

AP SM 102 Core II (4)
 3 hours lecture-3 hours laboratory
Prerequisite: A minimum grade of 'C' in AP SM 101
Note: May be taken 2 times
 A continuation of basic sheet metal processes as well as an introduction to simple sheet metal forming processes.

AP SM 103 Core III (4)
 3 hours lecture-3 hours laboratory
Prerequisite: A minimum grade of 'C' in AP SM 102
Note: May be taken 2 times
 An introduction to intermediate sheet metal processes demonstrating job layout, architectural details and construction techniques with problems of unusual complexity and difficulty.

AP SM 104 Core IV (4)
 3 hours lecture-3 hours laboratory
Prerequisite: A minimum grade of 'C' in AP SM 103
Note: May be taken 2 times
 A continuation of intermediate processes with problems of unusual difficulty and complexity.

AP SM 105 Sheet Metal Welding (3)
 1½ hours lecture-4½ hours laboratory
Prerequisite: AP SM 104
Note: May be taken 2 times
 An introduction to the basic principles and methods of gas and arc welding used in the sheet metal industry. Includes codes, standards, welding theory and the practical application using prescribed welding procedures and equipment.

AP SM 106 Plans and Specifications (4)
 3 hours lecture-3 hours laboratory
Prerequisite: AP SM 105
Note: May be taken 2 times
 An introduction to the language and organization of plans and specifications for sheet metal projects. Topics will include architectural, structural, mechanical and electrical drawings as well as how to write and implement a change order to plans and specifications.

AP SM 107 Construction Plan Problem Solving (4)
 3 hours lecture-3 hours laboratory
Prerequisite: AP SM 106
Note: May be taken 2 times
 Learn to apply detailing and research skills to create changes to plans and specifications using intermediate process problems of unusual complexity and difficulty.

AP SM 108 Introduction to Basic Refrigeration (4)
 3 hours lecture-3 hours laboratory
Prerequisite: AP SM 107
Note: May be taken 2 times
 An introduction to the physical components and systems of a basic HVAC system as well as hands-on techniques for startup and basic system troubleshooting.

AP SM 109 Foreman and Project Management Training (4)
 3 hours lecture-3 hours laboratory
Prerequisite: AP SM 108
Note: May be taken 2 times
 Overview of the knowledge, skills and abilities required to effectively perform as a foreman and project manager in the sheet metal industry.

AP SM 110 Architectural Problem Solving (4)
 3 hours lecture-3 hours laboratory
Prerequisite: A minimum grade of 'C' in AP SM 109
Note: May be taken 2 times
 Overview of the knowledge, skills, and abilities of advanced architectural project performance.

AP SM 197 Sheet Metal Topics (.5-4)
 Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/lab-

atory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: Indentured apprentice to the San Diego Sheet Metal Joint Apprenticeship and Training Committee
Note: May be taken 4 times
 Topics in Sheet Metal. See Class Schedule for specific topic offered. Course title will designate subject covered.

Sound and Communication Systems Installer (AP SC)

A three-year apprenticeship program. Applicants for this program should be directed to the Riverside and San Bernardino Joint Electrical Apprenticeship Training Committees, 1855 Business Center Drive, San Bernardino, CA 92408. Telephone: (909) 890-1703.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
AP SC 101 Intro to Sound/Communication Trade Industry	4
AP SC 102 Electrical Theory and Practices DC	4
AP SC 103 Electrical Theory and Practices AC	4
AP SC 104 Semiconductor Electronics	4
AP SC 105 Intro to Digital Electronics and Signaling Devices	4
AP SC 106 Management/Alarms/Codes/Circuits	4
APWE 113 Electrician Work Experience	16
TOTAL UNITS	40

Sound Technician (AP SC)

A four-year apprenticeship program. Students will work in the field during the day and attend class in the evenings. Each apprentice is paid for field work with regularly scheduled pay increases based on required work hours and completion of classroom instruction. Upon completion of this program, students will receive a certificate of completion from the California Division of Apprenticeship Standards and Journeyman Sound Technician status in the I.B.E.W. All students must be indentured Sound Technical apprentices to be eligible for the course. Interested applicants from San Diego/Imperial counties should apply to the San Diego Electrical Training Trust, 4675 Viewridge Avenue, Suite D, San Diego, CA 92123. Telephone: (858) 569-6322, extension 111.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
AP SC 101 Intro to the Sound/Communication Trade Industry	4
AP SC 102 Electrical Theory and Practices DC	4
AP SC 103 Electrical Theory and Practices AC	4
AP SC 104 Semiconductor Electronics	4
AP SC 105 Introduction to Digital Electronics	4
AP SC 106 Management/Alarms/Codes/Circuits	4
AP SC 107 Life Safety and Security System Applications	4
AP SC 108 Specialized Systems and Supervision Techniques	4
APWE 113 Electrician Work Experience	16
TOTAL UNITS	48

COURSE OFFERINGS

AP SC 101 Introduction to the Sound and Communication Trade Industry (4)
 3 hours lecture-3 hours laboratory
Prerequisite: A minimum grade of 'C' in MATH 50. Completion of designated tests with a passing grade determined by the appropriate committee. Indentured Apprentice to the Riverside, San Bernardino, Mono, and Inyo Counties Sound and Communications Joint Apprenticeship Committee or the San Diego Sound & Communications Joint Apprenticeship Committee
Note: May be taken 2 times
 Introduction to the sound and communication industry, electrical code, fundamentals of wiring methods, fastening devices, electrical conductors, circuits, voltage and data communication.