#### **DMT 55** Heavy-Duty Diesel Tune Up and Engine Analysis

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**

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

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**

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**

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.

#### Special Problems in Diesel Technology (.5-3)

Units awarded in topics courses are dependent upon the number of hours quired 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.

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

Units awarded in topics courses are dependent upon the number of hours quired 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 Resosurce Center for further information.

(760) 744-1150, ext. 2375

Office: DSPS

(4)

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### **COURSE OFFERINGS**

Courses numbered under 50 are non-degree courses.

Courses numbered under 100 are not intended for transfer credit.

#### Personal Adjustment and Growth (2)

1½ hours lecture-1½ hours laboratory

**Note:** May be taken 3 times

Non-degree Applicable

An individualized class which explores existing concepts, theories, and practices pertaining to self appraisal defense mechanisms and interpersonal relations, and how that relates to school management and to the student's particular disability. This course is designed to meet the needs of students with disabilities.

#### **DR 10 Educational Assessment/Guidance** (.5)

1/2 hour lecture

Note: Open entry/Open exit; Pass/No Pass grading only; may be taken 2 times Non-degree Applicable

This individualized course is designed to assess, by means of diagnostic testing and the California Community College learning disability eligibility process, the student's need for academic accommodations in the community college setting. The student will be counseled in planning appropriate educational goals and in selecting and preparing for college classes.

#### **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 students with disabilities. Practice in understanding and performing basic arithmetic tasks necessary for successful functioning in society.

#### **DR 25** Algebra Support (1.5,3)

11/2 or 3 hours lecture

Recommended preparation: MATH 15 or eligibility for MATH 50

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

Non-degree Applicable

Provides personalized instruction in basic study management techniques for the support of students with disabilities in mainstream classes. The course will help students with disabilities to develop specialized study techniques and interpersonal skills needed for success in mainstream classes.

# DR 26 Composition Skills and Strategies for the Intermediate Writer

3 hours lecture

Recommended preparation: ENG 10 or eligibility for ENG 50

Note: May be taken 2 times

Non-degree Applicable

This class is designed to help students with disabilities improve their intermediate composition skills through methods and strategies specific to their disabilities.

### DR 40 Adapted Computer Skills

(3)

(3)

(3)

3 hours lecture

Note: May be taken 3 times

Non-degree Applicable

Provides computer training using specialized software and hardware adaptations to assist students with disabilities to develop skills in word processing and Internet research.

# DR 41 Advanced Adapted Computers for

Students with Disabilities (3)

3 hours lecture

Recommended preparation: DR 40

**Note:** May be taken 3 times

Non-degree Applicable

Provides training in more advanced software for students with disabilities by using their prescribed access technology. Course work meets computer literacy competence for CSUSM.

### DR 42 Voice Recognition for Students with Disabilities

3 hours lecture

Note: May be taken 3 times

Non-degree Applicable

Provides voice recognition computer training for students with disabilities.

### DR 43.1 Software for Students with Vision Loss I (3)

3 hours lecture

**Recommended Preparation:** Keyboarding skills with a minimum of 15 words per minute

Note: May be taken 2 times

Non-degree Applicable

Provides training using specialized software and hardware adaptations to assist students with blindness/low vision to develop computer skills.

### DR 43.2 Software for Students with Vision Loss II (3)

3 hours lecture

**Recommended Preparation:** Keyboarding skills with a minimum of 15 words per minute along with prior experience with a screen reading or magnification application **Note:** May be taken 2 times

Non-degree Applicable

Provides training using specialized software and hardware adaptations in combination with Microsoft Office, Internet Explorer, and other academic applications.

### DR 45L Adapted Computer Laboratory (I)

3 hours laboratory

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

Non-degree Applicable

Provides supervised hands on opportunities to acquire and reinforce skills on computer equipment adapted for students with disabilities.

### DR 47 Topics in Disability Resource (.5-3)

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

Note: May be taken 3 times

Non-degree Applicable

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

## **Drafting Technology (DT)**

Contact the Design and Consumer Eudcation Department for further information.

(760) 744-1150, ext. 2349

Office: ST-49

### Associate in Arts Degrees -

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

- Computer Assisted Drafting
- · Drafting Technology Multimedia
- · Drafting Technology Technical
- Electro-Mechanical Drafting and Design
- Interactive Media Design Emphasis in 3D Modeling and Animation
- Interactive Media Design Emphasis in Multimedia Design

### **Certificates of Achievement -**

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

- Computer Assisted Drafting
- Drafting Technology Multimedia
- Drafting Technology Technical
- Electro-Mechanical Drafting and Design
- Interactive Media Design Emphasis in 3D Modeling and Animation
- Interactive Media Design Emphasis in Multimedia Design

### **PROGRAMS OF STUDY**

### **Computer Assisted Drafting**

Prepares students in the skills necessary for employment as a computer assisted drafting operator.

# A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
DT/ARCH 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT 127	AutoCAD Customization	2
DT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 131 IT 108/	SolidWorks Advanced 3D Design and Presentation	3
WELD 108	Technical Mathematics	3
MATH 50	Beginning Algebra	4
MATH 50A and	Beginning Algebra Part I	2
MATH 50B	Beginning Algebra Part II	2
MATH 56	Beginning/Intermediate Algebra	6
MATH 60	Intermediate Algebra	4
Electives (Select 12 units)		
ARCH 200	Advanced Computer Aided Architectural Drafting	4
DT 110	Technical Drafting I with AutoCAD	4
DT III	Technical Drafting II with AutoCAD	4
DT 116	Geometric Dimensioning and Tolerancing	3 I - 3
DT 196A or	Special Problems in Drafting	1 - 3
DT 196B	Special Problems/CAD	I - 3
DT 202	Introduction to Revit Architecture	
DT 210	Printed Circuit Board Design	3
DT 211	Advanced Printed Circuit Board Design	3

