SALT LAKE TECH | SLCC

TELV 1400 *BICSI Technician*

Instructor: TBD
Phone: TBD
E-mail: TBD

TEXTBOOK AND SUPPLIES:

- BICSI Information Technology Systems Installation Methods Manual (ITSIMM), 8th Edition

PREREQUISITE: 1) One year of verifiable full-time equivalent structured cabling systems (SCS) field experience through an on-the-job, trade school, or an apprenticeship program, and 2) Hold a certificate of course completion of BICSI's instructor-led hands-on training in Copper and Fiber structured cabling systems (SCS), or 3) Instructor approval

OTHER REGISTRATION RESTRICTION(S): It is highly recommended that students be registered with DOL by their Sponsor (employer)

COURSE DESCRIPTION: In this course, students will be introduced to working with complex systems, performing highly technical installations, and diagnostic testing on structured cabling systems (SCS) and network components. In addition, students will prepare to take the credentialing exam. *SLCC is a BICSI-authorized training facility.*

Upon successfully completing this course, students should be able to:

1. Conduct field planning, implementation, and design, including performing a pre-construction site survey and developing a job plan, performing an onsite start-up site survey, and closing out a job
2. Establish pathways and space for building telecommunication spaces, installing cable support systems, and preparing telecommunication outlets
3. Set up, pull, terminate, splice, test, and troubleshoot copper and fiber cable
4. Perform retrofits, including site survey, cutover, and removing an abandoned cable
5. Install security, alarm, wireless, and Distributed Antenna System (DAS) systems
6. Adhere to local, state, and federal fire and building codes and standards

COURSEWORK:

- **Weekly Homework:** You are expected to come to class prepared with your weekly readings and assignments.
- **Weekly Quizzes:** Take and submit online in Canvas.
    - Weekly quizzes will be taken online in Canvas. You are allowed two attempts with the higher score recorded.
- **Attendance/Participation:** Attendance is expected and crucial to understanding the material and participating in classroom activities. Attendance and participation will be recorded daily and included as part of your coursework grade. 95% attendance is required, which means you are allowed one excused absence.
- **Final Exam:** The final exam will be a comprehensive examination.
- **Lab Projects:** Completion of related lab projects will be required. Missed projects must be coordinated with the instructor and made up.

GRADES: Final grades will be calculated using the following scale and weights.

A	93% and above	C	73% – 78.9%
A-	90% – 92.9%	C-	70% – 72.9%
B+	87% – 89.9%	D+	67% – 69.9%
B	83% – 86.9%	D	63% – 66.9%
B-	80% – 82.9%	D-	60% – 62.9%
C+	77% – 79.9%	E	below 60%

Homework	20%
Quizzes	20%
Final exam	25%
Weekly lab activities	25%
Attendance/participation	10%

Schedule (Subject to change)

WEEK	DAY 1	DAY 2	ASSIGNMENTS
1	• Codes and Standards • Safety • Structure Cabling Systems (SCS) • Physical network topologies and systems • Network components • Properties and types of copper cable and fiber	Field Planning, Implementation, and Design • Site survey (pre-construction) • Job plan (pre-construction) • Blueprints • Inventory job supplies and materials • Site survey (onsite start-up) • Labeling scheme • Close out a job	TBD
2	Establish Pathways and Spaces • Build telecommunication spaces (e.g., TRs, ERs, EFs, TEs) • Install bonding infrastructure • Install cable support systems	Establish Pathways and Spaces • Prepare a telecommunication outlet at wall • Install cut-in rings (cavity box)	TBD
3	Establish Pathways and Spaces • Prepare a telecommunication outlet at floor • Prepare telecommunication outlet at utility column, and modular furniture • Prepare telecommunication outlet at other locations (e.g., ceilings, hazardous, exterior)	Establish Pathways and Spaces • Install sleeves, cores, and slots • Install poke throughs • Install cable trays, ladder racks and continuous cable support systems • Install non-continuous cable supports	TBD
4	Establish Pathways and Space • Install raceways • Install cable support systems under the floor • Install inner duct for fiber (ENT) • Install firestop and smoke barrier system	Pull Fiber Cable • Set up cable pulling • Installing pull string or rope in conduit • Pull horizontal telecommunication outlet cable (conduit) and cable in an open ceiling	TBD

WEEK	DAY 1	DAY 2	ASSIGNMENTS
5	Pull Copper and Fiber Cable • Pull backbone - riser from the top down • Pull backbone – riser from bottom up • Pull backbone - horizontal backbone • Pull cable – fiber specific • Install air-blown or air-assist fiber	Terminate Copper and Fiber Cable • Pre-termination function • Install correct connecting hardware for copper and fiber terminations • Copper IDC termination (multi-pair) • Copper IDC termination (four-pair)	TBD
6	Terminate Copper and Fiber Cable • Coax termination • Copper crimp termination-modular plugs • Fiber termination Splicing • Fiber splicing (e.g., fusion, mechanical) • Copper splicing	Integration and Convergence • Install security and alarm systems • Install wireless systems • Install Distributed Antenna Systems (DAS) • Install structure cabling system (SCS) and outside plant (OSP) to support installation of passive optical network (PON) • SCS to support installation of other systems (e.g., paging, sound masking, clock, nurse call, BAS, life safety, elevator)	TBD
7	Test Copper and Fiber Cable • Copper cable testing • Fiber cable test at Tier 1 certification (power meter) • Tier 2 fiber testing using Optical Time Domain Reflectometer (OTDR)	Troubleshooting • Copper cable troubleshooting • Fiber cable basic troubleshooting (e.g., power meter or VFL) • Fiber cable advanced troubleshooting using OTDR	TBD
8	Retrofits • Site survey (retrofit) • Active circuits • Cutover • Remove abandoned cable	• Wrap-up • Final	TBD

WITHDRAWAL POLICY: The College's withdrawal schedule is followed. No withdrawals will be approved beyond the drop date.

COMMUNICATION and FEEDBACK EXPECTATIONS: Email is the best way to communicate with your instructor through the Canvas Inbox. You can expect to receive responses to emails within 24 business hours. You can expect that projects and exams will be graded and recorded within one week of when the assignment was submitted. Keep the line of communication open to avoid any misunderstandings.
ELECTRONIC DEVICES IN THE CLASSROOM: No video or audio recording in the classroom is allowed without written authorization from the instructor. Cell phones and other electronic devices should be silent and off the desk during class except to take notes if it is not distracting to classmates. In case of an emergency, exit

the classroom to use your cell phones. Disruptive behavior will cause you to be excused from class and lose participation points. Please let your instructor know of any special circumstances at the start of the semester.

SAVE YOUR WORK: In case of human or computer errors, it is recommended that you save all coursework until you have received a final grade.