COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

EMET 50 Basic Mechanics for Servicing Electro-Mechanical Equipment (3)

3 hours lecture
Recommended preparation: Knowledge of simple algebraic equations; different number systems; different types of gears; mechanical advantage; and fluid dynamics
Provides students with a basic overview of the maintenance process for postal service electro-mechanical equipment. Topics of study include levers and lever assemblies, gears and gear trains, sprockets and pulleys, basic hydraulics.

EMET 51 Mail Processing Equipment Mechanic Exam Preparation (3)

3 hours lecture
Recommended preparation: Technical Mathematics-Ability to perform simple algebraic equations; Electricity-Understand DC and AC fundamentals; Electronics-Understand basic electronic principles; Mechanics-Understand basic mechanic fundamentals; Digital Electronics-Understand basic digital electronic principles.
Designed to prepare students for the U.S. Postal Service Maintenance Mechanic, MPE-7 Entrance Examination. Highly recommended for students interested in a U.S. Postal Service Career focusing on equipment maintenance. Topics will cover all the aspects of mail processing equipment (MPE) maintenance, such as mechanics, electrical, and basic electronic systems.

Electronics and Computer Hardware Technology (ECHT)

Contact Occupational & Noncredit Programs for further information.
(760) 744-1150, ext. 2284
Office: AA-138

COURSE OFFERINGS

Courses numbered under 50 are non-degree courses.
Courses numbered under 100 are not intended for transfer credit.

ECHT 20 Supplemental Instruction for Electronics and Computer Hardware Technology (1)

2 hours lecture/laboratory
Note: May be taken 4 times
Instructor coordinated informal peer assisted study sessions in which students compare notes, discuss readings, review homework, perform laboratory experiments, and work on projects that are associated with any ECHT course. Instructor will provide mini-lessons in direct response to small group assessed needs.

ECHT 100 Electronic Components and Circuits (4.5)

3 hours lecture-3 hours lecture/laboratory
Transfer acceptability: CSU
Fundamentals of DC and AC: Ohm's Law, Kirchoff's Laws, Thevenin's Theorem, magnetism, transformers, capacitance, inductance, and tuned circuits. Laboratory covers application of theory, use of test equipment, circuit design, construction techniques, and troubleshooting carried out through traditional workstation procedures and by computer simulation programs.

ECHT 101 Discrete Electronic Circuits (4.5)

3 hours lecture-3 hours lecture/laboratory
Prerequisite: ECHT 100
Transfer acceptability: CSU
Fundamentals of discrete semiconductors, linear and non-linear, analog: diodes, power supplies, transistors, and amplifiers. Laboratory covers application of theory, use of test equipment, circuit design, reconstruction techniques, and troubleshooting carried out through traditional workstation procedures and by computer simulation programs.

ECHT 102 Integrated Electronic Circuits (4.5)

3 hours lecture-3 hours lecture/laboratory
Prerequisite: ECHT 101
Transfer acceptability: CSU
Fundamentals of linear and non linear, analog, integrated circuits: thyristors, frequency effects, operational amplifiers, feedback, non linear OPAMPS, oscillators, power supplies, and communication circuits. Laboratory covers application of theory, use of test equipment, circuit design, construction techniques, and troubleshooting.

ECHT 126 Introduction to Electrical and Computer Engineering (4)

3 hours lecture-3 hours laboratory
Prerequisite: Math 140
Note: Cross listed as ENGR 126
Transfer acceptability: CSU
Introductory concepts covering a broad range of topics in Electrical and Computer Engineering presented in an integrated approach at a hands-on level. Students work in small teams to analyze, build, and test a small programmable robot for competition at the end of the semester. Provides basic understanding and skills for students to later build their theoretical understanding in more advanced physics and engineering courses.

ECHT 160 Electronics for Everyone (3)

3 hours lecture
Transfer acceptability: CSU
Overview course designed and taught so anyone can understand the basic concepts and applications of electronics. Topics covered are direct and alternating current, Ohm's Law, magnetism, transformers, capacitance, inductance, tuned circuits, diodes, transistors, amplifiers, oscillators, power supplies and computers.

ECHT 162 Electronic Printed Circuit Board Assembly and Equipment Troubleshooting (3)

2 hours lecture-2 hours lecture/laboratory
Note: May be taken 4 times
Transfer acceptability: CSU
Fundamentals of printed circuit board assembly: workmanship standards and forms, surface mount and through hole technology, and solder training. Hands-on training on the repair and troubleshooting of electronic equipment.

ECHT 197 Electronics and Computer Hardware Technology Topics (.5-3)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: May be taken 4 times
Transfer acceptability: CSU
Topics in Electronics and Computer Hardware Technology. See Class Schedule for specific topic offered. Course title will designate subject covered.

ECHT 203 Digital/Computer Electronics (4.5)

3 hours lecture-3 hours lecture/laboratory
Recommended preparation: ECHT 100
Transfer acceptability: CSU
Fundamental logic functions of AND'ing, OR'ing, and inverting will be studied in various combinational and sequential logic circuits such as: encoders, decoders, multiplexers, demultiplexers, flip-flops, registers, counters, clocks, memories, and microprocessors. The architecture and programming of the digital microprocessor will be emphasized. The primary components required for proper operation of a PC (personal computer) will be addressed. Designing, testing, and troubleshooting of computers and special projects.

ECHT 204 Microcomputer Architecture and Interfacing (4.5)

3 hours lecture-3 hours lecture/laboratory
Prerequisite: ECHT 203
Transfer acceptability: CSU
Advanced computer electronic concepts and applications using digital circuits and systems. Interfacing of microprocessors and PC's (personal computers) to peripherals. Upgrading of desktop PC's. Designing, testing, and troubleshooting of computer systems and special projects.

ECHT 205 Telecommunication Systems (4.5)
3 hours lecture-3 hours lecture/laboratory
Recommended preparation: ECHT 102 and 203
Transfer acceptability: CSU
Review of basic electronic analog and digital principles. Communication of information using analog/digital electronic transmission lines, antennas, testing and troubleshooting, as they relate to RADIO, RADAR, TV, Computers, Modems, Networks (Internet, World Wide Web [WWW]), Satellites, Cellular phones, and Fiber optic systems, will be addressed.

Emergency Medical Education (EME)

Contact the Emergency Medical Education Department for further information.
(760) 744-1150, ext. 8150
Office: ESC-610

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Paramedic Training

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Paramedic Training

College Credit for Certified Paramedics
This policy is for granting college credit for certified paramedics toward an Associate in Arts degree in Emergency Medical Technician Paramedic. In order for an already certified Paramedic to be granted college units for his/her certification, the following requirements must be met:

1. The EMT P must be currently certified in California as an EMT P.
2. The EMT P must be currently registered at Palomar College.

EMT-P Credit

1. The student may receive a maximum of 31 units for his/her EMT P training, which is equal to the number of units given at Palomar College for the EMT P courses.
2. The student may receive a maximum of 6 units for his/her former EMT B training, which is equal to the number of units given at Palomar College for the EMT B courses.
3. The student may not receive duplicate credit for any other EMT B or EMT P courses.

Degree Requirements
The Associate in Arts degree in Emergency Medical Technician Paramedic requires 60 units. The following criteria must be met:

1. 30 units must be issued by an accredited college on a letter grade basis, of which 12 units must be completed at Palomar College.
2. All other general education and competency requirements for the Associate in Arts degree as provided in the college catalog must be met.
3. When the student has completed the general education and competency requirements for the Associate in Arts degree and the 12 units required to be completed at Palomar College, the student will be awarded unit credit for education/training received in becoming an EMT P.

Paramedics interested in taking advantage of this policy should contact the Emergency Medical Education Department at (760) 744 1150, ext. 8150. Paramedics will be required to provide a copy of his or her paramedic license and course completion certificate for verification of paramedic licensure. Paramedics must also send prior college transcripts to the college and make an appointment with the Counseling Department at (760) 744-1150, ext. 2179 for evaluation of general education requirements.

PROGRAMS OF STUDY

Emergency Medical Technician Basic

The Emergency Medical Technician Program prepares the student in all elements of pre-hospital Basic Life Support. Upon successful completion of the program, the student is eligible to take the San Diego County EMT-Basic certification exam, which is the National Registry Emergency Medical Technician Basic exam.

Required Courses		Units
EME 100/PE 104	Advanced First Aid	3
EME 106	EMT Basic (Lecture)	6
EME 106L	EMT Basic Skills (Laboratory)	1

Paramedic Training

The Paramedic Program prepares the student in all elements of prehospital advanced life support. Upon successful completion of the program, the student is eligible to take the State of California EMT P certification exam, which is the National Registry Emergency Medical Technician-Paramedic Exam.

Admission to the program is by special application.
To be eligible for consideration, the applicant must:

1. Have one year full-time pre-hospital experience as an EMT Basic.
2. Be eligible for admission to Palomar College.
3. Meet academic requirements outlined in the Paramedic Program brochure produced by the EME Program.

AND

4. Have completed ZOO 145 with a grade of 'C' or better and EME 175 and EME 175L with a "B" or better.

Prerequisite Courses		Units
ZOO 145	Intro to Anatomy/Physiology	3
EME 106	EMT Basic (Lecture)	6
EME 106L	EMT Basic Skills (Laboratory)	1
EME 175	Paramedic Preparation (Lecture)	2
EME 175L	Paramedic Preparation Skills (Laboratory)	1

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Students must achieve a minimum score of 80% in each of the required courses in order to continue in the program.

Program Requirements		Units
EME 206	Intro/Paramedic Training (Lecture)	4
EME 206L	Intro/Paramedic Training (Laboratory)	1
EME 207	Paramedic Medical Training (Lecture)	10
EME 207L	Paramedic Medical Skills (Lab)	1.5
EME 208	Paramedic Trauma Training (Lecture)	4.5
EME 208L	Trauma Skills (Laboratory)	.5
EME 209	Paramedic Obstetrical/Pediatric Training (Lecture)	2.5
EME 209L	Paramedic Obstetrical/Pediatric Skills (Lab)	.5
EME 210	Hospital Clinical Experience	4
EME 211	Clinical Integration I	1.5
EME 212	Clinical Integration II	1.5
EME 215	Field Internship	9
TOTAL UNITS		**40.5**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

EME 55 CPR for Health Care Providers (.5)
½ hour lecture
Note: Credit/No Credit grading only; may be taken 4 times
Cardio-pulmonary resuscitation (CPR) course for one person CPR, two person CPR, child CPR, infant CPR, AED, obstructed airway, BVM, and mouth-to-mask ventilation based on current American Heart Association standards.