

## TETP Preconstruction Training for External Partners

Instructor-led and free online self-paced e-learning courses for consultants, contractors, and local agencies.

Instructor-led courses are held between October and May each fiscal year. Click a course title to see upcoming offerings in SOC Learns.

Grouping	Class	What you'll learn	Format	Length	Cost
Engineering / Technical Design	<a href="#">Adobe Sign Training I for CDOT/Consultant</a>	This curriculum explains how to electronically sign basic documents and electronically seal each page of a record set. If you are new to Adobe Sign, if you only need to e-sign basic documents, or if you need to e-seal project record sets and your project is using the old templates for e-sealing every record set page, then you should take Adobe Sign Training I.	Curriculum	2 hours	Free
Engineering / Technical Design	<a href="#">Adobe Sign Training I for Local Agency</a>	This curriculum explains how to electronically sign basic documents and electronically seal each page of a record set. If you are a Local Agency employee and you are new to Adobe Sign, if you only need to e-sign basic documents, or if you need to e-seal project record sets and your project is using the old templates for e-sealing every record set page, then you should take Adobe Sign Training I.	Curriculum	2 hours	Free
Engineering / Technical Design	<a href="#">Adobe Sign Training II</a>	Due to the significant reduction in the time required to set up plans for electronic sealing, in August 2020 the Architects, Professional Engineers, and Professional Land Surveyors (AES) Board approved a CDOT-requested rule change which allows an option to seal only the cover page(s) of a set of drawings. This training explains how to seal only the cover page(s) of a record set. Learners should take Adobe Sign Training II if their project is using the new cover page templates.	E-learning	2 hours	Free

Engineering / Technical Design	<a href="#">Applied Roadway Design</a>	Professional Engineers and Engineers-in-Training with 0-5 years of experience can benefit from this 3-day course where participants apply CDOT's roadway design principles through true-to-life activities and exercises. Attendees will practice using the CDOT Roadway Design Guide, the American Association of State Highway and Transportation Officials Roadside Design Guide, AASHTO's "Green Book", and other resources to develop design criteria and use those criteria in designing a roadway. Computer software programs are not used in the class.	Instructor-led	3 days	\$500
	<a href="#">Basics of Cultural Resources Compliance at CDOT</a>	This one-hour self-paced online course offers an overview of CDOT's process for complying with state and federal historic preservation laws. The course provides valuable insight into how CDOT historians navigate the complex landscape of regulatory compliance as it relates to historic properties. It dives into how this process interfaces with your work in transportation planning, design, and construction.	E-learning	1 hour	Free
Engineering / Technical Design	<a href="#">Bicycle Facility Design Training</a>	The class is designed to teach participants the needs of bicyclists as transportation facility users and how to accommodate them in design. Learners are introduced to the various characteristics of facilities designed for bicyclists, including intersections, multi-purpose paths, roadways, mid-block crossings, and more.	Instructor-led	2 days	Free
Project Management	<a href="#">CDOT Resilience Program</a>	This curriculum consists of documents, resources, and video tutorials that cover the concepts related to the importance of resilience in transportation systems and the tools and best practices used at CDOT to create resilient and sustainable transportation architecture. In addition, it includes an application activity using the CDOT Risk and Resilience Tool. Learners must pass a 10-question assessment to complete the curriculum.	Curriculum	2 hours	Free
Project Management	<a href="#">Construction Budget Management for Project Managers &amp; Engineers</a>	In this online course, Project Managers and Engineers will gain a basic understanding of project construction budgets, resource allocation and the budget management process during each phase of Preconstruction. The course introduces the software programs used to manage different parts of the financial and planning process as well as the Statewide Transportation Improvement Program (STIP), key budget terms, overs and unders, and indirect costs.	E-learning	4 hours	Free

Project Management	<a href="#">Consultant Selection Training</a>	This course is required for anyone looking to participate on a consultant services selection panel. It covers the advertisement and request process, the consultant selection requirements and process, panelist responsibilities and obligations, and how to score forms and procedures. More information about Consultant Selection Training can be found on TETP's Additional Training webpage on codot.gov.	Instructor-led	2 hours	Free
Engineering / Technical Design	<a href="#">Context Sensitive Solutions</a>	This course introduces the basic elements and principles of context sensitive solutions. It gives participants the background and tools to work with a multi-disciplinary team to apply context sensitive solutions to project design.	Virtual Instructor-led	4 hours	\$150
Engineering / Technical Design	<a href="#">Earthwork Basics &amp; Tabulation E-learning</a>	This course provides designers and project managers with instruction and practice on how to use the Earthwork Tabulation Tool to communicate accurate and consistent data to construction contractors. It explains how to identify sources of information for the earthwork tab and enter that information correctly while also exploring best practices for using the spreadsheet to communicate with construction contractors.	E-learning	2 hours	Free
Engineering / Technical Design	<a href="#">Guardrail Systems for Construction Engineers &amp; Inspectors</a>	The Guardrail Systems Field Guide is for CDOT and consultant Construction Engineers and Inspectors. In combination with the Guardrail Systems e-learning course, the Field Guide will help you critically approach the installation, repair or replacement of guardrail end anchorages to ensure all elements are compatible and properly installed and that the basic design is appropriate. For end anchorages, transitions and median terminals used in Colorado, the Field Guide includes drawings, photos and information about the manufacturer, type, installation, MASH compliance, how it works and other general information. The <a href="#">Guardrail Field Guide</a> is available as a downloadable PDF file.	E-learning and Field Guide	4 hours	Free

Engineering / Technical Design	<a href="#">Interchange Planning and Design</a>	This course is for CDOT Geometric Design Engineers and Planners as well as Traffic Engineers and Project Managers involved with design and operations of freeway interchanges. The course covers basic traffic operational and geometric design for various interchange types. Learners will examine the process of efficient study for interchanges including selection of appropriate configuration and development of design and traffic documentation to support decision-making. Students will be trained in the latest tools and techniques for the planning and design of service interchanges. Learners will be given an opportunity to work as part of a group on an interchange reconstruction problem.	Instructor-led	2 days	\$400
Engineering / Technical Design	<a href="#">Lighting Design Guide</a>	The Lighting Design Guide course for Traffic, Design and Project Engineers emphasizes quality lighting for motorists by encouraging effective lighting methods. This includes designing for optimal visibility, selecting proper equipment, locating lighting effectively to minimize glare, increasing uniformity and reducing light pollution. The course provides a lighting guidelines overview and covers topics such as visibility basics, Dark Skies' state law impacts, equipment selection, roadway design guidelines, selected non-roadway design examples and an introduction to CDOT S-standards and lighting specs (sections 613 and 715).	Virtual Instructor-led	2 days	\$250
Engineering	<a href="#">Municipal Separate Storm Sewer System (MS4) Permit Overview</a>	This one-hour course covers the history of water quality in the United States, and the regulations and agencies that govern the MS4 permit. It describes CDOT's role in managing the water quality within its MS4 boundary and covers the seven programs that make up the permit.	E-learning	1 hour	Free
Engineering	<a href="#">MS4 Overview for Engineering: Supplement</a>	CDOT Engineers play a critical role in meeting CDOT's MS4 Permit compliance. Throughout Design and Construction of projects, Engineers are critical in maintaining stormwater compliance. This 30-minute supplemental module provides additional information for the three MS4 programs that CDOT engineers interact the most with to maintain water quality, which include Industrial Facilities, Construction Sites, and Permanent Water Quality.	E-learning	1/2 hour	Free

Engineering	<a href="#">MS4 Overview for Maintenance: Supplement</a>	CDOT Maintenance Staff play a critical role in meeting CDOT's MS4 Permit compliance. This 30-minute supplemental module provides additional information for the five MS4 programs that CDOT maintenance interacts the most with to maintain water quality, including Construction Sites, Permanent Water Quality, Illicit Discharges, Pollution Prevention and Good Housekeeping, and Wet Weather Monitoring programs.	E-learning	1/2 hour	Free
Professional/ Personal Skills	<a href="#">Negotiation Fundamentals E-learning</a>	This course explains what a negotiation is and why negotiation skills are important at CDOT. It also explores the differences between the distributive and integrative approaches to negotiation, the five steps in the CDOT negotiation process, and the importance of documentation in the negotiation process. Lastly, it introduces you to the DISC behavioral styles and the importance of using effective strategies for negotiating with each style.	E-learning	2 hours	Free
Engineering / Technical Design	<a href="#">Pedestrian Facility Design Training</a>	The class teaches learners about the needs of pedestrians as transportation facility users and how to accommodate them in design. Students are introduced to the various characteristics of facilities designed for pedestrians, including intersections, multi-purpose paths, roadways, mid-block crossings, and more.	Instructor-led	2 days	Free
Engineering / Technical Design	<a href="#">Plan Checking</a>	A quality set of contract documents results in competitive bids and fewer disputes or claims. This course is designed to provide a basic understanding of how to improve plan quality by using an appropriate plan checking process. Participants will have the opportunity to review a set of plans that are ready for advertisement and to cross-check them with the plans, specifications and estimates (PS&E). Students will make use of a PS&E checklist and compare the advantages of different methods of checking plans. The course is segmented into 6 modules: (1) Introduction to Plan Checking, (2) Your Plan Checking Process, (3) Checking the Plan Sheets, (4) Pay Items, (5) Special Provisions and (6) Additional Plan Documents.	E-learning	4 hours	Free

Project Management	<a href="#">Preconstruction Project Management Workshop</a>	This course provides instructions for how to complete a Pre-Construction Project Delivery Plan (PDP) - a relatively new process to CDOT that follows industry standard practices and incorporates existing CDOT practices and terminology. If you are interested in Project Management Training, please send a request to DOT_PMO@state.co.us.	Instructor-led	2 days	
Project Management	<a href="#">Professional Service Contracting (PSC) with Task Orders</a>	This course shows how CDOT preconstruction and construction staff work with the Engineering Contracting Service Unit (ECSU) to procure and manage the engineering and design related services needed for their projects. It follows the lifecycle of Professional Service Contracting from selection of the appropriate contract type, procuring the contract, creating a Task Order, and administration of the contract.	E-learning	1.5 hours	Free
Project Management	<a href="#">Project Development Manual E-learning</a>	This course introduces the Project Development Manual (PDM) and explains the role of the Form 1048 in preconstruction, the relationship between the Form 1048 and the PDM, and how to ensure adherence to CDOT policies and processes. The course is for Design Engineers responsible for managing and tracking the progress of preconstructino project design efforts.	E-learning	2 hours	Free
Project Management	<a href="#">Project Development Manual</a>	The PDM is designed to support your project and its specific requirements. The PDM helps you avoid common pitfalls and explains why you need to take specific steps at certain times. This half-day class teaches learners to recognize the role of the Form 1048 during pre-construction as well as how to find information using the PDM.	Instructor-led	1/2 day	
Engineering / Technical Design	<a href="#">Reading Structural Plans</a>	This course prepares engineers, technicians and inspectors to read and interpret structural plans in order to provide design input, identify design conflicts and constructability issues, and ensure construction compliance. Participants will use existing CDOT structural plans for exercises, activities and group discussion.	Instructor-led	2 days	\$400
Project Management	<a href="#">SAP Project Portal</a>	The SAP Project Portal e-learning course provides a high-level overview of the SAP Project Portal. It also describes key fields used for project management during the Preconstruction and Construction phases and explains how the Project Portal interacts with other software programs.	E-learning	2 hours	Free

Engineering / Technical Design	<a href="#"><u>Specifications Writing and Development for Designers</u></a>	Specifications are a critical part of any CDOT contract and communicate the procedures, materials, equipment and payment terms needed to complete the work. This course introduces designers to the tools, processes and best practices for creating specifications packages. You should have a basic understanding of CDOT processes and terminology prior to taking this course.	E-learning	2 hours	Free
Engineering / Technical Design	<a href="#"><u>Survey Basics for Engineers</u></a>	This curriculum is designed to introduce the fundamentals of surveying as it relates to highway construction projects. The curriculum is segmented into four modules: (1) Measuring the Earth, (2) Applying Earth Measurements, (3) Land Ownership and Right of Way, and (4) Measurement Technologies. The curriculum covers topics that include coordinate systems, survey plan sheets and survey data, verifying project location, how to request a survey, and the tools and technologies of surveying. It also covers concepts of selecting the best method, time needed, accuracy, LIDAR, and total station, among others.	Curriculum	4 hours	Free
Project Management	<a href="#"><u>Utility Engineering Project Management E-learning</u></a>	The Utility Engineering Project Management E-learning introduces CDOT's process and methodology for managing sub-surface utility investigation and relocation. CDOT's process emphasizes collaboration with utility owners and other stakeholders throughout a construction project. This course is a prerequisite for the one day instructor-led Utility Engineering Project Management Workshop.	E-learning	4 hours	Free
Project Management	<a href="#"><u>Utility Engineering Project Management Workshop</u></a>	The Utility Engineering Project Management Workshop is an immersive learning experience that challenges participants to analyze and assess the needs for utility coordination throughout the project lifecycle from planning through design and construction. This course utilizes resources from past projects at CDOT to provide a learning experience that is grounded in the context of everyday practice in utility engineering.	Instructor-led	1 day	\$150



Project Management	<a href="#">Work Hour Estimation Curriculum</a>	As part of the CDOT Accountability and Transparency Wildly Important Goals (WIG), CDOT Project Managers who manage professional service task orders will be required to complete the new Work Hour Estimation Curriculum to improve their Work Hour Estimation skills. The curriculum has two sections: Introducing the Work Hour Estimation Process (videos, appendix, and assessment) and the Work Hour Estimation: Scope of Work E-learning.	Curriculum	3 hours	Free
Project Management	<a href="#">Work Hour Estimation: Scope of Work</a>	This course is an introduction to developing design work-hour estimates for both in-house and consultant-staffed projects. The work-hour estimates will be based on CDOT's Generic Scope of Work, which is used as a point of reference throughout this module. The course explains CDOT's Generic Scope of Work and how it forms the basis for a detailed project scope of work. It also describes what specific project knowledge and speciality unit expertise adds to the detailed scope of work.	E-learning	2 hours	Free
Professional/ Personal Skills	<a href="#">Writing for Engineering Professionals 1</a>	Writing for Engineering Professionals 1 is a one-day technical-writing workshop. It is the prerequisite course to the Writing for Engineering Professionals 2. All training materials have been customized for those in civil engineering, the environmental sciences, construction, and related fields. This workshop teaches writing as a science by using metrics and strategies to ensure clarity and conciseness. The target audience for this workshop includes engineers and support staff who must write engineering documents.	Virtual Instructor-led	1 day	\$100
Professional/ Personal Skills	<a href="#">Writing for Engineering Professionals 2</a>	Writing for Engineering Professionals 2 reinforces and expands on the writing strategies and metrics delivered in the first workshop, Writing for Engineering Professionals 1. This course teaches learners how to adjust reader perception by applying six tone strategies and how to increase conciseness using six easy edits. It also explains how to organize documents using five logical patterns and how to use proofreading strategies to produce error-free documents.	Virtual Instructor-led	1 day	\$100



Professional/ Personal Skills	<a href="#">Writing for Engineering Professionals 3</a>	Learners can enroll in Writing for Engineering Professionals 3 even if they have not completed Writing for Engineering Professionals 1 or 2. This course teaches learners how to ensure clarity of a message, how to create parallel structure at the word, phrase, and sentence level, as well as when to use active or passive voice when writing technical documents.	Virtual Instructor-led	1 day	\$100
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