

DA 50 Introduction to Dental Sciences and Dental Occupations (3)

3 hours lecture

Note: Graded only

General orientation to dental assisting. Introduction to basic oral anatomy, oral hygiene techniques and prevention, human behavior, dental nomenclature, dental assisting, history of dentistry, ethics, role of the dental assistant and other auxiliary personnel; licensing and certification of dental assistants; dental jurisprudence and malpractice; California Dental Practice Act, psychology and observation in dental offices.

DA 57 Dental Sciences and Anatomy (3)

3 hours lecture

Note: Graded only

Introduction of dental terminology, histology, embryology, tooth growth, eruption, and anatomy; head and neck anatomy, and physiology of the body. Form and function of individual teeth, occlusion, oral pathology, diet and nutrition, relation of oral health to general health, microbiology, disease control and dental pharmacology.

DA 60 Dental Materials (3)

3 hours lecture - 1 hour laboratory

Prerequisite: Admission to the Registered Dental Assisting Program**Note:** Graded only

Chemical properties and uses of dental materials and solutions; manipulative techniques and methods of preparation.

DA 65 Dental Practice Management (2)

2 hours lecture - 1 hour laboratory

Prerequisite: Admission to the Registered Dental Assisting Program**Note:** Graded only

Reception and care of the patient in the dental office, communication skills, telephone techniques, appointment scheduling, dental computer software, dental records (charting health and dental history), filing, bookkeeping, accounts receivable and accounts payable, inventory management, principles of and use of insurance forms and collections.

DA 70 Dental Radiography I (2.5)

2 hours lecture - 2 hours laboratory

Prerequisite: Admission to the Registered Dental Assisting Program**Note:** Graded only

Theory and technique of oral radiography, radiation hygiene, anatomical landmarks, and methods and materials for processing radiographs using film and dental radiography. The laboratory portion will provide the student with knowledge concerning film and digital sensor placement, cone angulation, exposing and developing radiographs, and mounting and evaluating processed films and digital radiographs.

DA 71 Dental Radiography II (.5)

1½ hours laboratory

Prerequisite: A minimum grade of 'C' in DA 50 and 70, and proof of Hepatitis B Immunization; and current BLS for Healthcare Providers Certificate**Note:** Graded only

Advanced clinical experience regarding film and digital sensor placement, cone angulation, exposing and developing radiographs, mounting and evaluating radiographs.

DA 75 Dental Operative Procedures (5)

3 hours lecture - 6 hours laboratory

Prerequisite: Admission to the Registered Dental Assisting Program**Note:** Graded only

Applications of and introduction to preclinical dental assisting in operative and specialty dental procedures, care of equipment, instrumentation, infection control, disease transmission, charting, utilization of dental materials, dental office emergencies, and functions delegated to the California Registered Dental Assistant.

DA 82 Preventive Dentistry I (1.5)

1 hour lecture - 1½ hours laboratory

Prerequisite: Admission to the Registered Dental Assisting Program**Note:** Graded Only

This course teaches laboratory and clinical applications of coronal polishing, periodontics, preventive dentistry and placement of pit and fissure sealants.

DA 83 Preventive Dentistry II (.5)

2 hours laboratory

Prerequisite: A minimum grade of 'C' in DA 50, DA 82, proof of Hepatitis B Immunization, and current BLS for Healthcare Providers Certificate**Note:** Pass/No Pass grading only

Application of concepts and skills from DA 82. Emphasis is on the coronal polishing procedure and pit and fissure sealants as applied to clinical patients.

DA 85 Advanced Dental Procedures (5)

3 hours lecture - 6 hours laboratory

Prerequisite: A minimum grade of 'C' in DA 50, 60 and 75, and proof of Hepatitis B Immunization; and current BLS for Healthcare Providers Certificate**Note:** Graded only

Advanced laboratory and clinical experience focusing on basic skills previously learned. Emphasis is placed on 1) clinical use of impression materials for obtaining study models, 2) pouring and trimming plaster and stone models, 3) fabrication of custom trays, 4) fabrication of provisional restorations, and 5) advanced prosthodontic and orthodontic instruction.

DA 90 Clinical Rotation (6)

19 hours laboratory/clinical

Prerequisite: A minimum grade of 'C' in DA 50 and 75, and proof of Hepatitis B Immunization; and current BLS for Healthcare Providers Certificate**Note:** Pass/No Pass only

An intensive program of clinical dental experiences, working with patients and staff at clinics and/or private dental offices. Students will assist the dentists in specialized and operative procedures and duties delegated to the California licensed Registered Dental Assistant.

DA 97 Dental Assisting Topics (.5 - 4)

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: Pass/No Pass only

Topics in Dental Assisting. See Class Schedule for specific topic offered. Course title will designate subject covered.

Diesel Mechanics Technology (DMT)

Contact the Trade and Industry Department for further information.

(760) 744-1150, ext. 2545

Office: T-102A

Associate in Science Degrees -

AS Degree requirements are listed in Section 6 (green pages).

• Diesel Technology

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).

• Diesel Technology

PROGRAM OF STUDY**Diesel Technology**

The Diesel Technology program at Palomar College gives the student an opportunity to gain the skills and knowledge needed for success in the challenging field of Diesel Technology, learning about servicing and maintaining diesel powered highway trucks, off-road heavy equipment, and stationary engines. The two-year program which leads to a Certificate of Achievement can also be applied towards an Associate in Science Degree in Diesel Technology.

A.S. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DMT 100	Introduction to Diesel Mechanics	4
DMT 110	Heavy-Duty Electricity	4
DMT 105	Heavy-Duty Diesel Tune-Up/Analysis	4
DMT 200	Diesel Engine Rebuilding I	4
DMT 201	Diesel Engine Rebuilding II	4
DMT 120	Air Brake Systems	4
DMT 125	Truck Transmission and Drive Lines	4
Electives (Select 4 units)		
AT 160	Associated Studies in Automotives	3
CE 100	Cooperative Education	1 - 4
DMT 115	Alternative Fuels	4
DMT 130	Medium-Duty Diesel Engine Tune-Up	4
DMT 135	Basic Hydraulics	4
DMT 196	Special Problems In Diesel Technology	0.5 - 3
DMT 197	Diesel Mechanics Technology Workshop	0.5 - 3
IT/WELD 108	Technical Mathematics	3
	or	
MATH 56	Beginning/Intermediate Algebra	6
	or	
MATH 60	Intermediate Algebra	4
	or	
MATH 100	Exploring Mathematics	3
WELD 100	Welding I	3
TOTAL UNITS		32

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

DMT 100	Introduction to Diesel Mechanics	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Transfer acceptability: CSU		
Theory and practice of fundamental skills for the maintenance and operation of basic diesel engines. Topics for study include: basic theory of operation; engine applications; engine lubricating and cooling; intake, exhaust and fuel systems; and electronic control.		
DMT 105	Heavy-Duty Diesel Tune Up and Engine Analysis	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Prerequisite: A minimum grade of 'C' in DMT 100		
Transfer acceptability: CSU		
The use of software and diagnostic equipment in performing diesel tune-up. Topics include: theory of operation, tune-up procedures, fuel system function and repair, diagnostic equipment usage, electronic engine controls, mechanical and electronic engine system troubleshooting.		
DMT 110	Heavy-Duty Electricity	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Transfer acceptability: CSU		
Heavy-duty electricity systems principles and service. Topics of study include electrical theory, batteries, wiring diagrams, 12V and 24V starters, alternators and electrical troubleshooting, and test equipment.		
DMT 115	Alternative Fuels	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Recommended preparation: DMT 100		
Transfer acceptability: CSU		
Theory and servicing of alternative fueled engines. Topics for study include various types of fuels, fuel handling and safety procedures, basic principles, regulators and mixers, all system components operation and service, electronic control systems, and emission testing.		

DMT 120	Air Brake Systems	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Transfer acceptability: CSU		
The service and repair of heavy duty hydraulic and air brake systems and their components. Topics of study include brake troubleshooting, complete system repair, anti skid brake system, and related axle services.		
DMT 125	Truck Transmission and Drive Lines	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Transfer acceptability: CSU		
Service and repair of heavy duty truck drive lines. Topics for study include the disassembly, inspection and reassembly of single and multiple disc clutches, four to fifteen speed transmissions, universal joints, and differentials.		
DMT 130	Medium Duty Diesel Engine Tune Up	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Transfer acceptability: CSU		
The use of diesel tune up and diagnostic equipment. Topics include: fuel systems; compression testing; fuel pump and injection timing; troubleshooting procedures; alternators, regulators, and starting systems.		
DMT 135	Basic Hydraulics	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Transfer acceptability: CSU		
Basic hydraulic system principles and service. Topics of study include hydraulic theory, safety requirements, hydraulic diagrams and ISO symbols, component operation, service and repair troubleshooting, and test equipment usage.		
DMT 196	Special Problems in Diesel Technology	(.5-3)
<i>Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.</i>		
Transfer acceptability: CSU		
A special study in topics in the area of interest to diesel mechanics, generally research in nature. The content to be determined by the need of the student under a signed contract with the instructor.		
DMT 197	Diesel Mechanics Technology Workshop	(.5-3)
<i>Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture or laboratory may be scheduled by the department. Refer to Class Schedule.</i>		
Transfer acceptability: CSU		
A special selection of topics specific in nature. The contents will vary depending on specific needs of the students and community.		
DMT 200	Diesel Engine Rebuilding I	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Prerequisite: A minimum grade of 'C' in DMT 100		
Recommended preparation: DMT 105		
Theory and practice in rebuilding diesel engines. Topics for study include disassembly, cleaning, inspection, and analysis of engine parts. Also included are cylinder head service, sleeve and piston service, advanced machining and measuring techniques.		
DMT 201	Diesel Engine Rebuilding II	(4)
<i>3 hours lecture - 3 hours laboratory</i>		
Prerequisite: A minimum grade of 'C' in DMT 200		
Transfer acceptability: CSU		
Theory and practice in rebuilding diesel engines. Topics for study include final cleaning, inspection and reassembly of engine parts. Also included are assembly measuring, torque procedures and torque-turn methods used on engine assembly, and engine testing upon completion of assembly.		