

Maintenance Mechanic

Specifically for individual employed or seeking employment in a medium to large distribution center and to prepare candidates to pass the mail processing equipment (EMET) technician's examination.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
EMET 50	Basic Mechanics for Servicing Electro-Mechanical Equip.	3
EMET 51	Mail Processing Equipment Mechanic Exam Preparation	3
TOTAL UNITS		6

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

EMET 50	Basic Mechanics for Servicing Electro-Mechanical Equipment	(3)
<i>3 hours lecture</i>		
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)
<i>3 hours lecture</i>		
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-8 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.		

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

Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• EMT Basic

The Paramedic Training program is accredited by the Committee on Accreditation of Educational Programs for Emergency Medical Services Professionals.

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 40.5 units for 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 7 units for 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

EMT Basic

This program prepares the student with the knowledge and skills necessary to take the National Registry EMT examination and enter the workforce in the State of California.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
EME 100/HE 104	First Responder	3
EME 106	Emergency Medical Technician (Lecture)	6
EME 106L	Emergency Medical Technician Skills (Laboratory)	1.5
TOTAL UNITS		10.5

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
EME 106	Emergency Medical Technician (Lecture)	6
EME 106L	Emergency Medical Technician Skills (Laboratory)	1.5
EME 175	Paramedic Preparation (Lecture)	2
EME 175L	Paramedic Preparation Skills (Laboratory)	1
ZOO 145	Introduction to Anatomy and Physiology	3

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

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

		Units
EME 206	Introduction to Paramedic Training (Lecture)	5.5
EME 206L	Introduction to Paramedic Training (Laboratory)	1.5
EME 207	Paramedic Medical Training (Lecture)	10
EME 207L	Paramedic Medical Skills (Laboratory)	2
EME 208	Paramedic Trauma Training (Lecture)	4.5
EME 208L	Trauma Skills (Laboratory)	1
EME 209	Paramedic Obstetrical and Pediatric Training (Lecture)	2.5
EME 209L	Paramedic Obstetrical and Pediatric Skills (Laboratory)	1
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 44

Note: EME 220, 223, and/or 224 are to be taken by students who have not satisfactorily met program requirements. The EME Department will determine which course or courses should be taken and the number of hours required to make up the deficiencies.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit. EME courses may not be taken as an audit.

EME 55 CPR for Health Care Providers (.5)

½ hour lecture

Note: Pass/No Pass 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.

EME 100 First Responder (3)

3 hours lecture

Note: Cross listed as HE 104

Transfer acceptability: CSU; UC

The study and application of emergency medical skills and procedures, including basic anatomy and physiology, terminology, and prevention of disease transmission. CPR certification from the American Heart Association.

EME 106 Emergency Medical Technician (Lecture) (6)

6 hours lecture

Prerequisite: Current American Heart Association CPR for Health Care Providers and American Red Cross Emergency Response card or equivalent, and must be age 18 by the first day of class.

Corequisite: EME 106L

Note: May not be taken for Pass/No Pass grading; may only be taken 2 times

The study of EMT theory and knowledge required for identification and treatment of pre-hospital emergencies. The course prepares the student for National Registry, California, and San Diego County EMT certification.

EME 106L Emergency Medical Technician Skills (Laboratory) (1.5)

4½ hours laboratory

Prerequisite: Current American Heart Association CPR for Health Care Providers CPR and American Red Cross Emergency Response card or equivalent, and must be age 18 on the first day of EME 106

Corequisite: EME 106

Note: Pass/No Pass grading only; may be taken 2 times

Application of skills required for treatment of pre-hospital emergencies. This course prepares the student for National Registry, California and San Diego County EMT certification. Student is required to complete 16 hours supervised ambulance and emergency department observation.

EME 116 Emergency Medical Technician Refresher Course (1.5)

1½ hour lecture

Prerequisite: Possess a valid current EMT-B, EMT-II or EMT-P certificate, or have possessed one within the last four years

Note: Pass/No Pass grading only

Review of basic EMT material and update of new material and techniques. Meets State of California requirements for EMT-B recertification continuing education units. An Optional NREMT-B Recertification Exam available the day after the class ends.

EME 125 EMT Interface (5)

2 hours lecture - 9 hours laboratory

Prerequisite: A minimum grade of 'C' in EME 106 or EMT Basic, or concurrent enrollment in EME 106

Note: Pass/No Pass grading only

Necessary skills to take the EMT Basic from the classroom to the work environment. Covers county EMS legalities, and provides more in-depth knowledge and skills for EMS personnel to improve success and advancement in the EMS workforce.

EME 175 Paramedic Preparation (2)

2 hours lecture

Prerequisite: Current EMT with a minimum of 3 months full time pre-hospital experience

Corequisite: EME 175L

An overview of paramedic-level assessment skills combined with appropriate paramedic-level anatomy, physiology, and treatment relevant to the disease processes studied.

EME 175L Paramedic Preparation Skills (Laboratory) (1)

3 hours laboratory

Prerequisite: Current EMT with a minimum of 3 months full time pre-hospital experience

Corequisite: EME 175

Note: Pass/No Pass grading only

Performance of EMT skills combined with appropriate paramedic-level anatomy, physiology and treatment relevant to the disease processes studied.

EME 196 Special Problems in Field Internship (3, 3.5, 4, 4.5, 5)

9, 10½, 12, 13½, or 15 hours laboratory

Corequisite: EME 210 or EME 215

Application of skills and knowledge necessary for student to successfully complete either the Clinical or Field Internship of Paramedic Training. This is for a student who needs to be extended up to 10 shifts to allow fulfillment of EME 210 or 215 course obligations and requires an individual student specific contract.

EME 197A Emergency Medical Education Workshop: Emergency Medical Technician-Paramedic (.5-6)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Workshops to provide upgrading of knowledge and skills relative to paramedics. Will provide paramedic continuing education hours for classroom time. See Class Schedule for specific topic covered. Course title will designate subject covered.

EME 197B Emergency Medical Education Workshop: Emergency Medical Technician-Basic (.5-6)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Workshops to provide upgrading of knowledge and skills relative to EMT's. Will provide EMT continuing education hours for classroom time as indicated by topic. See Class Schedule for specific topic covered. Course title will designate subject covered.

EME 197E Emergency Medical Education Workshop: General (5-6)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Innovative and creative aspects updating Emergency Medical Education professions. See Class Schedule for specific topic covered. Course title will designate subject covered.

EME 200 Advanced Cardiac Life Support (1)

1 hour lecture

Prerequisite: Current CPR for Health Care Providers Certificate or "BLS" CPR card and must be an M.D., R.N. or EMT-P

Note: Pass/No Pass grading only; may be taken 4 times

Advanced Cardiac Life Support knowledge and skills necessary to provide the appropriate early treatment for cardiopulmonary arrest. Based on current American Heart Association guidelines.

EME 201 Pediatric Advanced Life Support (1)

1 hour lecture

Prerequisite: Current CPR for Health Care Providers Certificate or "BLS" CPR card and must be an M.D., R.N., or EMT-P

Note: May be taken 3 times

Pediatric Advanced Life Support knowledge and skills necessary to provide the appropriate early treatment for pediatric emergencies. Based on current American Heart Association guidelines.

EME 202 Prehospital Trauma Life Support (1)

1 hour lecture

Prerequisite: Current CPR for Health Care Providers Certificate or "BLS" CPR card and must be an M.D., R.N. or EMT-P

Note: Pass/No Pass grading only; may be taken 3 times

Knowledge and skills taught to provide prehospital trauma life support appropriate for the care of the trauma patient. National Association of Emergency Medical Technicians based course.

EME 203 Paramedic Challenge (Lecture) (2)

2 hours lecture

Prerequisite: RN, MD, PA or former Paramedic who meets State of California challenge requirements

Corequisite: EME 203L

Note: Pass/No Pass grading only; may be taken 2 times

Didactic challenge course for individuals who qualify for Paramedic Challenge per State of California Code of Regulations, Title 22. Allows the individual to attend the didactic portion of Paramedic training as needed to meet paramedic course content per individual student contract.

EME 203L Paramedic Challenge Skills (Laboratory) (5)

1 1/2 hours laboratory

Prerequisite: RN, MD, PA or former Paramedic who meets State of California challenge requirements

Corequisite: EME 203

Note: Pass/No Pass grading only; may be taken 2 times

Application of skills necessary for challenge course for individuals who qualify for Paramedic Challenge per State of California Code of Regulations, Title 22. Allows the individual to attend the skills portion of Paramedic Training as needed to meet paramedic course content per individual student contract.

EME 206 Introduction to Paramedic Training (Lecture) (5.5)

5 1/2 hours lecture

Prerequisite: Admission into Paramedic program

Corequisite: EME 206L

Note: May be taken 2 times

Introduction to paramedic training which meets the requirements of the National Educational Standards for Paramedic Training.

EME 206L Introduction to Paramedic Training (Laboratory) (1.5)

4 1/2 hours laboratory

Prerequisite: Admission into Paramedic program

Corequisite: EME 206

Note: Pass/No Pass grading only; may be taken 2 times

Application of skills necessary for the Introduction to Paramedic Training which meets the requirements of the National Educational Standards for Paramedic Training.

EME 207 Paramedic Medical Training (Lecture) (10)

10 hours lecture

Prerequisite: Admission into Paramedic program

Corequisite: EME 207L and EME 211

Note: May be taken 2 times

The study of medical and cardiac diseases for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Advanced Cardiac Life Support training and certification.

EME 207L Paramedic Medical Skills (Laboratory) (2)

6 hours laboratory

Prerequisite: Admission into Paramedic program

Corequisite: EME 207

Note: Pass/No Pass grading only; may be taken 2 times

Application of skills necessary for the medical portion of paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Advanced Cardiac Life Support training and certification.

EME 208 Paramedic Trauma Training (Lecture) (4.5)

4 1/2 hours lecture

Prerequisite: Admission into Paramedic program

Corequisite: EME 208L and EME 212

Note: May be taken 2 times

The study of traumatic emergencies for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 208L Trauma Skills (Laboratory) (1)

3 hours laboratory

Prerequisite: Admission into Paramedic program

Corequisite: EME 208

Note: Pass/No Pass grading only; may be taken 2 times

Application of skills necessary for trauma portion of paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 209 Paramedic Obstetrical and Pediatric Training (Lecture) (2.5)

2 1/2 hours lecture

Prerequisite: Admission into Paramedic program

Corequisite: EME 209L and EME 212

Note: May be taken 2 times

The study of Obstetrical and Pediatric emergencies for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals training and certification.

EME 209L Paramedic Obstetrical and Pediatric Skills (Laboratory) (1)

3 hours laboratory

Prerequisite: Admission into Paramedic program

Corequisite: EME 209

Note: Pass/No Pass grading only; may be taken 2 times

Application of skills necessary for the Obstetrical and Pediatric portion for paramedic training which meets the requirements of the National Educational Standards for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals training and certification.

EME 210 Hospital Clinical Experience (4)
 12 hours laboratory
Prerequisite: A minimum grade of 'C' in EME 209 and EME 209L
Note: May be taken 2 times
 Supervised clinical experience in acute care areas of hospitals where knowledge of advanced life support techniques is necessary.

EME 211 Clinical Integration I (1.5)
 4½ hours laboratory
Corequisite: EME 207 and EME 207L or EME 208 and EME 208L
Note: May be taken 2 times; Pass/No Pass grading only
 Application of assessment and BLS skills necessary to be successful in paramedic training.

EME 212 Clinical Integration II (1.5)
 4½ hours laboratory
Corequisite: EME 209 and EME 209L or EME 210
Note: Pass/No Pass grading only; may be taken 2 times
 Application of assessment and BLS skills necessary to be successful in paramedic training.

EME 215 Field Internship (9)
 27 hours laboratory
Prerequisite: A minimum grade of 'C' in EME 210
Note: May be taken 2 times
 Assignment to a response vehicle with a field preceptor. Includes direct patient care responsibilities in providing advanced life support.

EME 220 Paramedic Refresher (2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8)
 2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8 hours lecture
Prerequisite: Provide proof of receiving a failing grade in one or more of the following courses: EME 207, 207L, 208, 208L, 210, 215 within the previous 24 months.
 Provides students who were unsuccessful in one or more of the following courses, EME 207, 207L, 208, 208L, 210 or 215, an opportunity to refresh, strengthen, and maintain their clinical abilities and knowledge base.

EME 223 OB/Peds Block Refresher (1, 2)
 1, 2 hours lecture
Prerequisite: Provide proof of receiving a failing grade in one or more of the following courses: EME 210, 215 within the previous 24 months
Corequisite: EME 224
 Provides students who were unsuccessful in one or more of the following courses, EME 210 or 215, an opportunity to refresh, strengthen, and maintain their academic knowledge base in obstetrical and pediatric medicine.

EME 224 Clinical Refresher (1.5)
 ½ hour lecture - 3 hours laboratory
Prerequisite: Failure in EME 215
Corequisite: EME 223
 Provides students who were unsuccessful in EME 215 an opportunity to refresh, strengthen, and maintain their clinical abilities and knowledge base.

EME 295 Directed Study in Emergency Medical Education (1, 2, 3)
 3, 6, or 9 hours laboratory
Prerequisite: Approval of project or research by department chairperson/ director
Note: May be taken 4 times
 Independent study for students who have demonstrated skills and/or proficiencies in Emergency Medical Education subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Engineering (ENGR)

Contact the Physics and Engineering Department for further information.
 (760) 744-1150, ext. 2505
 Office: NS-355B

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

PROGRAMS OF STUDY

Engineering

Provides the background to begin upper division coursework and will prepare the student for entry level jobs that require a knowledge of engineering and engineering related topics. The highly sequential nature of the engineering curriculum necessitates completion of lower division requirements before being admitted into upper division courses.

Engineering students are urged to give priority to the completion of major field requirements over the completion of general education requirements. Engineering lower division requirements are not the same for different universities. These institutions recommend that their particular lower division requirements be completed before transfer. Students should seek early assistance in planning their specific program from the Counseling Department, the Transfer Center, or the Physics/Engineering Department.

A.A. DEGREE MAJOR

Program Requirements (Select a minimum of 11 units)	Units
ARCH/DT 125 or AutoCAD Introduction to Computer Aided Drafting	
DT 128 SolidWorks Introduction to 3D Design and Presentation	3
ENGR 126 Intro Electric/Computer Engineering	4
ENGR 210 Electrical Network Analysis	3
ENGR 210L Electrical Network Analysis Laboratory	1
ENGR 231 Engineering Measurement Analysis	3
ENGR 235 Engineering Mechanics Statics	3
ENGR 236 Engineering Mechanics Dynamics	3
ENGR 245 Properties of Materials	4

Electives (Select a minimum of 30 units)

Note that mathematics courses are often prerequisite to engineering and physics courses.

MATH 140*	Calculus/Analytic Geometry, First Course	5
MATH 141	Calculus/Analytic Geometry, Second Course	4
MATH 205	Calculus/Analytic Geometry, Third Course	4
MATH 206	Calculus with Differential Equations	4
PHYS 230*	Principles of Physics	5
PHYS 231	Principles of Physics	5
PHYS 232	Principles of Physics	4
CHEM 110*	General Chemistry	3
CHEM 115*	General Chemistry	3
CHEM 110L*	General Chemistry Laboratory	2
CHEM 115L*	General Chemistry Laboratory	2

MINIMUM TOTAL UNITS 41

Recommended Elective: ENGR 100

* Courses marked with an asterisk may be used to fulfill General Education requirements.

ENG 100, ENG 202, and BIOL 100 are highly recommended as electives to fulfill General Education requirements.

COURSE OFFERINGS

ENGR 100 Introduction to Engineering (1)
 1 hour lecture

Transfer acceptability: CSU; UC

An overview of the engineering profession including not only the different engineering fields but also the specialized demands and rewards of each. It will afford the opportunity for community building among the students, who usually are otherwise isolated in the community college milieu. Group projects in the course will encourage socialization and human relations training in what is