

**DA 57 Dental Sciences and Anatomy (3)**

3 hours lecture

**Prerequisite:** Admission to the Registered Dental Assisting Program**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)**

1 1/2 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 - 1 1/2 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; may be taken 4 times

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-1

**Associate in Arts Degrees -**

AA 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 Arts Degree in Diesel Technology.

**A.A. DEGREE MAJOR OR  
CERTIFICATE OF ACHIEVEMENT**

Program Requirements	Units
AT 160 Associated Studies in Automotives	3
AT 197 Topics in Automotive	3
DMT 50 Introduction to Diesel Mechanics	4
DMT 54 Heavy-Duty Electricity	4
DMT 55 Heavy-Duty Diesel Tune-Up/Analysis	4
DMT 61 Diesel Engine Rebuilding I	4
DMT 62 Diesel Engine Rebuilding II	4
DMT 65 Air Brake Systems	4
DMT 66 Truck Transmission and Drive Lines	4
IT/WELD 108 Technical Mathematics	3

**Electives (Select 6 units)**

AT 105	Automotive Electricity	3
AT 125	Automotive Machining	3
DMT 56	Alternative Fuels	4
DMT 70	Med-Duty Diesel Engine Tune-Up	4
DMT 81	Basic Hydraulics	4
DMT 96	Special Problems in Diesel Technology	.5 - 3
DMT 97	Diesel Mechanics Tech Workshop	.5 - 3
WELD 100	Welding I	3
CE 100	Cooperative Education	1, 2, 3, 4

**TOTAL UNITS** **43**

**COURSE OFFERINGS**

Courses numbered under 100 are not intended for transfer credit.

**DMT 50 Introduction to Diesel Mechanics (4)**

3 hours lecture - 3 hours laboratory

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 54 Heavy-Duty Electricity (4)**

3 hours lecture - 3 hours laboratory

**Note:** May be taken 2 times

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 55 Heavy-Duty Diesel Tune Up and Engine Analysis (4)**

3 hours lecture - 3 hours laboratory

**Prerequisite:** A minimum grade of 'C' in DMT 50

**Note:** May be taken 2 times

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 56 Alternative Fuels (4)**

3 hours lecture - 3 hours laboratory

**Recommended preparation:** DMT 50

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 61 Diesel Engine Rebuilding I (4)**

3 hours lecture - 3 hours laboratory

**Recommended preparation:** DMT 50

**Note:** May be taken 2 times

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 62 Diesel Engine Rebuilding II (4)**

3 hours lecture - 3 hours laboratory

**Recommended preparation:** DMT 61

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.

**DMT 65 Air Brake Systems (4)**

3 hours lecture - 3 hours laboratory

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 66 Truck Transmission and Drive Lines (4)**

3 hours lecture - 3 hours laboratory

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 70 Medium Duty Diesel Engine Tune Up (4)**

3 hours lecture - 3 hours laboratory

**Note:** May be taken 2 times

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 81 Basic Hydraulics (4)**

3 hours lecture - 3 hours laboratory

**Note:** May be taken 2 times

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 96 Special Problems in Diesel Technology (.5-3)**

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.

**Prerequisite:** A minimum grade of 'C' in DMT 50

**Note:** May be taken 4 times

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 97 Diesel Mechanics Technology Workshop (.5-3)**

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.

**Note:** May be taken 4 times

A special selection of topics specific in nature. The contents will vary depending on specific needs of the students and community.

**Disability Resource (DR)**

Contact the Disability Resource Center for further information.

(760) 744-1150, ext. 2375

Office: DSPS

**COURSE OFFERINGS**

Courses numbered under 50 are non-degree courses.

Courses numbered under 100 are not intended for transfer credit.

**DR 15 English Essentials for Students with Disabilities (3)**

3 hours lecture

**Note:** Pass/No Pass grading only; may be taken 4 times; Students must have the ability to learn in a group setting. Students must be able to produce computer generated work by using the keyboard or other assistive technology.

Non-degree Applicable

Provides special assistance for students with disabilities to develop basic skills in written communication. Working with computers is part of the class format.

**DR 18 Phonics for Students with Disabilities (3)**

3 hours lecture

**Note:** May be taken 3 times

Non-degree Applicable

This course is designed to meet the needs of students with disabilities. It teaches the use of phonics as a spelling and reading strategy.

**DR 20 Pre-Algebra Support (3)**

3 hours lecture

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

Non-degree Applicable

Provides programmed instruction on an individual and/or small group basis to