Understand how the various light sources are divided into separate loads
- Implement separate lighting scenes for aesthetics and convenience
- Explain the differences between various types of light sources
- Use light as paint to accentuate design details inside a room
- Develop insights into using light to turn a bland looking space into an exceptional looking one

Join one of the top theater designers in the world for a class that will take the aesthetic appeal of your theaters to the next level!

ESD043 High Definition 3DTV: What You Must Know

Catalog #: ESD043-7, Thursday: 2:00 PM - 3:30 PM

Catalog #: ESD043-6, Saturday: 9:00 AM - 10:30 AM

CEU Value: 0.75

Instructor: Michael Heiss, M. Heiss Consulting – CCI

Location: Thursday – B304, Saturday – B216

This course covers the most current information regarding high definition 3DTV. This course will examine formats, compression types, passive and active glasses, and content types. At the conclusion of this course, participants should be able to:

- Describe the differences between various formats, such as checkerboard, over-under, and left-right
- Identify the advantages and disadvantages to both active and passive glasses formats
- Explain the types of design considerations needed to account for 3D within a home theater
- Identify where 3D is going in the next few years, including when we can expect 4K, 3D and glasses free 3D (stereoscopic)

ESD051 Design and Engineering Documentation Using Microsoft Visio Workshop

Catalog #: ESD051-11, Wednesday: 9:00 AM - 6:00 PM

CEU Value: 3.5

Instructor: David Tkachuk, Symbol Logic – CCI

Location: B202

Installing your whole-house electronic systems right-the-first-time is crucial for survival in this industry. This can only be accomplished with the proper design and engineering plans in-hand before leaving for the job site. But creating essential documents such as the floor plan layout, block diagram, wire schedule, schematic diagrams and equipment rack Layouts that are fully detailed, yet easy to read, is no easy task. This one-day, hands-on workshop taught by industry veteran Dave Tkachuk will teach you all of the ins and outs of Visio necessary to create these critical documents. Whether you're from a small or large company, a designer or integrator, this workshop will help improve your electronic design, engineering and drawing skills and help you better understand the design and engineering process from start to finish. Included in the registration fee is the Visio Reference Guide for System Integrators, custom Visio design symbols and tools, example spreadsheets, diagrams and more: a \$395 value. This workshop is intended for those who have some experience with Visio. Full workshop flier is available at www.symbollogic.com/home.html

Key Topics:

- How to create the Floor Plan Layout, showing the physical locations of room devices, equipment racks and head-ends
- How to create the Block Diagram, showing the overall connectivity of the entire system, including all subsystems, and how it can generate the pre-wire schedule and other reports
- How to create the Schematic Diagrams, showing signal flow and detailed head-end and room wiring
- How to create Equipment Rack Layouts, showing the correct placement of rack mounted equipment and millwork dimensions for cabinet and wall openings

This workshop is intended for anyone looking to improve their ability to produce accurate and easy to understand schematics and other essential project diagrams for any small to very large integrated system. Laptops running Visio 2007 Professional (or later) and Excel are strongly recommended.

Instructor website and email: www.symbollogic.com, davet@symbollogic.com

ESD055 Understanding Sustainable Building Programs and Certifications

Catalog #: ESD055-11, Friday: 3:00 PM - 4:00 PM

CEU Value: 0.5

Instructor: Luke Morton, Fergus Garbor Group

Location: B302

The one sector of the residential building industry that is currently experiencing solid growth is the design and construction of sustainable homes. There are currently two dominant national programs that certify a home's true environmental impact: the United States Green Building Council's LEED Certification and the National Association of Home Builders' Green Building Certification. There are many other state, regional, and local programs. This course is an introductory discussion of each program and where ESCs can make a direct impact on a project. At the conclusion of this course, participants should be able to:

- Compare and contrast multiple certification programs
- Identify areas within each certification program where their company can make an impact on a project
- Understand what their company's participation would be on a certification project team

ESD068 Lighting Control Design Basics

Catalog #: ESD068-13, Wednesday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: David Weinstein, Lutron

Location: B304

This course will lay the foundation of lighting control system design. Topics covered will include calculating electrical loads, managing natural and artificial light, and understanding the fundamentals of illumination, fixtures, motorized window treatments and loads, and lighting control system hardware and software basics.

ESD075 Intensive Home Theater Acoustics Workshop

Catalog #: ESD075-11, Wednesday: 8:00 AM - 6:00 PM

CEU Value: 4.5

Instructor: Anthony Grimani, Performance Media Industries, Ltd.

Location: B216

This full-day workshop is the most comprehensive home theater acoustics course in the industry. Attendees will cover the basic theory and carry through to the full acoustic design process. Each attendee will receive the 5.1 Audio Toolkit test and calibration DVD and an advanced copy of the book on home theater audio calibration written by Anthony Grimani. Don't miss the opportunity to learn from the man who developed the Dolby Surround and Home THX programs.

Learning Objectives:

- The importance of acoustical engineering
- The step-by-step acoustical design process
- Dimensioning a room
- Sound isolation practices
- Placing acoustical treatments in the room
- Tuning the electro-acoustic system

This workshop is recommended for home theater designers and technicians. It covers all aspects of acoustics relevant to high performance home theater design and construction. Meals not provided.

Instructor website: www.pमितd.com

ESD080 Home Theater Design Essentials for Integrators

Catalog #: ESD080-19, Saturday: 8:00 AM - 5:00 PM

CEU Value: 4

Instructor: Sam Cavitt, Media Environment Design, Inc. – CCI

Location: B217

Nothing takes the place of real-world experience. This is especially true in the world of high-end, home theater design and project management. Smart integrators recognize the value of these skills and the benefit of entering this rewarding market segment. Each project has unique characteristics that require knowledge, skill, and, most importantly, experience. This full-day home theater design and project management workshop delivers this essential information including:

- Glossary of Terms
- Acoustic Principals
- System Design
- Construction Principals
- Collaboration Methods
- Design Techniques and Tools
- Project Management

Section I of the course will examine the subjects listed above. The course literature for Section I of this class will serve as a valuable reference guide for the participant. Section II will provide all new case studies, including the 2008 CEDIA Best Large Home Theater Award Winner!

Section II will consist of three, in-depth case studies. Real-world experience is conveyed to the participant as the instructor walks through the concept, design, construction, management, and completion of three unique theater projects.

Learning Objectives:

- Establish value of home theater design and how to communicate that value to clients and other trades
- Analysis and configuration of home theater rooms for performance
- Acoustical analysis and specification for home theater rooms
- Integration of functional and performance characteristics with aesthetics
- Application of tools and techniques in real world scenarios

Who Should Attend:

Experienced A/V installers, designers, engineers, sales designers, and company owners who are involved in selling, designing, and/or project managing high-performance media rooms and home theaters. Instructor websites: www.paradisetheater@medesign.tv

ESD091 Future Technologies - The Inside Scoop from Silicon Valley

Catalog #: ESD091-9, Friday: 9:00 AM - 12:00 PM

CEU Value: 1.5

Instructor: Rich Green, Rich Green, Ink – CCI

Location: B303

This course is about the technologies that will influence business decisions three to five years from now. Topics will be esoteric and advanced and cover what lies beyond the emerging technologies read about in the current trade press. For a forward-thinking business leader, now is the time to launch a strategy that will survive the current economic climate by embracing opportunities for new technology applications in the home. Topics will include future user interfaces, broadband Internet technologies, home networking, wireless devices, digital media distribution, intelligent agents, and exciting developments in interactive multimedia spaces. Survival will be in adding value to the customer experience. To add value, residential electronic systems contractors must understand how these technologies will actually enhance the lives of clients. Participants will hear the inside scoop on future technology and business scenarios from interviews with leading Silicon Valley CEOs, venture capitalists, and researchers.

ESD093 Using 2.35:1 Anamorphic Lens Systems to Deliver the True Widescreen Experience

Catalog #: ESD093-4, Thursday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: John Schuermann, Panamorph Sales Management

Location: B303

Help customers get rid of the dreaded “black bars” on widescreen movies and bring profitability back into front projection theaters. Anamorphic lens systems are becoming a very large portion of the front projection market as they are able to recreate the kind of immersive widescreen experience found in a commercial theater and do away with the much despised “black bars.” They also allow CEDIA dealers to bring back some profitability to high-end and projection system sales since properly setting up and programming an anamorphic system requires programming expertise and installation skill. In this fun, fast-paced class, participants will learn how these systems work, when to use a curved vs. a flat screen, what video processing modes are required, what projector throw ratios are optimal, basic projector/lens setup, and everything needed to know how to get started on 2.35:1 anamorphic lens installs. Participants also learn about motion picture aspect ratios, the history of widescreen cinema, how anamorphic lenses work, and, most importantly, how to properly set up a full anamorphic projection system in a showroom or customer's home.

ESD096 Heiss/Green PRE-GAME

Catalog #: ESD096-6, Thursday: 8:30 AM - 10:00 AM

Instructor: Michael Heiss, M. Heiss Consulting - CCI & Rich Green, Rich Green, Ink. – CCI

Location: B405/406a

Michael Heiss and Rich Green are both formidable voices of what is going on in our industry. Both Heiss and Green have packed rooms for many years at EXPO with people eager to hear their opinions of what is coming down the pipeline in the next five to 15 years. They are both experts and widely respected observers of what is on our horizon. CEDIA is once again offering its membership an opportunity to hear from these two on the same stage. During our Pre-Game show, our two commentators will offer their own take on CEDIA EXPO 2010, including:

- What to look for
- Who's pulling out all the stops with a new technology—and who isn't and why
- What rivalry will heat up and which will be resolved
- What will be a hit and a miss
- Who will throw the winning ball
- Who will take home the trophy from CEDIA EXPO 2010

ESD097 Heiss/Green POST-GAME

Catalog #: ESD097-5, Saturday: 4:00 PM - 5:30 PM

Instructor: Michael Heiss, M. Heiss Consulting - CCI & Rich Green, Rich Green, Ink. – CCI

Location: B405/406a

Heiss and Green will follow up their Pre-Game with a Post-Game show to see how they fared with their predictions, sharing any surprises they didn't expect, and announcing who was the Most Valuable Player of the show. Be sure not to miss these fun and free sessions!

ESD098 Practical Guide to Home Theater Audio Workshop

Catalog #: ESD098-4, Wednesday: 8:00 AM - 5:00 PM

CEU Value: 4

Instructor: Joel Rosenblatt, A/V Marketing Consultants – CCI

Location: B305

Surround sound is half the home theater experience. But, truth be told, thousands of systems have been installed with less than terrific speaker placement, incorrect set up, and generally mediocre sound system design. In most cases it's not the installers fault, they simply haven't had easy access to the useful information they need. Well, here's your chance to find out. ESD098 has been developed and refined over 4 years by a 41-year industry veteran. Every single piece of information has been carefully chosen to help you in designing, installing and setting up simple to advanced surround sound systems. Rest assured that you'll be exposed to so much useful information that your head will spin. The primary goal behind developing this course was to give you as many useful, practical and profit-generating tools as possible. Tools that will enhance every home theater you install, no matter the room, the equipment or the client's restrictions.

At the end of the course you will receive an SPL meter, CD containing useful software and tools, and a Genuine Certificate of Achievement suitable for framing or dart targeting. Most importantly, you'll be better prepared to design and install killer surround sound systems while creating wildly ecstatic clients to boot!

Key Topics:

- Learn how sound works and speakers interact with a room
- Finally, a clear and simple explanation of those troublesome standing wave thingies
- Gain a clear understanding of the equipment required for quality home theater audio, including deciphering those cryptic specifications
- Help in Qualifying your client
- Lucid explanations (features/benefits) of the myriad Dolby and DTS surround formats
- General goals of Home Theater and the surround experience
- General HT design, installation, and set-up skills

This course will be beneficial for any designer, installer or salesperson involved in the development and installation of home theaters.

www.avmarketingconsultants.com



Core Curriculum

ESPM302 Project Communication Process

Catalog #: ESPM302-10, Thursday: 10:00 AM - 1:00 PM

CEU Value: 3

Instructor: Keith Cottrell, Electronics Design Group – CCI

Location: B407

The purpose of this course is to create an organized framework for effective communication flow through a structured documentation process. Participants will learn how to effectively integrate documentation into a project work cycle, enhance communication within a company and between external stakeholders, and increase project efficiencies. At the conclusion of this course, participants should be able to:

- Create, evaluate, and update a project documentation process
- List examples of communication techniques
- Organize effective project meetings
- Identify effective methods of communication and applicable milestones within the residential electronic systems industry
- Describe the key communication handoff points of a custom installation

Required prerequisite: ESPM101 Recommended prerequisites: All 200 level ESPM courses

ESPM306 Completing a Project: The Last 5 Percent

Catalog #: ESPM306-9, Friday: 3:00 PM - 4:30 PM

CEU Value: 0

Instructor: Joe Wallace, Peak-to-Peak Systems, Inc. – CCI

Location: B313

The purpose of this course is to discuss common problems with completing projects and the techniques used to overcome them. At the conclusion of this course, participants should be able to:

- Clearly state the goal of a project and how the completion of the goal (scope) will be defined
- Define all deliverables and the sign-off criteria for the completion of a project
- Identify factors at each stage of a project that will help/hinder completion
- Manage stakeholder expectations regarding the completion of milestones and deliverables
- Create completion checklists and other documentation that will improve the timely and in-budget completion of all projects

Required prerequisite: ESPM101 Recommended prerequisites: All 200 level ESPM courses

*Formerly known as ESPM409: Completing a Project: The Last 5 Percent

ESPM401 The Art of Managing Home Cinema Projects

Catalog #: ESPM401-8, Saturday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Keith Martens, Audio Images (Henry's Audio Visual Solutions) – CCI

Location: B408

The purpose of this course is to aid in project management skills development for those involved in the creating and implementing residential spaces dedicated to high quality home theater and media presentation spaces. This course is recommended for individuals responsible for the design and/or management of home cinema projects. To benefit from this course, participants should have advanced knowledge of project management techniques, experience in the discipline, and the ability to demonstrate a high level of working knowledge required of the total home theater experience. This course explores and defines the role of the various contributors and presents project management concepts for these highly specialized projects. At the conclusion of this course, participants should be able to:

- Outline the scope of a home cinema project in order to establish the parameters of the project
- Identify external resources (and roles and responsibilities) that can benefit home cinema projects in order to assess the scope of work
- Create the project plan by using the project team's knowledge and experience to fully document the system specifications within the targeted budget
- Monitor and track deliverables, such as equipment orders and installation
- Assess the impact of change orders on the home cinema design and implement the proper design modifications

Required prerequisite: ESPM101 Recommended prerequisites: All 200 level ESPM courses, ESPM302, ESPM304, ESPM306

ESPM403 The Art of Managing a Whole-Home A/V System

Catalog #: ESPM403-8, Saturday: 10:00 AM - 1:00 PM

CEU Value: 3

Instructor: Dean Callis, Paragon Technology Group – CCI

Location: B404

The purpose of this course is to explore the pitfalls and potential risks involved in whole-home A/V projects. To benefit from this course, participants should have advanced knowledge of project management techniques, experience in the discipline, and the ability to demonstrate a high level of working knowledge required of the whole-home A/V experience. At the conclusion of this course, participants should be able to:

- Outline the scope of a whole-home A/V project in order to establish the parameters of the project
- Identify all internal and external resources required to successfully complete the project
- Create the project plan by using knowledge of potential wiring and equipment set-ups in order to fully document all specifications
- Monitor and track project progression by work package (such as pre-wire and trim) against project baseline
- Assess the impact of change orders on layout and wiring design and implement the proper design modifications

Required prerequisite: ESPM101 Recommended prerequisites: All 200 level ESPM courses, ESPM302, ESPM304, ESPM306

ESPM404 The Art of Managing Security Projects

Catalog #: ESPM404-8, Thursday: 1:00 PM - 4:00 PM

CEU Value: 0

Instructor: Dean Callis, Paragon Technology Group – CCI

Location: B408

The purpose of this course is to focus on how to develop and deliver a security system installation, as well as how to control a security system project, manage changes, and track deliverables and costs. To benefit from this course, participants should have advanced knowledge of project management techniques, experience in the discipline, and the ability to demonstrate a high level of working knowledge required of residential security. This course explores and defines the roles of various participants, highlighting possible risks involved with installations of home security systems. At the conclusion of this course, participants should be able to:

- Establish a project schedule for a security system installation based on the requirements of a home security system installation
- Develop a schedule management plan that establishes how a security system project will be managed and controlled
- Monitor and track the work of internal and external resources against the project baseline
- Assess the impact of change orders on the project
- Successfully close out the project

Required prerequisite: ESPM101 Recommended prerequisites: All 200 level ESPM courses, ESPM302, ESPM304, ESPM306

ESPM406 The Art of Managing Residential Data Network and Phone System Projects

Catalog #: ESPM406-7, Friday: 1:00 PM - 2:30 PM

CEU Value: 1.5

Instructor: Joe Wallace, Peak-to-Peak Systems, Inc. – CCI

Location: B313

The purpose of this course is to aid in the development of project management skills for those involved in the development and implementation of residential data and phone systems. To benefit from this course, participants should have advanced knowledge of project management techniques, experience in the discipline, and the ability to demonstrate a high level of working knowledge required of residential data and phone systems. This course explores and defines the roles of various participants, presenting management concepts for these highly specialized projects. At the conclusion of this course, participants should be able to:

- Outline the scope of the project using a formal evaluation/survey process in order to establish the parameters
- Identify external resources (and roles and responsibilities) in order to assess the scope of work
- Create the project plan using relevant technical knowledge to fully document the system specifications within the targeted budget
- Monitor and track work of all resources against project baseline while assessing the impact of change orders on the design
- Successfully close out a project

Required prerequisite: ESPM101 Recommended prerequisites: All 200 level ESPM courses, ESPM302, ESPM304, ESPM306



Electives

ESPM032 Taking Responsibility: How to Be Proactive Not Reactive Workshop

Catalog #: ESPM032-4, Wednesday: 8:00 AM - 5:00 PM

CEU Value: 4

Instructor: Keith Cottrell, Electronics Design Group – CCI

Location: B408

This interactive workshop was designed to help project managers become more effective in meeting, conquering, and transcending challenges, thus becoming true leaders in their personal and professional lives. Participants will learn to live from their vision and purpose rather than being reactive to circumstances, events, and other people. They will learn how changing their personal behavior and acting from their priorities will enable them to coach, facilitate, and empower rather than control and direct. This workshop will also discuss ways to improve interpersonal and face-to-face communication skills, giving project managers the tools to collaborate, make decisions, and solve problems more effectively.

Learning Objectives:

- Learn the meaning and nature of personal responsibility
- Understand the power and freedom that comes from accepting responsibility
- Understand the difference between the important and the urgent, as well as how to schedule time for the important
- Learn five different conflict management styles
- Learn the basics of face-to-face communication
- Improve active listening skills

ESPM033 The Art of Project Documentation

Catalog #: ESPM033-3, Thursday: 9:00 AM - 12:00 PM

CEU Value: 2

Instructor: Keith Martens, Audio Images (Henry's Audio Visual Solutions) & Ron Callis, Firefly – CCI

Location: B406b

Custom designed and installed systems have a project lifecycle. This seminar will review each phase of the project lifecycle and focus on the implementation phase. Participants will gain a better understanding of the different types of documentation that can be created to enhance communication and process flow. Samples of all discussed documentation will be provided.

ESPM035 Understanding the Value of Project Management: A Peer Driven Open Forum

Catalog #: ESPM035-5, Wednesday: 3:00 PM - 6:00 PM

CEU Value: 1.5

Instructor: Ryan Appel, Ensemble Custom Solutions, Inc. – CCI

Location: B406

How are other project managers in this industry faring? How do project managers keep their projects on schedule? Do other project managers face the same challenges on a daily basis? This peer-based open forum gives participants the opportunity to network with peers, discuss challenges, and share project management strategies and ideas. This two-hour forum offers a great opportunity for CEDIA members to meet and network with their peers in the industry. Project managers and certified PMI Project Management Professionals will share some of their success stories (and horrors) with participants. Join in the knowledge-sharing and meet others who are valuable resources in the industry.



Core Curriculum

EST105 Cable and Connector Properties *Hands On*

Catalog #: EST105-19, Wednesday: 1:00 PM - 3:30 PM

CEU Value: 2.5

Instructor: Paul Eisenhauer, Reliable Media Solutions, Inc. – CCI

Location: B214

The purpose of this hands-on course is to educate participants about the types of cable and connectors, and their industry standards used in low-voltage installations. Topics covered in this course include cable type, construction, impedance, attenuation, and proper termination. At the conclusion of this course, participants should be able to:

- Compare and contrast the various cable and connector types, their performance specifications, and applications
- Analyze cable construction and how it impacts system performance
- Evaluate cable performance and interface by attending to signal quality, high-voltage proximity, balanced/unbalanced lines, and bandwidth

EST108 Basic Math and Terminology for Technicians

Catalog #: EST108-3, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Zach Holcomb, Holcomb Audio Visual Technologies – CCI

Location: B408

The purpose of this course is to provide an introduction to some of the basic math skills and industry terms that an entry-level EST will need as a foundation for a career in residential A/V and automation. The course will familiarize technicians with field-related terminology that they are likely to hear and use as they work in the industry. Also covered will be basic algebraic and geometric problems, and how to apply them to electrical and electronic theory in on-the-job situations. Participants will learn to work with Ohm's law, electrical theory in regards to signal quality, as well as English and metric units of measurement that directly relate to the residential electronic systems industry. At the conclusion of this course, participants should be able to:

- Identify and relate to industry terminology found within the first year as a field technician
- Apply basic mathematical and geometric formulas on jobsites, such as locating speakers, displays, projectors, and estimating cable lengths
- Utilize electrical theory to calculate signal integrity over various cables
- Demonstrate Ohm's law relationships between voltage, current, and resistance

Formerly known as EST108: Math for Installers

EST200 Electronic Systems Technician Workshop

Catalog #: EST200-21, Thursday: 8:00 AM - 4:00 PM

CEU Value: 5

Instructor: Frank White, StayTuned Inc. & Steve Rissi, CEDIA Region 2 – CCI

Location: B214

This full-day workshop is designed for ESTs with 18-24 months of experience. The goal of the course is to broaden knowledge and help prepare the participant for real-world job challenges in areas such as home theater layout and installation, system verification, and professional behavior. Course participants should possess awareness of basic installation techniques and audio/video signals and their uses. Participants are encouraged to take additional EST200-level CEDIA courses after completing this workshop. At the conclusion of this course, participants should be able to:

- Apply the tenets of proper professional behavior, jobsite safety, and adherence to codes
- Explain various advanced installation techniques that can be applied to either new construction or retrofit/remodel jobs
- Describe principles of home theater layout and installation, including speaker placement, display mounting, and component installation
- Discuss verification of an A/V system, including documentation, client instructions, and component performance

EST202 Introduction to Sub-Systems

Catalog #: EST202-24, Wednesday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Frank White, StayTuned Inc. – CCI

Location: B314

The purpose of this course is to introduce participants to the basic components and configurations of electronic sub-systems. Participants will examine HVAC, lighting, security, and other sub-systems, as well as learn to detect design flaws and perform corrective actions on these sub-systems. At the conclusion of this course, participants should be able to:

- Define basic HVAC components and determine their best configuration in an integrated home
- Explain in-house wiring required to operate lighting control systems
- List basic security, sprinkler, and communication systems and outline their optimum configurations
- Specify the options for settings, user interfaces/controls, and the integration of each sub-system

EST207 IR Control of A/V Components

Catalog #: EST207-10, Friday: 10:00 AM - 11:30 AM

CEU Value: 1.5

Instructor: Robert Ridenour, Niles Audio Corporation – CCI

Location: B212

This course instructs participants about infrared (IR) technology used to control A/V systems and components. Topics include IR codes, commands, macros, and anchored sequences for older components. Participants will also learn processes for programming and testing components, and how IR commands may be repeated and converted into radio frequency. At the conclusion of this course, participants should be able to:

- Identify and explain IR commands and codes
- Build and use macro commands
- Understand sources of IR interference
- Determine best methods for learning IR codes

EST211 Video Display Technologies for Technicians *Hands On*

Catalog #: EST211-1, Thursday: 9:00 AM - 11:30 AM

CEU Value: 2.5

Instructor: Mario Leone, Electronic Solutions Co. – CCI

Location: B212

The purpose of this hands-on course is to educate participants on current display technologies, describe their resolution and contrast ratio, and explain their compatibility with standard driver sources. This course instructs participants on display mounting considerations and techniques including power, wiring, safety precautions, height, viewing angle, and component neatness. Topics include how to account for human and environmental factors impacting the design and placement of video displays and creative solutions to challenging video display situations. At the conclusion of this course, participants should be able to:

- Describe the human and environmental factors to consider in the design, selection, and installation of video display systems
- List available display types (CRT, LCD, Plasma, and DLP) and identify the resolution performance of each
- Justify display selection based on criteria such as resolution, size, black levels, motion artifacts, altitude, and light
- Explain how resolution and contrast ratio impacts the choice of display driver
- Explain mounting considerations and techniques for display installation

*Formerly known as EST251 Video Display Technologies for Installers

EST214 Residential Telephony Infrastructure and Equipment *Hands On*

Catalog #: EST214-1, Wednesday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: Dave Shafer, Shafer Custom Systems – CCI

Location: B212

The purpose of this hands-on course is to instruct participants about installing and maintaining residential telecommunications infrastructure and equipment. Topics covered include FCC regulations, industry standards, cabling types, termination procedures, and proper testing. Participants will learn when to consider proposing a communication system. This course also covers the benefits, basic options, and points of caution regarding land-line phones, VoIP, DSL, and CATV. At the conclusion of this course, participants should be able to:

- List applicable FCC regulations and industry standards
- Explain key points from TIA-570-B residential standard
- Describe and demonstrate proper termination procedures
- Determine minimum testing requirements
- Analyze interference and connectivity issues
- Add value to projects

*Formerly known as EST302: Installing Telephone Systems, Infrastructure and Equipment

EST225 Audio Technologies for Technicians

Catalog #: EST225-1, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Greg Mascherino, Aurant – CCI

Location: B202

The purpose of this course is to educate participants on current audio technologies and formats. It will explain how audio signals are created and reproduced including analog and digital formats and surround sound technologies. It will also offer instruction on loudspeaker basics, room acoustics, and distributed audio systems.

At the conclusion of this course, participants should be able to:

- Identify the essential components of an audio system and describe how they are used
- Understand how loudspeakers work and explain the application of different types
- Describe the key concepts of surround sound technologies, including recommended practices for speaker layout
- Discuss methods of distributing audio throughout the home
- Explain the basic principles of room acoustics

EST228 Introduction to Central Vacuum Systems

Catalog #: EST228-3, Wednesday: 2:00 PM - 3:30 PM

CEU Value: 1.5

Instructor: Greg Mascherino, Aurant – CCI

Location: B313

The purpose of this course is to provide participants with an overview of residential central vacuum systems. Many electronic systems contractors are now offering this popular, easy to install, product category to add to their bottom line. This course will discuss fundamental central vacuum system features, components, design, and installation practices. At the conclusion of this course, participants should be able to:

- Explain what a central vacuum system is and how it works
- Identify the components and features of a typical system
- Design and lay out a basic residential system per accepted industry standards
- Apply fundamental installation techniques, using the appropriate tools and materials

EST233 Networking for Technicians *Hands On*

Catalog #: EST233-8, Thursday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: Dave Shafer, Shafer Custom Systems – CCI

Location: B212

The purpose of this hands-on course is to instruct participants on current Ethernet cabling standards and practices. This course will provide knowledge on how to produce a standards-compliant, Ethernet cabling infrastructure using effective installation, testing, and troubleshooting techniques. At the conclusion of this course, participants should be able to:

- Identify Ethernet cabling components and infrastructures, including cables, outlets, connections, and panel types
- Identify and describe the bandwidth requirements for installed twisted pair cable
- Describe current Ethernet cabling standards and practices
- Explain installation practices for Ethernet cables and components
- Determine correct termination procedures
- Perform proper component and system testing procedures

*Formerly known as EST233: Ethernet Cabling Practices

EST234 Communication Links for Technicians

Catalog #: EST234-4, Saturday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Ian Bryant, Advanced Coding Concepts – CCI

Location: B204

The purpose of this course is to instruct participants on identifying, testing, and modifying data communication links. The course will explain control and communication protocols and structures, installation standards, physical layer specifications, diagnostics, and troubleshooting techniques. At the conclusion of this course, participants should be able to:

- Identify data communication links
- Test and modify data communication links
- Explain the basics for control and communication protocols and structures
- Select appropriate diagnostic equipment and testing methods
- Apply basic troubleshooting techniques

EST243 IP for Technicians *Hands On*

Catalog #: EST243-2, Thursday: 1:00 PM - 5:00 PM

Catalog #: EST243-1, Saturday: 9:00 AM - 1:00 PM

CEU Value: 4

Instructor: Peter Aylett, CEDIA Region 1 – CCI

Location: Thursday – B215, Saturday B212

The purpose of this hands-on course is to provide a foundation for understanding Internet Protocol (IP). It is appropriate for both beginners and individuals looking to formalize and increase their IP networking knowledge base. With the vast majority of sub-systems now having the ability to be converged over an IP network, this is an important topic for which ESTs need a solid foundation. At the conclusion of this course, participants should be able to:

- Discuss the advantages and importance of the growth in IP networking
- Explain common network protocols such as TCP, UDP, IP, DHCP, DNS, and NAT
- Select, install, and configure consumer routers for wired environments
- Create and implement IP addressing schemes for connected network devices (computers, AV, lighting control, etc.)
- Create system documentation for IP networks

Recommended prerequisite: EST233

*Formerly known as EST313: Principles of IP Networking

EST253 Wireless Network Technologies *Hands On*

Catalog #: EST253-1, Thursday: 9:00 AM - 1:00 PM

CEU Value: 4

Instructor: Shawn Lemay, Sound & Theater

Location: B203

The purpose of this hands-on course is to instruct participants on the design and installation of 802.11x wireless networking equipment. Almost all of the systems that are installed have some kind of wireless networking component and, while wireless can be made to work reliably, it requires a specific skill set and a deep knowledge of the tasks involved. If the right procedures are not followed, the system will not work properly—a scenario that has been experienced by the vast majority. This course will teach participants about the fundamentals of designing, installing, and configuring an 802.11x network so that it will meet the required performance parameters. At the conclusion of this course, participants should be able to:

- Describe current 802.11x wireless network technologies and explain their benefits
- Select the appropriate 802.11x wireless networking product to meet the performance requirements
- Perform a basic onsite wireless survey and interpret the results
- Configure 802.11x wireless devices with the correct SSID, channel selection, encryption standard and security settings
- Perform basic troubleshooting on 802.11x networks

Recommended prerequisite: EST233

EST304 Power Quality and Conditioning

Catalog #: EST304-15, Thursday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Ken Erdmann, Erdmann Electric, Inc. – CCI

Location: B215

The purpose of this course is to instruct participants about proper power conditioning for electronic systems, the causes of electrical noise and surges, and essential grounding requirements. Participants will engage in real-life scenarios requiring their examination and resolution. This course also teaches participants appropriate methods of effective power conditioning and how to handle phase and polarity issues. At the conclusion of this course, participants should be able to:

- Diagnose and alleviate the sources of electrical noise and surges in circuits
- Determine the impact and remedy for power quality problems such as over/under voltages, brownouts, spikes, and sags
- Demonstrate the use of code-approved power conditioning methods
- Implement grounding requirements pertinent to voltage regulators, surge protectors, and uninterrupted power supplies

EST306 Troubleshooting, Repair, and Preventive Maintenance

Catalog #: EST306-16, Saturday: 1:00 PM - 2:30 PM

CEU Value: 1.5

Instructor: Eric Lee, Integrated Control Experts – CCI

Location: B215

The purpose of this course is to instruct participants on the five steps of successful troubleshooting. Participants will apply these five steps to solve five real-life problem scenarios. This course also includes solutions to typical audio and video ground loop problems. At the conclusion of this course, participants should be able to:

- Implement the five steps of successful troubleshooting: analyze, diagnose, repair, test, and prevent
- Predict common repeatable and non-repeatable breakdown scenarios
- Determine corrective solutions to audio and video ground loops

EST308 Retrofit Installation

Catalog #: EST308-28, Thursday: 2:00 PM - 5:00 PM

Catalog #: EST308-27, Friday: 9:00 AM - 12:00 PM

CEU Value: 3

Instructor: Steve Standridge, Media Design Company – CCI

Location: Thursday - B315, Friday - B204

The purpose of this course is to explain the three Ps of retrofitting: planning, patience, and practice. This course will cover specific ways to address the challenges of installing equipment and cable in an existing home. This course also includes tips and techniques on how and when to use specific retrofitting tools. At the conclusion of this course, participants should be able to:

- Plan and organize a retrofitting project which minimizes the impact to the client's existing home
- List five standard retrofitting tools and elaborate on how and when to use them
- Describe how and where to use tools for making holes, pulling and locating wire, and making wall openings
- Implement retrofitting techniques in three different construction settings

EST311 Video Set-Up and Calibration *Hands On*

Catalog #: EST311-36, Wednesday: 8:00 AM - 12:00 PM

Catalog #: EST311-35, Thursday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: George Georgiou, Cinetec – CCI

Location: Wednesday – B212, Thursday – B204

The purpose of this hands-on course is to teach participants about video set-up and calibration. Topics in this course include how to identify the types and functions of various video display components and how to adjust and calibrate those components, including basic calibration for brightness, contrast, color, saturation, tint, and setting the proper gray scale. This course will also define video standards and cover the various tools needed to perform calibration. At the conclusion of this course, participants should be able to:

- Identify the types, functions, and categories of video projection components
- List common video compression standards
- Perform video level adjustments to ensure the best possible brightness, contrast, color, and gray scale
- Choose the proper tool or test pattern in order to ensure a properly calibrated display
- Outline the specific steps for video signal set-up and gray-scale calibration

Recommended prerequisite: EST211

EST312 Audio/Video Component Installation *Hands On*

Catalog #: EST312-24, Thursday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: Paul Eisenhauer, Reliable Media Solutions, Inc. – CCI

Location: B203

The purpose of this hands-on course is to instruct participants on how to install audio and video components in a way that considers rack and panel selection, furniture and cabinetry, lift and bracket choice, and room aesthetics. This course also teaches about mounting, weight distribution, active and passive ventilation, and

cabling. At the conclusion of this course, participants should be able to:

- Evaluate the benefits and drawbacks of racks and cabinets used in a variety of settings
- Analyze the component location, cable placement, and ventilation requirements of an installation
- Explain specific display types, mounting options, and appropriate standards

Recommended prerequisites: EST211, EST225

EST325 Audio Set-Up and Calibration *Hands On*

Catalog #: EST325-2, Thursday: 9:00 AM - 1:00 PM

Catalog #: EST325-1, Friday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: John Dahl, THX, Ltd. – CCI

Location: Thursday – B204, Friday – B212

The purpose of this hands-on course is to teach participants how to verify audio functions in a home theater system. This course will also instruct participants how to calibrate audio equipment in a home theater system. At the conclusion of this course, participants should be able to:

- Explain how a good audio system should be designed
- List sound practices for system connections
- Verify a home theater audio system
- Calibrate a home theater audio system

Recommended prerequisite: EST225

*Formerly known as EST305: Audio Set-Up and Calibration

EST333 Advanced Networking *Hands On*

Catalog #: EST333-1, Saturday: 1:00 PM - 5:00 PM

CEU Value: 4

Instructor: Shawn Lemay, Sound & Theater

Location: B204

The purpose of this hands-on course is to expand upon the EST233 and EST243 courses to instruct participants on more advanced IP and Ethernet networking protocols and their configurations. This course will teach comprehension and usage of the various protocols required to implement LANs and remote access, and will address simple design, installation, testing, and troubleshooting techniques. At the conclusion of this course, participants should be able to:

- Define and perform port address translation
- Describe and implement a VPN
- Configure network segmentation using subnet masking and routers
- Describe and identify the proper usage of VLANs and QoS
- Define multicasting/broadcasting, flooding/storm control, RSTP (Rapid Spanning Tree Protocol)
- Determine when a Cisco Certified Engineer is required on a project

Recommended prerequisites: EST233, EST243, EST253

EST350 Networking & IP Workshop for Integrators

Catalog #: EST350-4, Wednesday: 9:00 AM - 5:00 PM

CEU Value: 6

Instructor: Peter Aylett, CEDIA Region 1 – CCI & Ben Komar, Komar Associates, Inc. – CCI

Location: B215

This full-day, hands-on, workshop integrates classroom teaching with practical application to educate participants to a level where they are comfortable working with IP networking product and have the ability to describe what they are doing. This course will take participants with little or no knowledge and educate to a point where they will feel comfortable configuring a router for both LAN and remote access. At the conclusion

of this course, participants should be able to:

- Define an IP addressing scheme for a project
- Configure a device's IP and network information according to the addressing scheme
- Perform basic troubleshooting tasks on LANs (defined by a subnet mask of either 255.255.255.0 or 255.255.0.0)
- Configure a router for Internet access and DHCP across a LAN
- Configure a router with setting for either NAT or VPN functionality to allow LAN access from the WAN
- Determine if their level of proficiency meets the requirements of the task

EST404 User Interface Set-Up

Catalog #: EST404-15, Friday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Robert Gilligan, Engineered Environments

Location: B304

The purpose of this course is to educate participants about the available types of user interfaces, types of communication for user interfaces, and common uses for them. It covers interfaces ranging from simple light switches to programmable thermostats, and security keypads to in-wall touch panels. This course will also teach the correct guidelines for installation of user interfaces, how to customize according to client need, and techniques for diagnosing and correcting interface failures. At the conclusion of this course, participants should be able to:

- List the types of user interfaces and communication methods
- Assemble different user interfaces and select the best application for the client's needs
- Install and successfully customize a user interface to meet the client's needs
- Troubleshoot the most common user interface failures and strategize methods to resolve them
- Produce a training tool for client interface use
- Utilize common installation recommendations and procedures

EST405 Digital and HD Video Distribution

Catalog #: EST405-25, Saturday: 2:00 PM - 5:00 PM

CEU Value: 3

Instructor: Dennis Erskine, Epic Home Cinema – CCI

Location: B301

The purpose of this course is to teach participants an overview of currently popular digital signal interface formats, fundamental requirements for distributing digital video signals, parameters controlling cable performance, run distance extension of digital video signal formats, and an overview of the latest digital format feature sets. At the conclusion of this course, participants should be able to:

- Identify appropriate cables for all variants of DVI, HDMI, or DisplayPort
- Understand distribution options for extending digital signal distance for DVI, HDMI, and DisplayPort interfaces
- Understand the electrical and physical parameters that affect digital signal loss in a distribution system
- Learn how digital and analog video signal distribution differs along with advantages or disadvantages of either mode

Recommended prerequisites: EST105, EST211

EST407 Final System Verification

Catalog #: EST407-18, Saturday: 1:00 PM - 4:00 PM

CEU Value: 3

Instructor: Ian Bryant, Advanced Coding Concepts – CCI

Location: B214

The purpose of this course is to instruct participants on how to test and verify project design compliance. Participants will take part in challenging scenarios which focus on establishing performance standards, verifying performance against a benchmark, and testing A/V systems and various sub-systems for optimal performance quality. Participants will also learn end-user training techniques. At the conclusion of this course, participants should be able to:

- Evaluate project design compliance against performance benchmarks
- Perform adjustments to installed devices for optimal performance quality
- Back up all system software and set-up parameters
- Construct a step-by-step training process for end users

Recommended prerequisites: EST105, EST306



Electives

EST005 Digital Video: Perils and Pitfalls

Catalog #: EST005-14, Friday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: Joel Silver, Imaging Science Foundation – CCI

Location: B309

Digital video is far more problematic than the old analog television system. Errors from mismatched components, interconnects, installation, or poor calibration will severely degrade performance. This course will help participants deliver superb video quality, diagnose digital errors, and demonstrate an ideal new solution for optimum customer service.

EST006 Display Device Calibration

Catalog #: EST006-16, Friday: 1:00 PM - 4:00 PM

CEU Value: 1.5

Instructor: Joel Silver, Imaging Science Foundation – CCI

Location: B309

The most important part of display device calibration is an understanding of why it is necessary. Properly setting up a home viewing system provides a known canvas to those creating the art. This course will look at what defines this canvas, including the role played by the environment of the display. It will define the canvas in technical terms and explain what it should be doing to properly interpret the incoming signal to the best of its ability. Participants will also learn about solid state imagers and how they behave differently than analog display devices. The types of circuits driving the display will influence how they are calibrated. Knowing what to look for in the final picture will help participants navigate through the complications that sometimes accompany these technologies.

EST011 ISF Fundamentals

Catalog #: EST011-11, Monday: 8:00 AM - 5:00 PM

CEU Value: 0

Instructor: Joel Silver, Imaging Science Foundation – CCI

Location: B409

2010 represents a milestone for ISF. HDTV manufacturing partners have advanced HDTV calibration features to the point where advanced video calibration training is needed with the launch of Level II certification. All sessions will now incorporate Level II training for ISF certification. ISF Level I curriculum covers Global Display Standards, 3D mathematical imaging models, front panel controls, two-point color balance, and color management, as well as basic video processing, aspect ratios, the 3x3 component/RGB Matrix, HD and SD decoding, and a step-by-step calibration process. This workshop will also focus on designing and calibrating front projection with multiple screen technologies, and deploying the correct colorimeter for specific applications. ISF Level II is for graduates of ISF Certification and those attending a combined I and II program. Level II provides a hands-on approach to ISF software, with guided solutions for advanced calibration, plus system parameters including: CEDIA/CEA Standards for Video Theaters, EEDID /HDMI verification, 3D color management, multi-point color balance, multiple processing engine optimization, system building diagnosis, Gamma/EOTF, advanced Gamut matching/distortion/manipulation, and other recent innovations.

Learning Objectives:

- Evaluate, learn and verify HDTV's calibration capability
- Optimize video performance for specific room environments and sources
- Match HDTVs to precisely meet multiple standards for content reproduction
- Master ISF workflow software for consistent performance enhancement
- Build a referral-based business through superior installation services

ISF Certification has proven to help successful company owners, HDTV installers, project managers, HDTV manufacturer product managers, and video reviewers sharpen their skills and retain clients.

Instructor website: www.imagingscience.com

EST012 ISF Level II Certification

Catalog #: EST012-11, Tuesday: 8:00 AM - 5:00 PM

CEU Value: 5

Instructor: Joel Silver, Imaging Science Foundation – CCI

Location: B409

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ISF Level I curriculum covers Global Display Standards, 3D mathematical imaging models, front panel controls, two-point color balance, and color management, as well as basic video processing, aspect ratios, the 3x3 component/RGB Matrix, HD and SD decoding, and a step-by-step calibration process. This workshop will also focus on designing and calibrating front projection with multiple screen technologies, and deploying the correct colorimeter for specific applications. ISF Level II is for graduates of ISF Certification and those attending a combined I and II program. Level II provides a hands-on approach to ISF software, with guided solutions for advanced calibration, plus system parameters including: CEDIA/CEA Standards for Video Theaters, EEDID /HDMI verification, 3D color management, multi-point color balance, multiple processing engine optimization, system building diagnosis, Gamma/EOTF, advanced Gamut matching/distortion/manipulation, and other recent innovations.

Learning Objectives:

- Evaluate, learn and verify HDTV's calibration capability
- Optimize video performance for specific room environments and sources
- Match HDTVs to precisely meet multiple standards for content reproduction
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Instructor website: www.imagingscience.com

EST016 Understanding, Finding and Eliminating Ground Loops

Catalog #: EST016-14, Saturday: 9:00 AM - 12:00 PM

CEU Value: 1.5

Instructor: Bill Whitlock, Jensen Transformers, Inc. – CCI

Location: B215

Tired of making costly and unprofessional return visits to fix a hum, buzz, or video hum-bar problem? 'Ground loops' that cause these symptoms are simply a fact of life! They're the unavoidable consequence of connecting signal cables between pieces of equipment—and exist even when the residential electronic systems technician and the electrician have done everything right. This course will explain ground loops and the interference they add to signals, how to perform simple tests to locate the cause, and how to 'break' the loops without creating potentially deadly hazards or legal liability issues. This seminar is taught by one of the country's most eminently qualified experts whose popular seminars and magazine articles have helped thousands dispel the mysteries of grounding and debunk the claims of charlatans. After this course, participants will stop wasting time and money on heroic or bizarre "solutions" that offer only marginal improvements and arm themselves with the practical know-how for the future.

EST033 Fundamentals of Residential Security Systems

Catalog #: EST033-3, Saturday: 1:00 PM - 4:00 PM

CEU Value: 1.5

Instructor: Frank Campbell, Honeywell

Location: B302

This course provides participants with a review of the fundamental concepts and components of residential security systems. It describes their purpose, function, and design. Some of the topics covered in this course include zones, wiring configurations, and communication options. This course also describes various types of security devices that residential installers may encounter, such as magnetic sensors, glassbreak detectors, passive infrared motion detectors (PIRs), and the various types of wire and cabling which are commonly used.

EST051 Media Center Series - Optimizing the PC as an A/V Source

Catalog #: EST051-3, Wednesday: 8:00 AM - 12:00 PM

CEU Value: 2

Instructor: Rick Kalm, cyberManor

Location: B217

In this four-hour course participants will learn many key skills to setting up and optimizing a Windows Media Center PC as a great single room or whole home media server. Participants should have a requisite knowledge of basic PC operation and networking, A/V sources, and connectivity. At the conclusion of this course, participants should be able to:

- Optimize operating performance of a Windows Media Center
- Set-up and optimize A/V performance of a Windows Media Center
- Establish consistent and efficient content management
- Implement different control options for a Windows Media Center

EST053 Media Center Series - Networking for Media Distribution

Catalog #: EST053-3, Wednesday: 1:00 PM - 5:00 PM

CEU Value: 2

Instructor: Rick Kalm, cyberManor

Location: B217

In this four-hour course participants will learn how to configure, test, and diagnose issues associated with setup and optimization of a residential network for digital media distribution. Participants should have a requisite knowledge of PC networking, and basic audio/video connectivity. At the conclusion of this course, participants should be able to:

- Select appropriate components for a home network with a Windows Media Center
- Set-up a home network and Internet connection
- Connect a Windows Media Center to a home network
- Connect extenders to a home network
- Share files and folders through a network
- Troubleshoot and resolve network problems

EST056 HDMI Troubleshooting

Catalog #: EST056-2, Thursday: 2:00 PM - 5:00 PM

Catalog #: EST056-1, Friday: 9:00 AM - 12:00 PM

CEU Value: 1.5

Instructor: Mark Stockfisch, Quantum Data

Location: Thursday – B405/406a, Friday – B304

This course will discuss the root causes of HDMI failures, how to test for compliance, and steps to resolve those problems. At the conclusion of this course, participants should be able to:

- Complete an in-depth discussion of how HDMI and HDCP work
- Identify common HDMI/HDCP failures
- Read and interpret HDMI test specifications



CIO200 Registered Outreach Instructor - Train the Trainer

Catalog #: CIO200-1, Saturday: 8:00 AM - 5:00 PM

CEU Value: 4

Location: A402/403

CEDIA's Registered Outreach Instructor (ROI) program enables CEDIA members to provide education to their local design and build industry partners. This "Train the Trainer" course covers all elements relative to the delivery of quality education and highlights CEDIA Industry Outreach curriculum. CEDIA members who pass the ROI "Train the Trainer" class can present relevant and timely continuing education credit approved courseware to industry partners. This grassroots member benefit will impact the member's ability to position their company to stand out among local competitors. It also allows them to develop new business relationships without the cost of course development or submission for approval through partner associations. This course is open to CEDIA members only.



ESA001 Howdy Partner: How to Collaborate with a Security Integrator

Catalog #: ESA001-1, Wednesday: 9:00 AM - 10:30 AM

CEU Value: 0.75

Instructor: Merlin Guilbeau, Electronic Security Association

Location: B407

What are the traits of high quality security integrator that can work effectively with an electronic systems contractor? Where and how do participants find such companies? What sort of licensing, training, and credentials should participants look for? How do participants qualify their interest in a truly collaborative relationship? What opportunities are there for co-marketing and reciprocal referrals? Participants will get the answers to these and others in this session.

ESA002 The Goose That Lays The Golden Egg: Secrets to Awesome Recurring Revenue

Catalog #: ESA002-1, Friday: 11:00 AM - 12:30 PM

CEU Value: 0.75

Instructor: John Brady, TRG Associates

Location: B406

If participants ever plan to sell their company or seek financing for a merger, acquisition, or organic business expansion, they will soon learn the value of recurring revenue to their business. With a strong recurring revenue base, a company is easily and highly valued. This session will explain the opportunities to generate a variety of recurring revenue streams including alarm and other security system monitoring, service and maintenance contracts, and the reselling of subscription telecommunications services.

ESA003 Going Mobile: New Mobile Connections to Security Systems & Business Info

Catalog #: ESA003-1, Saturday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: John Brady, TMG Resources, Inc.

Location: B409

Perhaps no custom electronics sub-system lends itself quite as readily to mobile interfaces as the security system. This session reviews the state of the market and soon to arrive mobile interfaces to the security systems to help participants offer their customers the latest. It will also look at mobile connections to security account information that can help manage business more effectively.



INCO001 Getting Into the Commercial Business

Catalog #: INCO001-1, Thursday: 10:00 AM - 11:30 AM

CEU Value: 0.75

Instructor: Paul Streffon, InfoComm

Location: B314

Participants will be introduced to the commercial A/V business. Led by an InfoComm instructor, this course will take participants through the basics of commercial business expectations.

Learning Objectives:

- Learn how the commercial markets differ from the residential markets
- Learn about jobsites and working with allied trades
- Learn about client expectations in the commercial market
- Adapt a current business model for the commercial market

INCO002 Selling, Designing, and Installing Commercial A/V Projects

Catalog #: INCO002-1, Friday: 2:00 PM - 3:30 PM

CEU Value: 0.75

Instructor: Paul Streffon, InfoComm

Location: B204

Participants will learn about the four major phases and timeline of a commercial A/V project: program, design, construction, and commissioning and training. Come prepared to discuss how this is similar or different from a residential project.

Learning Objectives:

- Evaluate how form follows function and function follows form
- Discuss how the program phase is crucial for successful design
- Learn the commercial A/V design process and how it affects the building features
- Learn how to work with allied trades in the construction phase
- Learn the importance of project commissioning and client training



**National Center for
Healthy Housing**

EPAHO Hands-On Training for Renovation, Repair, and Painting

Catalog #: EPAHO-1, Saturday: 8:00 AM - 12:00 PM

CEU Value: 0

Instructor: Jeff Gardner, CEDIA – CCI

Location: B312

The focus of this course is to apply skills learned in the Part One training in order to demonstrate hands-on proficiency to work safely in housing with lead-based paint. You will demonstrate how to handle lead-based dust in buildings constructed prior to 1978.

Learning Outcomes:

- Demonstrate practical steps to avoid making dust that may contain lead
- Demonstrate methods to contain any dust you create when disturbing old paint
- Demonstrate how to clean-up dust that is not contained
- Understand the documentation process to confirm accurate work practices.
- Understand work practices that will keep renovators safe and reduce liability exposure.