R CUL/ CUL 200	Menu Planning and Purchasing	2
R CUL/ CUL 210	Foodservice Management	3
R CUL/ CUL 220	Catering and Event Planning	3
R CUL/ CUL 298	Culinary Directed Practice I	3
R CUL/ CUL 299	Culinary Directed Practice II	3

Electives (Select a minimum of 3 units)

R CUL/ CUL 115	Dining Room Service	2
R CUL/ CUL 150	International Cuisine	3
R CUL/ CUL 230	Adv Garde Manger/Competition	3
R CUL/ CUL 240	Wines and Affinities	1
TOTAL UNITS		**41**

Culinary Skills

With a focus on basic food preparation and production skills, nutrition, and food safety and sanitation, the program prepares students for various entry-level positions in the foodservice industry. Practical hands-on lab activities in a modern commercial kitchen environment provide opportunities for students to master the skills required for employment.

Students will need to possess a current San Diego County Food Handler Card to participate in required kitchen/lab activities.

In order to earn a certificate, students must achieve a minimum grade of "C" in each of the certificate program courses.

Certificate of Proficiency

Program Requirements		Units
FCS/ MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/ CUL 110	Culinary Essentials I	3
R CUL/ CUL 111	Culinary Essentials II	3
R CUL/ CUL 130	Pantry/Garde Manger	3
R CUL/ CUL 115	Dining Room Service	2
TOTAL UNITS		**17**

Patisserie and Baking

With a focus on commercial baking and pastry making, the program prepares students for entry-level positions in bakeries, restaurants, resorts and casino operations. Practical hands-on lab activities in a modern commercial kitchen environment provide opportunities for students to master the skills required for employment.

Students will need to possess a current San Diego County Food Handler Card to participate in required kitchen/lab activities.

In order to earn a certificate, students must achieve a minimum grade of "C" in each of the certificate program courses.

Certificate of Proficiency

Program Requirements		Units
FCS/ MICR 110	Microbiology and Foods	3
FCS/HE 165	Fundamentals of Nutrition	3
R CUL/ CUL 120	Patisserie and Baking I	3
R CUL/ CUL 121	Patisserie and Baking II	3
TOTAL UNITS		**12**

COURSE OFFERINGS

CUL 110 Culinary Essentials I (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended preparation: *FCS 110/MICR 110*
Note: *Cross listed as R CUL 110; graded only*
Introduction to culinary arts and the foodservice industry. Fundamentals of food preparation and production, emphasizing industry standards. Lab work will focus on knife skills, standard cuts, and preparation of vegetables and starches. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 111 Culinary Essentials II (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *R CUL/CUL 110*
Note: *Cross listed as R CUL 111; graded only*
Advanced food production, including meat and protein fabrication. Lab work will include: stocks, sauces and soups; meat and game; poultry; fish and seafood; breakfast foods and classical cuisine. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 115 Dining Room Service (2)
4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Note: *Cross listed as R CUL 115; graded only*
Orientation to dining room operations with an emphasis on dining room service, techniques of table waiting, and dining room skills. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 120 Patisserie and Baking I (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Recommended Preparation: *FCS/MICR 110*
Note: *Cross listed as R CUL 120; graded only*
Fundamentals of baking, including ingredient properties and function, and preparation and evaluation of a variety of yeast products, quick breads, cookies, cakes, pies and pastries. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 121 Patisserie and Baking II (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *R CUL/CUL 120*
Note: *Cross listed as R CUL 121; graded only*
Advanced skills in the art of patisserie. Includes: classic pastries, pâte à choux and meringues; plated desserts; cake decorating; chocolate and sugar techniques. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 130 Pantry/Garde Manger (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *San Diego County Food Handler Card*
Recommended Preparation: *R CUL/CUL 110*
Note: *Cross listed as R CUL 130; graded only*
Introduction to cold food preparation and display. Includes salads, dressings, sandwiches and canapés. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 150 International Cuisine (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *Current San Diego County Food Handler Card*
Note: *Cross listed as R CUL 150; graded only*
A hands-on cooking, tasting and evaluating exploration of the major cuisines of the world. Includes Asian, Latin, European and American cuisines with a focus on the cultures that influenced their development. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 200 Menu Planning and Purchasing (2)
2 hours lecture
Prerequisite: *R CUL/CUL 111 and FCS 165/HE 165 and R CSIS/CSIS 120*

Note: *Cross listed as R CUL 200; graded only*
Basic principles of menu planning and purchasing with emphasis on: menu design; specifications and pricing; purchasing, inventory control and storeroom operations; and food and beverage cost control. Includes spreadsheet and database applications. Students will be expected to meet high standards of professionalism and work habits.

CUL 210 Foodservice Management (3)
3 hours lecture
Prerequisite: *R CUL/CUL 111*
Note: *Cross listed as R CUL 210; graded only*
Introduction to foodservice management with emphasis on human relations and employee development. Includes operational planning and coordination, problem-solving and decision-making, and personnel management. Students will be expected to meet high standards of professionalism and work habits.

CUL 220 Catering and Event Planning (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *R CUL/CUL 111 and R CUL/CUL 130*
Note: *Cross listed as R CUL 220; graded only*
Fundamentals of catering, including event planning, menu development and banquet preparation. Includes opportunities to apply culinary theory and skills in actual practice. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 230 Adv Garde Manger/Competition (3)
1 hour lecture - 4 hours lecture/laboratory
Prerequisite: *R CUL/CUL 111 and R CUL/CUL 130*
Note: *Cross listed as R CUL 230; graded only*
Application of advanced garde manger techniques in practical situations and culinary competition. Includes classical buffet presentation, decorative displays and artistic centerpieces. Students will be expected to meet high standards of professionalism, sanitation and work habits.

CUL 240 Wines and Affinities (1)
1 hour lecture
Prerequisite: *R CUL/CUL 111*
Note: *Cross listed as R CUL 240; graded only*
Classification and identification of wines, with emphasis on properties and affinities with food. Includes wines from various regions of the world. Students will be expected to meet high standards of professionalism and work habits.

CUL 298 Culinary Directed Practice I (3)
3 hours lecture – 10 hours lab
Prerequisite: *R CUL/CUL 111 and R CUL/CUL 130 or R CUL/CUL 121*
Note: *Cross listed as R CUL 298; graded only*
Directed learning opportunity for culinary arts students to increase their knowledge and skill in the areas of hot and cold food production through supervised on-the-job training. Students will be expected to follow Culinary Arts standards of professionalism. Current San Diego County Food Handler Card and TB clearance required.

CUL 299 Culinary Directed Practice II (3)
3 hours lecture-10 hours lab
Prerequisite: *RCUL/CUL 298, R CUL/CUL 200, FCS/MICR 110 and FCS/HE 165*
Note: *Cross listed as R CUL 299; graded only*
Directed entry-level professional work experience in the foodservice industry that provides exposure to the foodservice industry and an opportunity for culinary arts students to practice and demonstrate their employability skills and reflect on their future roles in the industry. Students will be expected to follow Culinary Arts standards of professionalism. Current San Diego County Food Handler Card and TB clearance required.

Dance (DNCE)

Contact the Performing Arts Department for further information, (760) 744-1150, ext. 2316

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAMS OF STUDY

Dance

Provides student with background to begin upper division work leading to a B.A. or B.F.A. in dance, or for continued training leading to a professional career in the field of dance and dance-related professions. Prepares student in basic skills necessary for involvement in community dance activities, such as teaching in recreation centers, YMCA's or YWCA's, private studios; performing or choreographing for community theatre productions. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. Degree Major or Certificate of Achievement

Program Requirements		**Units**
DNCE 100*	Survey of Dance	3
Two courses selected from the following classes:		
DNCE 101	Survey of World Dance	3
DNCE 105	Introduction to Dance History	3
DNCE 184	Introduction to Kinesiology	3
Three courses selected from the following classes:		
DNCE 115	Fundamentals of Ballet	1.5
DNCE 116	Ballet I	1.5
DNCE 210	Ballet II	1.5,2.5
DNCE 211	Pointe/Pas de Deux	1.5,2.5
Two courses selected from the following classes:		
DNCE 110	Modern Dance I	1.5
DNCE 111	Modern Dance II	1.5
DNCE 205	Modern Dance III	1,1.5
DNCE 206	Advanced Movement Patterns	1,1.5
Two courses selected from the following classes:		
DNCE 120	Jazz Technique I	1.5
DNCE 121	Jazz Technique II	1.5
DNCE 215	Jazz Technique III	1,1.5
DNCE 216	Advanced Dance Technique	1,1.5
One course selected from the following classes:		
DNCE 125	Theatre Dance I	1,1.5
DNCE 126	Theatre Dance II **(3)**	1,1.5
DNCE 130	Tap Dance I	1,1.5
DNCE 131	Tap Dance II	1,1.5
DNCE 132	Tap Dance III	1,1.5
One course selected from the following classes:		
DNCE 140	Dance Improvisation I	2
DNCE 141	Dance Improvisation II	2
DNCE 145	Choreography I	2
DNCE 146	Choreography II	2
Two courses selected from the following classes:		
DNCE 148	Palomar Drum and Dance Ensemble	2,3
DNCE 190	Ethnic Dance Production	1.5, 2
DNCE 197B	Modern Dance Production	1,1.5
DNCE 197C	Jazz Dance Production	1,1.5
DNCE 197D	Theatre Dance Production	1,1.5
DNCE 197E	Ballet Dance Production	1,1.5
DNCE 197F	Rehearsal and Performance	.5,1,1.5,2,3
DNCE 197J	Tap Dance Production	1,1.5
TOTAL UNITS		**22.5 – 31**

*Should be taken the first semester

Recommended Courses: DNCE 101, 137, 148, 149, 170, 173, 184; MUS 100, 105, 137, 173; TA 100, 106, 115, 173; ZOO 200

NOTE: Students are screened for level placement in all technique classes the previous semester or the first day of class.

Dance

Provides student basic skills necessary for involvement in community dance activities, such as teaching in recreation centers, YMCA's or YWCA's, private studios; performing or choreographing for community theatre productions.

Certificate of Achievement

Program Requirements		Units
DNCE 100*	Survey of Dance	3
DNCE 101	Survey of World Dance	3
DNCE 105	Introduction to Dance History	3
DNCE 184	Introduction to Kinesiology	3
MUS 103	Introduction to Performing Arts	3
Three courses selected from the following classes:		
DNCE 115	Fundamentals of Ballet	1.5
DNCE 116	Ballet I	1.5
DNCE 210	Ballet II	1.5,2.5
DNCE 211	Pointe/Pas de Deux	1.5,2.5
Two courses selected from the following classes:		
DNCE 110	Modern Dance I	1.5
DNCE 111	Modern Dance II	1.5
DNCE 205	Modern Dance III	1,1.5
DNCE 206	Advanced Movement Patterns	1,1.5
Two courses selected from the following classes:		
DNCE 120	Jazz Technique I	1.5
DNCE 121	Jazz Technique II	1.5
DNCE 215	Jazz Technique III	1,1.5
DNCE 216	Advanced Dance Technique	1,1.5
One course selected from the following classes:		
DNCE 125	Theatre Dance I	1,1.5
DNCE 126	Theatre Dance II	1,1.5
DNCE 130	Tap Dance I	1,1.5
DNCE 131	Tap Dance II	1,1.5
DNCE 132	Tap Dance III	1,1.5
One course selected from the following classes:		
DNCE 140	Dance Improvisation I	2
DNCE 141	Dance Improvisation II	2
DNCE 145	Choreography I	2
DNCE 146	Choreography II	2
Two courses selected from the following classes:		
DNCE 148	Palomar Drum and Dance Ensemble	2,3
DNCE 190	Ethnic Dance Production	1.5, 2
DNCE 197B	Modern Dance Production	1,1.5
DNCE 197C	Jazz Dance Production	1,1.5
DNCE 197D	Theatre Dance Production	1,1.5
DNCE 197E	Ballet Dance Production	1,1.5
DNCE 197F	Rehearsal and Performance	.5,1,1.5,2,3
DNCE 197J	Tap Dance Production	1,1.5
TOTAL UNITS		**30-37**

*Should be taken the first semester

Recommended Courses: DNCE 101, 137, 148, 149, 170, 173, 184; MUS 100, 105, 137, 173; TA 100, 106, 115, 173; ZOO 200

NOTE: Students are screened for level placement in all technique classes the previous semester or the first day of class.

Dance Specialist for Children

Prepares the student to organize and teach programs of creative dance for children in schools, recreation departments, and other community projects.

Certificate of Achievement

Program Requirements		Units
DNCE 100*	Survey of Dance	3
DNCE 110	Modern Dance I	1,1.5
DNCE 111	Modern Dance II	1.5
DNCE 115	Fundamentals of Ballet	1,1.5
DNCE 140	Dance Improvisation I	2
DNCE 145	Choreography I	2
DNCE 161**	Teaching Methods in Dance	3
DNCE 184	Introduction to Kinesiology	3
CHDV 100 or	Child Development	
PE 102	PE in Elementary Schools	3
CE 100	Cooperative Education	1,2,3,4
TOTAL UNITS		**20.5 - 24.5**

* DNCE 100 is recommended as the first course to be taken in this certificate.

** DNCE 161 is recommended as the last course to be taken in this certificate.

COURSE OFFERINGS

Each activity may be taken four times for credit. Activity is defined to include all ability levels. (e.g., A student may take a total of only four Modern Dance courses for credit.) Modern Dance, Ballet, Jazz Technique, Tap Dance, Spanish Flamenco Dance, Ballroom Dance, Latin Social Dance, Dance Improvisation, Choreography, production classes and Theatre Dance classes are defined as activity courses.

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

DNCE 96 Special Projects (1,1.5,2,3)
2, 3, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Prerequisite: *Enrollment subject to project approval*
Participation in performance or research projects beyond those normally expected in regular class sessions.

DNCE 97 Rehearsal and Performance (.5,1,1.5,2,3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Prerequisite: *Enrollment subject to audition*
Participation in rehearsal and performance.

DNCE 97A Dance Topics (.5-4)
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*
Topics in Dance. See Class Schedule for specific topic offered. Course title will designate subject covered.

DNCE 100 Survey of Dance (3)
1½ hour lecture-3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Survey of present day dance forms through lecture, film, and movement participation. Lecture to focus on body mechanics, prevention of injuries, analysis of education and career opportunities, and dance as an art form. Movement emphasis on basic dance skills, terms, and concepts inherent in most dance forms. Includes working with basic ballet, modern, jazz, tap, musical theatre, and folk dance techniques and styles.

DNCE 101 Survey of World Dance (3)
1½ hour lecture-3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
An analysis of the dances, dance styles, costumes, and musical accompaniment of dances from around the world as experienced through films, lecture, demonstration, and movement participation.

DNCE 105 Introduction to Dance History (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A survey of the development of Eastern and Western dance from earliest

civilizations to the present including East Indian, Indonesian, Asian and Native American cultures, with emphasis on the development of dance as a performing art in Europe and America, and the African-American influence on the social and performance aspects of dance in the world today.

DNCE 110 Modern Dance I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 110, DNCE 111, DNCE 205*
Transfer acceptability: *CSU; UC*
Beginning dance techniques with emphasis on movement exploration, conditioning, and creative experience.

DNCE 111 Modern Dance II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 110*
Note: *May be taken 3 times; maximum of 4 completions in any combination of DNCE 110, DNCE 111, DNCE 205*
Transfer acceptability: *CSU; UC*
Intermediate dance techniques with emphasis on increasing movement skills and creative range.

DNCE 115 Fundamentals of Ballet (1,1.5)
2 or 3 hours lecture/laboratory
Recommended preparation: *DNCE 100*
Note: *Maximum of 4 completions in any combination of DNCE 115, DNCE 116, DNCE 210*
Transfer acceptability: *CSU; UC*
Introduction to ballet's traditions, principles, techniques, and terminology. Includes fundamental ballet exercises at barre and center with emphasis on placement.

DNCE 116 Ballet I (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 115*
Note: *Maximum of 4 completions in any combination of DNCE 115, DNCE 116, DNCE 210*
Transfer acceptability: *CSU; UC*
Continued study of ballet techniques, principles, and terminology. Intermediate/beginning level with emphasis on combinations and an enlarged vocabulary of steps and terms.

DNCE 120 Jazz Technique I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 120, DNCE 121, DNCE 215*
Transfer acceptability: *CSU; UC*
Beginning jazz movement and floor progressions.

DNCE 121 Jazz Technique II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 120*
Note: *Maximum of 4 completions in any combination of DNCE 120, DNCE 121, DNCE 215*
Transfer acceptability: *CSU; UC*
Intermediate jazz movement and floor progressions.

DNCE 123 Arts Across the Curriculum (3)
3 hours lecture
Note: *Cross listed as ART/MUS/TA 123*
Transfer acceptability: *CSU*
This course is an introduction to the artistic creative process through a comparative study of dance, music, theatre, and visual arts, within a social and cultural context. The principles of artistic perception, creative expression, cultural and historical context, and aesthetic valuing will be discussed.

DNCE 125 Theatre Dance I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 125, DNCE 126*
Transfer acceptability: *CSU; UC*
Dance steps and styles used in musical theatre, past and present. Basic partnering techniques also included.

DNCE 126 Theatre Dance II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 125*
Note: *Maximum of 4 completions in any combination of DNCE 125, DNCE 126*
Transfer acceptability: *CSU; UC*
A continuation of Theatre Dance I. Dance steps and styles used in musical theatre. Focus on stage projection, partnering, developing stage characters, and auditioning skills.

DNCE 127 Spanish Flamenco Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 127, DNCE 128*
Transfer acceptability: *CSU; UC*
Study of specific Spanish dance styles, castanets, steps, and techniques of Spanish/Flamenco dance.

DNCE 128 Intermediate Spanish Flamenco Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 127*
Note: *Maximum of 4 completions in any combination of DNCE 127, DNCE 128*
Transfer acceptability: *CSU; UC*
Study of different Spanish dance styles including regional, classical, Spanish/Flamenco, traditional and modern.

DNCE 130 Tap Dance I (1,1.5)
2 or 3 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 130, DNCE 131, DNCE 132*
Transfer acceptability: *CSU; UC*
Beginning skills in tap dance covering basic and traditional material.

DNCE 131 Tap Dance II (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 130*
Note: *Maximum of 4 completions in any combination of DNCE 130, DNCE 131, DNCE 132*
Transfer acceptability: *CSU; UC*
Intermediate level skills in tap dance with focus on new trends and styles.

DNCE 132 Tap Dance III (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 130 and 131*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 130, DNCE 131, DNCE 132*
Transfer acceptability: *CSU; UC*
Advanced skills in tap dance with focus on new trends and styles.

DNCE 133 Contemporary Social Dance (1)
2 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Development of beginning through intermediate levels of social dance techniques using West Coast Swing, Hustle, Night Club Two-Step, and Salsa.

DNCE 135 Beginning Ballroom Dance (1,1.5)
2 or 3 hours lecture/laboratory
Note: *Maximum of 4 completions in any combination of DNCE 135, DNCE 136*
Transfer acceptability: *CSU; UC*
Development of beginning social dance techniques concerning both standard and contemporary social dance steps and styling.

DNCE 136 Intermediate Ballroom Dance (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 135*
Note: *Maximum of 4 completions in any combination of DNCE 135, DNCE 136*
Transfer acceptability: *CSU; UC*
Intermediate level social dance skills, steps, and styling.

DNCE 137 Cuban and Brazilian Drumming I (1, 1.5, 2)
2, 3 or 4 hours lecture/laboratory
Note: *Cross listed as MUS 137*
Transfer acceptability: *CSU; UC*
Drum, percussion and song classes in the traditions of Escola de Samba from Rio de Janeiro, Brazil and Afro-Cuban traditions, Rumba, Congo, makuta from Cuba. Develop ability to work as part of a drum ensemble.

DNCE 138 Cuban and Brazilian Drumming II (1, 1.5, 2)
2, 3 or 4 hours lecture/laboratory
Prerequisite*: DNCE/MUS 137*
Note: *Cross listed as MUS 138*
Transfer acceptability: *CSU; UC*
Intermediate level drum, percussion and song classes in the traditions of Escola de Samba from Rio de Janeiro, Brazil and Afro-Cuban traditions, Rumba, Congo, makuta from Cuba. Develop ability to work as part of a drum ensemble.
*DNCE/MUS 138 pending Chancellor's Office approval at time of catalog publication.

DNCE 139 Advanced Ballroom Dance (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 136*
Transfer acceptability: *CSU; UC*
Advanced level social dance skills, steps, and styling.
*DNCE 139 pending Chancellor's Office approval at time of catalog publication.

DNCE 140 Dance Improvisation I (2)
2 hours lecture/2 hours laboratory
Note: *Maximum of 4 completions in any combination of DNCE 140, DNCE 141*
Transfer acceptability: *CSU; UC*
Study of dance through varied experiences in movement. Exploration of elements of time, space, and energy through movement improvisations and group studies.

DNCE 141 Dance Improvisation II (2)
4 hours lecture/laboratory
Prerequisite: *DNCE 140*
Note: *Maximum of 4 completions in any combination of DNCE 140, DNCE 141*
Transfer acceptability: *CSU; UC*
Study of dance through varied experiences in movement with emphasis on understanding movement principles, beginning music analysis, use of percussion and various forms of accompaniment, and composition of solo studies to composed music.

DNCE 145 Choreography I (2)
4 hours lecture/laboratory
Corequisite: *DNCE 197K*
Note: *Maximum of 4 completions in any combination of DNCE 145, DNCE 146*
Transfer acceptability: *CSU; UC*
Beginning choreography with emphasis on combining movements and developing ideas in relation to motivation, design, and dynamics.

DNCE 146 Choreography II (2)
4 hours lecture/laboratory
Prerequisite: *DNCE 145*
Corequisite: *DNCE 197K*
Note: *Maximum of 4 completions in any combination of DNCE 145, DNCE 146*
Transfer acceptability: *CSU; UC*
Choreography and the theatrical environment. Study of dance as communication with emphasis on relationship of feeling, form, and content.

DNCE 147 Repertory (1.5)
3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Previous dance training and performance experience. Knowledge and ability to perform different dance styles such as jazz, ballet, modern, musical theatre, etc.*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Learning, rehearsing, and performing dance routines as an outreach to Palomar College, area high schools, and the community.

DNCE 148 Palomar Drum and Dance Ensemble (2,3)
4 or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Transfer acceptability: *CSU; UC*
Rehearsal and performance of traditional music and dances of the African Diaspora: West African, Afro-Cuban, Afro-Brazilian, and Afro-Caribbean. Performance of original work influenced by dances of the African Diaspora. Emphasis will be on performing as an ensemble.

DNCE 149 Afro-Cuban/Brazilian Dance I (.5,1,1.5,2)
1½, 3, 4 ½, or 6 hours laboratory
Transfer acceptability: *CSU, UC*
Beginning level Afro-Cuban/Brazilian movement.

DNCE 150 Afro-Cuban/ Brazilian Dance II (.5, 1 , 1.5, 2)
1, 2, 3, or 4 hours lecture/laboratory
Prerequisite: *DNCE 149*
Transfer acceptability: *CSU; UC*
Intermediate level Afro-Cuban/Brazilian movement.
*DNCE 150 pending Chancellor's Office approval at time of catalog publication.

DNCE 151 Beginning Latin Social Dance (1,1.5,2)
2, 3 or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 151, DNCE 152*
Transfer acceptability: *CSU; UC*
An exhilarating class designed to introduce students to the vibrant Hispanic culture through contemporary social dances. Through demonstration and movement participation students will explore a variety of social dances that are all part of the Latin Diaspora.

DNCE 152 Intermediate Latin Social Dance (1,1.5,2)
2, 3 or 4 hours lecture/laboratory
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 151, DNCE 152*
Transfer acceptability: *CSU; UC*
An exhilarating class designed to continue exploring the vibrant Hispanic culture through contemporary social dances. Through demonstration and movement participation students will explore a variety of social dances that are all part of the Latin Diaspora.

DNCE 153 Capoeira: Afro/Brazil Martial Art I(1,1.5,2)
2, 3, or 4 hours lecture/laboratory
Transfer acceptability: *CSU;* UC *– Credit determined by UC upon review of course syllabus.*
A class designed to introduce students to the unique martial art form from Brazil known as Capoeira. Through lecture, demonstration and movement participation students will study this multi-faceted art form.

DNCE 154 Capoeira: Afro/ Brazil Martial Art II (1, 1.5, 2)
2, 3 or 4 hours lecture/laboratory
Prerequisite: *DNCE 153*
Transfer acceptability: *CSU; UC*
Intermediate level class of the unique martial art form from Brazil known as Capoeira. Through lecture, demonstration and movement participation students will study this multi-faceted art form.
*DNCE 154 pending Chancellor's Office approval at time of catalog publication.

DNCE 155 Hip Hop I (1, 1.5)
2 or 3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Beginning level of Hip Hop, an exhilarating class Designed to introduce students to this unique contemporary dance form.
*DNCE 155 pending Chancellor's Office approval at time of catalog publication.

DNCE 156 Hip Hop II (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE155*
Transfer acceptability: *CSU; UC*
Intermediate level of Hip Hop, an exhilarating class Designed to introduce students to this unique contemporary dance form.
*DNCE 156 pending Chancellor's Office approval at time of catalog publication.

DNCE 157 Hip Hop III (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE156*
Transfer acceptability: *CSU; UC*
Advanced level of Hip Hop, an exhilarating class Designed to introduce students to this unique Contemporary dance form.
*DNCE 157 pending Chancellor's Office approval at time of catalog publication.

DNCE 158 Hawaiian and Tahitian Dance I (1, 1.5)
2 or 3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Beginning level of an exhilarating class Designed to introduce students to the exotic Hawaiian and Tahitian culture through percussion, song and dance. Through demonstrations and movement participation students will explore a variety of dances from these two distinct and unique cultures that are part of the Polynesian Islands.
*DNCE 158 pending Chancellor's Office approval at time of catalog publication.

DNCE 159 Hawaiian and Tahitian Dance II (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 158*
Transfer acceptability: *CSU; UC*
Intermediate level of an exhilarating class Designed to introduce students to the exotic Hawaiian and Tahitian culture through percussion, song and dance. Through demonstrations and movement participation students will explore a variety of dances from these two distinct and unique cultures that are part of the Polynesian Islands.
*DNCE 159 pending Chancellor's Office approval at time of catalog publication.

DNCE 161 Teaching Methods in Dance (3)
3 hours lecture
Transfer acceptability: *CSU*
Explore the teaching/learning/knowing process by blending current educational, teaching and learning styles with practical hands on teaching experiences. Through the constant integration of theory and practice, we will utilize our own experiences and understanding and our interpretations of theoretical literature to construct our own persona pedagogies. The construction of a safe and consistent dance environment for all ages will be covered.

DNCE 165 Production Management (1.5,2)
3 or 4 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Principles and methods of organization, operation, promotion, programming, publicity, ticket sales, box office records, public relations, and graphics. Practical experience in college and community dance productions.

DNCE 170 Pilates® (.5,1)
1 or 2 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Pilates® method of body conditioning: an exercise program that improves muscle control, flexibility, coordination, strength, and tone. Teaches efficiency of movement.

DNCE 173 Musical Theatre Scenes (1)
3 hours laboratory
Note: *Cross listed as MUS 173 and TA 173*
Transfer acceptability: *CSU*
Rehearsal and performance of solo and group scenes from Broadway musicals dating from the 1930's to the present.

DNCE 182 Introduction to Arts Management (3)
9 hours laboratory
Note: *Cross listed as AMS 182, ART 182, MUS 182, and TA 182*
Transfer acceptability: *CSU*
An introduction to the principles and practices of arts management through an interdisciplinary study of management topics in the visual and performing arts.

DNCE 183 Internship in Arts Management (3)
9 hours laboratory
Prerequisite: *AMS/ART/MUS or TA 182*
Note: *Cross listed as AMS 183, ART 183, MUS 183, and TA 183*
Transfer acceptability: *CSU*
Practical experience in arts management in the visual and performing arts.

DNCE 184 Introduction to Kinesiology (3)
3 hours lecture
Transfer acceptability: *CSU*
Designed to provide students with sound knowledge of body structures, systems, and functions. Identify the technical demands of dance and sports and evaluate and implement approaches to long-range development as dancers/athletes. Experiential anatomy will be introduced with concepts necessary to develop analytical skills of the student.

DNCE 190 Ethnic Dance Production (1.5,2)
3 or 4 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 192 Tap and Theatre Dance (1, 1.5)
2 or 3 hours lecture/laboratory
Transfer acceptability: *CSU; UC*
Introduction to the fundamental skills in tap and theatre dance covering basic and traditional material.

DNCE 197A Summer Dance Workshop (1,1.5,2,3)
2, 3, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Concentrated work in a variety of dance areas. Specific content of each workshop differs and is composed of dance styles and techniques not included in the regular dance curriculum.

DNCE 197B Modern Dance Production (1,1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 111 or 205*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197C Jazz Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 121 or 215*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197D Theatre Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197E Ballet Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 210*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197F Rehearsal and Performance (.5,1,1.5,2,3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Participation in dance rehearsal and performance.

DNCE 197H Topics in Dance (.5-4)
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; UC – Credit determined by UC upon review of course syllabus.*
Topics in Dance. See Class Schedule for specific topic offered. Course title will designate subject covered.

DNCE 197J Tap Dance Production (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *Enrollment subject to audition*
Recommended preparation: *Concurrent enrollment in DNCE 131 or 132*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 197K Student Choreography Production (1.5, 2)
3 or 4 hours lecture/laboratory
Corequisite: *DNCE 145 OR DNCE 146*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC*
Rehearsal and performance for dance concerts.

DNCE 205 Modern Dance III (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 111*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 110, DNCE 111, DNCE 205*
Transfer acceptability: *CSU; UC*
Advanced dance technique with emphasis on performance skills.

DNCE 206 Advanced Movement Patterns (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 205*
Transfer acceptability: *CSU; UC*
Advanced level dance technique in experimental dance forms.

DNCE 210 Ballet II (1.5,2.5)
3 or 5 hours lecture/laboratory
Prerequisite: *DNCE 116*
Note: *May be taken 4 times; maximum of 4 completions in any combination of DNCE 115, DNCE 116, DNCE 210*
Transfer acceptability: *CSU; UC*
Ballet techniques, principles, and terminology at the intermediate level with emphasis on line, phrasing, endurance, and progressively difficult steps and combinations.

DNCE 211 Pointe/Pas de Deux (1.5,2.5)
3 or 5 hours lecture/laboratory
Prerequisite: *DNCE 210*
Note: *May be taken 3 times*
Transfer acceptability: *CSU; UC*
Beginning pointe and partnering techniques in classical dance.

DNCE 215 Jazz Technique III (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 121*
Note: *Maximum of 4 completions in any combination of DNCE 120, DNCE 121, DNCE 215*
Transfer acceptability: *CSU; UC*
Advanced jazz movement and floor progressions.

DNCE 216 Advanced Dance Technique (1, 1.5)
2 or 3 hours lecture/laboratory
Prerequisite: *DNCE 215*
Transfer acceptability: *CSU; UC*
Advanced level dance technique in commercial dance stylizations and rhythms.

DNCE 297 Experimental Projects in Dance (.5,1,1.5,2,3)
1, 2, 3, 4, or 6 hours lecture/laboratory
Prerequisite: *Enrollment subject to project approval*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Advanced dance projects including individual research, tutoring, and performance for college classes and community projects.

Dental Assisting (DA)

Contact the Dental Assisting Program for further information, (760) 744-1150, ext. 2571.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

The Dental Assisting Program is accredited by the Commission on Dental Accreditation of the American Dental Association, and is approved by the Dental Board of California.

Certification and Licensing. Upon successful program completion, student will be issued a Certificate of Proficiency in Dental Radiography issued by Palomar College. Students who successfully complete the program are eligible to apply for the California Registered Dental Assistant Examination to become licensed as a California Registered Dental Assistant (RDA) with a Coronal Polishing Certificate; and are eligible to apply for the nationally recognized Certified Dental Assistant Examination offered by the Dental Assisting National Board, Incorporated (DANB).

ADMISSION REQUIREMENTS
Admission to the Dental Assisting Program is by special application. To be eligible for admission, applicants must:

1) Complete Palomar College Application for Admission;
2) Attend a Dental Assisting orientation meeting;
3) Submit proof of high school graduation or equivalency;
4) Admit medical and dental clearances including TB test results; and
5) Meet academic requirements as specified in the Dental Assisting Program brochure.

Dental assistants need to have good vision, hearing, and the ability to communicate orally. In addition, they must have the ability to comprehend and interpret written information; and the dexterity to use small dental instruments.

Dental Assisting (Registered Dental Assistant)

A.A. Degree Major or Certificate of Achievement

To remain enrolled in the program, students must earn a minimum grade of "C" (2.0) in each of the required courses. Students must pass laboratory and clinical evaluations at 75% competency or a substandard grade will be assigned for the course. A student may fail a dental assisting course on the basis of clinical practice even though theory grades may be passing.

Program Requirements		Units
DA 50	Introduction to Dental Sciences/Occupations	3
BUS 125 or	Business English	
ENG 50 or	Introductory Composition	
ENG 100	English Composition	3,4
SPCH	Any course (except 145, 150, and 197)	3

EME 55 or	CPR for Health Care Providers	
Proof of current BLS for Healthcare Providers Certificate		0, .5

First Semester

DA 57	Dental Sciences and Anatomy	4
DA 60	Dental Materials	3
DA 65	Dental Practice Management	2
DA 70	Dental Radiography I	2.5
DA 75	Dental Operative Procedures	5
DA 80	Coronal Polishing	1

Second Semester

DA 71	Dental Radiography II	.5
DA 81	Clinical Coronal Polishing	.5
DA 85	Advanced Dental Procedures	4
DA 90	Clinical Rotation	6.5
TOTAL UNITS		**38-39.5**

COURSE OFFERINGS

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

DA 47 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, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Credit/No Credit grading only; may be taken 4 times*
Topics in Dental Assisting. See Class Schedule for specific topic offered. Course title will designate subject covered.

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; psychology and observation in dental offices.

DA 57 Dental Sciences and Anatomy (4)

4 hours lecture
Prerequisite: *Admission to the 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 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 Dental Assisting Program*
Note: *Graded only*
Reception and care of the patient in the dental office, communication skills, telephone techniques, appointment scheduling, dental records (charting health and dental history), filing, recalls, bookkeeping, accounts receivable and accounts payable, purchasing inventory, principles of and use of insurance forms and collections.

DA 70 Dental Radiography I (2.5)

2 hours lecture- 1.5 hours laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Theory and technique of oral radiography, radiation hygiene, anatomical landmarks, and methods and materials for processing radiographs. The laboratory portion will provide the student with knowledge concerning film placement, cone angulation, exposing and developing radiographs, and mounting and evaluating processed films.

DA 71 Dental Radiography II (.5)

1.5 hours laboratory
Prerequisite: *DA 50; DA 70; and proof of Hepatitis B Immunization; and EME 55 or current BLS for Healthcare Providers Certificate*
Note: *Graded only*
Advanced experience regarding film placement, cone angulation, exposing and developing radiographs, mounting and evaluating films to further enhance the student's patient management skills.

DA 75 Dental Operative Procedures (5)

3 hours lecture-6 hours laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Applications of and introduction to preclinical dental assisting in operative and specialty dental procedures, care of equipment, instrumentation, sterilization techniques, disease transmission, charting, utilization of dental materials, dental office emergencies, and functions delegated to the California Registered Dental Assistant.

DA 80 Coronal Polishing (1)

2 hours lecture/laboratory
Prerequisite: *Admission to the Dental Assisting Program*
Note: *Graded only*
Identification of dental plaque, other soft deposits, tooth stains, discolorations, periodontics, and deposit retention factors. Polishing procedures: Polishing agents, prophylaxis angle, attachments, and technique.

DA 81 Clinical Coronal Polishing (.5)

1.5 hours laboratory
Prerequisite: *DA 50; DA 80; proof of Hepatitis B Immunization; and EME 55 or current BLS for Healthcare Providers Certificate*
Note: *Graded only; may be taken 2 times*
Application of concepts and skills from pre-clinical DA 80. Emphasis is on the coronal polishing procedure as applied to clinical patients.

DA 85 Advanced Dental Procedures (4)

2 hours lecture-6 hours laboratory
Prerequisite*: DA 50; DA 60; and DA 75; proof of Hepatitis B Immunization; and EME 55 or 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 for preliminary impressions, 4) fabrication of provisional restorations, and 5) advanced prosthodontic and orthodontic instruction.

DA 90 Clinical Rotation (6.5)

19½ hours laboratory/clinical
Prerequisite: *DA 50; DA 75; proof of Hepatitis B Immunization; and EME 55 or current BLS for Healthcare Providers Certificate*
Note: *Credit/No Credit only*
An intensive program of practical dental experiences, working with patients and staff at the Camp Pendleton Naval Dental Clinic 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, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Credit/No Credit 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

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

Diesel Technology

A.A. Degree Major or Certificate of Achievement

Program Requirements		Units
AT 105	Automotive Electricity	2
AT 197	Associated Studies in Automotives	3
DMT/RDMT 50	Introduction to Diesel Mechanics	3
DMT/RDMT 55	Hvy-Dty Diesel Tune-Up/Analysis	3
DMT/RDMT 61	Diesel Engine Rebuilding I	3
DMT/RDMT 62	Diesel Engine Rebuilding II	3
DMT/RDMT 65	Air Brake Systems	3
DMT/RDMT 66	Truck Transmission/Drive Lines	3
IT 100	Technical Mathematics	3
Electives (Select 6 units)		
AT 125	Automotive Machining	3
CE 100	Cooperative Education	1,2,3,4
DMT 54	Heavy-Duty Electricity	3
DMT 56	Alternative Fuels	3
DMT/RDMT 70	Med-Duty Diesel Engine Tune-up	3
DMT 81	Basic Hydraulics	3
DMT 96	Special Problems/Diesel Tech	.5-3
DMT/RDMT 97	Diesel Mechanics Tech Workshop	.5-3
WELD 100	Welding I	3
TOTAL UNITS		**32**

The Diesel Technology program is also offered in ROP Diesel Mechanics Technology.

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

DMT 50 Introduction to Diesel Mechanics (3)
6 hours lecture/laboratory
Note: *Cross listed as RDMT 50*
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 (3)
6 hours lecture/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 (3)
2 hours lecture-4 hours laboratory
Prerequisite: *DMT/R DMT 50;*
Note: *Cross listed as R DMT 55; 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)
6 hours lecture/laboratory
Recommended preparation: *DMT/R DMT 50*
Note: *May be taken 2 times*
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 (3)
6 hours lecture/laboratory
Recommended preparation: *DMT/R DMT 50*
Note: *Cross listed as RDMT 61; 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 (3)
6 hours lecture/laboratory
Recommended preparation: *DMT/R DMT 61*
Note: *Cross listed as R DMT 62*
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)
2 hours lecture-3 hours laboratory
Note: *Cross listed as RDMT 65*
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)
2 hours lecture-3 hours laboratory
Note: *Cross listed as RDMT 66*
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 (3)
2 hours lecture-4 hours laboratory
Note: *Cross listed as RDMT 70; 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)
2 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, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Prerequisite: *DMT/R 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, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: *Cross listed as RDMT 97; 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

COURSE OFFERINGS

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

DR 5 Personal Adjustment and Growth (2)
1½ hours lecture-1½ hours laboratory
Note: *May be taken 3 times*
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)
½ hour lecture
Note: *Open entry/Open exit; Credit/No Credit grading only; may be taken 2 times*
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: *Credit/No Credit grading only; may be taken 4 times*
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*
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: *Credit/No Credit grading only; may be taken 4 times*
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)
1½ or 3 hours lecture
Recommended preparation: *MATH 15 or eligibility for MATH 50*
Note: *Credit/No Credit grading only; may be taken 4 times*
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)
3 hours lecture
Recommended preparation: *ENG 10 or eligibility for ENG 50*
Note: *May be taken 2 times*
This class is designed to help students with disabilities improve their intermediate composition skills through methods and strategies specific to their disabilities.

DR 31 Language Development (1,2)
2 or 4 hours lecture/laboratory
Note: *May be taken 4 times*
This course is for the student with communication problems relating to language processing. The course will include assessment, theory, facilitation techniques, and use of special devices.

DR 35 Speech and Language Development: Articulation, Fluency, and Voice Problems (3)
3 hours lecture
Note: *May be taken 4 times*
For students with communication problems relating to articulation, rate/fluency, and voice. It includes assessment, theory, physiology, and management strategies.

DR 40 Adapted Computer Skills (3)
3 hours lecture
Note: *May be taken 3 times*
This course is designed to meet the needs of the students with disabilities. Students learn to use computers with access technology such as voice recognition, screen readers, screen enlargement and other hardware adaptations.

DR 41 Advanced Adapted Computers for Students with Disabilities (3)
3 hours lecture
Recommended preparation: *DR 40*
Note: *May be taken 3 times*
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 45L Adapted Computer Laboratory (1)
3 hours laboratory
Note: *Credit/No Credit grading only; may be taken 4 times*
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*
Topics in disability resource. See Class Schedule for specific topic offered. Course title will designate subject covered.
*DR 47 pending Chancellor's Office approval at time of catalog publication

Drafting Technology (DT)

Contact the Design and Consumer Education Department for further information, (760) 744-1150, extension 2349

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAMS OF STUDY

Architectural Drafting Technology

Prepares students for employment as a design/production drafter in the field of architecture.

Students concerned with transfer into an architectural program at a university should review specific course requirements with their architectural instructor and the Counseling Department.

A.A. Degree Major or Certificate of Achievement

Program Requirements		Units
DT 105	Basic Architectural Drafting	3
DT 120 or	Architectural History	
DT 121	Multicultural Architectural History	3
DT/RDT 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 135	Architectural Materials/Methods Construction	3
DT 144	Architectural Drawing and Color	3
DT 145	Architectural Delineation/Pictorial Drawing	4
DT 155	Architectural Theory	2
DT/RDT 200*	Advanced Computer Aided Architectural Drafting	4
IT 100	Technical Mathematics	3

Group One (Select 3 units)		
DT 120 or	Architectural History	
DT 121	Multicultural Architectural History	3
Group Two (Select 9 units)		
DT 100	Basic Mechanical Drawing	3
DT 129	Basic Architectural Drafting w/AutoCAD	3
DT/RDT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT/RDT 127	AutoCAD Customization	3
DT/RDT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max - Advanced 3D Modeling/Animation	3
DT/RDT 202	Advanced Comp Aided Architectural Drafting II	4
DT 215	Architectural Design Fundamentals I	5
DT 216	Architectural Design Fundamentals II	5
CE 100	Cooperative Education	1,2,3,4
CE 105	Job Hunting Techniques	1,2,3
CSIS 105	Computer Concepts/Microcomputer	3
MATH 115	Trigonometry	3
TOTAL UNITS		**40**

*DT 106 may be substituted for DT 200.

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**
CSIS 105	Computer Concepts/Microcomputer	3
DT/RDT 125	AutoCAD Introduction to Computer Aided Drafting	3
DT/RDT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT/RDT 127	AutoCAD Customization	3
DT/RDT 128	SolidWorks Intro to 3D Design and Presentation	3
IT 100	Technical Mathematics	3
Electives (Select 12 units)		
DT 110	Technical Drafting I with AutoCAD	4
DT 111	Technical Drafting II with AutoCAD	4
DT 140	Electronic Drafting and Design	3
DT 145	Architectural Delineation/Pictorial Drawing	3
DT 196B	Special Problems/CAD	1,2,3
DT 200	Advanced Computer Aided Architectural Drafting	4
DT 210	Printed Circuit Board Design	3
BUS 205	Business Writing	3
CE 100	Cooperative Education	1,2,3,4
CE 105	Job Hunting Techniques	1,2,3
MATH 110	College Algebra	4
MATH 115	Trigonometry	3
TOTAL UNITS		**30**

Drafting Technology - Multimedia

Prepares students in the skills necessary for employment in the multimedia presentation field.

A.A. Degree Major or Certificate of Achievement

Program Requirements		**Units**
DT/RDT 125	AutoCAD Introduction to Computer Aided Drafting	3
DT/RDT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT/RDT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max - Advanced 3D Modeling/Animation	3
DT 184	Real Time 3D Technical/Game Animation	2
IT 100	Technical Mathematics	3
Electives (Select 12 units)		
ART 241	Computer Graphics	3
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
CE 100	Cooperative Education	1,2,3,4
CE 105	Job Hunting Techniques	1,2,3
COMM 100	Mass Media in America	3
CSIS/ RCSIS 120	Microcomputer Applications	3
DT/RDT 130	CAD/CAM Machining	3
DT/RDT 131	SolidWorks Adv to 3D Design and Presentation	3
DT 196B	Special Problems/CAD	3
GC/RGC 140	Digital Imaging/Photoshop I	3
GC/RGC 200	Introduction to Multimedia	3
GC 201	Intermediate Multimedia	3
MATH 50 or	Beginning Algebra	
MATH 60 or	Intermediate Algebra	
MATH 110 or	College Algebra	
MATH 115	Trigonometry	3,4
MUS 180	Computer Music I	3
TOTAL UNITS		**32**

Drafting Technology - Technical

Prepares students in the skills necessary for employment as a drafter in machine, mechanical-electrical, aeronautical, civil, and other related engineering fields.

A.A. Degree Major or Certificate of Achievement

Program Requirements		**Units**
DT 100	Basic Mechanical Drawing	3
DT 110	Technical Drafting I with AutoCAD	4
DT 111	Technical Drafting II with AutoCAD	4
DT/RDT 125	AutoCAD Intro to Computer Aided Drafting	3
DT/RDT 126	AutoCAD Inter Computer Aided Drafting	3
DT/RDT 127	AutoCAD Customization	3
DT/RDT 128	SolidWorks Intro to 3D Design and Presentation	3
IT 100	Technical Mathematics	3
Electives (Select 6 units)		
CE 100	Cooperative Education	1,2,3,4
CE 105	Job Hunting Techniques	1,2,3
CSIS/ RCSIS 120	Microcomputer Applications	3
DT 70	Drawing/Constr/Cabinet/Millwork	3
DT/RDT 130	CAD/CAM Machining	3
DT/RDT 131	SolidWorks Adv 3D Design and Presentation	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max - Advanced 3D Modeling/Animation	3
DT 184	Real Time 3D Technical/Game Animation	2
DT 196B	Special Problems in CAD	1,2,3
MATH 50 or	Beginning Algebra	
MATH 60 or	Intermediate Algebra	
MATH 110 or	College Algebra	
MATH 115	Trigonometry	3,4
SURV 105	Topographic Mapping	3
TOTAL UNITS		**32**

Electro-Mechanical Drafting and Design

Drafts detailed working drawings of electro-mechanical equipment and devices. Indicates dimensions, materials, and manufacturing procedures for electronic industry.

A.A. Degree Major or Certificate of Achievement

Program Requirements		**Units**
DT 110	Technical Drafting I with AutoCAD	4
DT 111	Technical Drafting II with AutoCAD	4
DT/RDT 125	AutoCAD Introduction to Computer Aided Drafting	3
DT/RDT 127	AutoCAD Customization	3
DT/RDT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 140	Electronic Drafting and Design	3
DT 210	Printed Circuit Board Design	3
IT 100	Technical Mathematics	3
Electives (Select 6 units)		
BUS 205	Business Writing	3
CE 100	Cooperative Education	1,2,3,4
CSIS/ RCSIS 120	Microcomputer Applications	3
DT/RDT 126	AutoCAD Intermediate Computer Aided Drafting	3
DT/RDT 131	SolidWorks Adv 3D Design and Presentation	3
DT/RDT 130	CAD/CAM Machining	3
DT 196B	Special Problems in CAD	3
DT 211	Advanced Printed Circuit Design	3
ECHT 160	Electronics for Everyone	3
MATH 110	College Algebra	4
TOTAL UNITS		**32**

Interactive Media Design

The Interactive Media Design program is also offered in Art and Graphic Communications.

Prepares students with specific skills necessary for employment in the field of multimedia design and production. Students may choose an emphasis in either 3D modeling and animation, which emphasizes production skills and authoring systems, or multimedia design, which emphasizes content development and visual design of multimedia productions. Both areas of emphasis collaborate on an actual multimedia production.

A.A. Degree Major or Certificate of Achievement

Emphasis in 3D Modeling and Animation

Program Requirements		Units
ARTI 100	Introduction to Illustration	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max - Advanced 3D Modeling/Animation	3
GC/RGC 140	Digital Imaging/Photoshop I	3
GC 204	Motion Graphics for Multimedia-A	3
Electives (Select two courses)		
ART 241	Computer Graphics	3
ART 248	Character Animation	1.5
ARTD 150	Digital Concepts and Techniques in Art	3
ARTD 220	Motion Design	3
DT/RDT 128	SolidWorks Intro to 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
GC 142	Digital Imaging/Photoshop III	3
GC 201	Intermediate Multimedia	3
ENTT/RTV 120	Basic Television Production	3
RTV 124	Staging and Lighting for Television	3
TOTAL UNITS		**24.5 - 27**

Emphasis in Multimedia Design

Program Requirements		Units
ART 111	Graphic Design	3
ARTD 220	Motion Design	3
ARTI 247	Digital 3D Design and Animation	3
GC 142	Digital Imaging/Photoshop III	3
GC/RGC 200	Introduction to Multimedia	3
GC 201	Intermediate Multimedia	3
GC 204	Motion Graphics for Multimedia-A	3
Electives (Select two courses)		
ARTD 150	Digital Concepts and Techniques in Art	3
ARTI 246	Digital 3D Design and Modeling	3
DT 180	3D Studio Max – Intro to 3D Modeling/Animation	3
DT 182	3D Studio Max - Advanced 3D Modeling/Animation	3
GC 100	Graphic Communications	3
GC/RGC 140	Digital Imaging/Photoshop I	3
GC/RGC 152	Desktop Publishing with Illustrator	3
GC/ART 197	Multimedia Project	3
GC/RGC 202	Web Page Layout I	3
GC 206	Web Multimedia	3
MUS 180	Computer Music I	3
RTV 170	Introduction to Video Editing	3
TOTAL UNITS		**27**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

DT 70 Drawing for the Construction/Cabinet/Millwork Trades (3)
2 hours lecture-3 hours laboratory
Note: *Cross listed as CFT 70*
Planning, drawing, interpreting, estimating construction, and cabinetwork and millwork drawing.

DT 100 Basic Mechanical Drawing (3)
2 hours lecture-3 hours laboratory
Transfer acceptability: *CSU*
Fundamentals of mechanical drawing including theory, lettering, sketching, geometric constructions, orthographic projection, sectioning, developments, dimensioning, and pictorial and working drawings.

DT 105 Basic Architectural Drafting (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
An introduction to architectural drafting including symbols, lettering, construction principles, details, and codes as related to the development of working drawings for simple residential design.

DT 106 Intermediate Architectural Drafting (3)
6 hours lecture/laboratory
Prerequisite: *DT 105*
Transfer acceptability: *CSU*
A continued study in residential design including study in details, materials, elevations, specifications, electrical, and plumbing.

DT 110 Technical Drafting I with AutoCAD (4)
8 hours lecture/laboratory
Prerequisite: *Completion of, or concurrent enrollment in, DT/R DT 125*
Transfer acceptability: *CSU*
Fundamentals of drafting including lettering, sketching, instruments, geometric constructions, orthographic projections, dimensioning, tolerancing, sectional views and auxiliary views. Drafting will be performed on the computer using AutoCAD software.

DT 111 Technical Drafting II with AutoCAD (4)
8 hours lecture/laboratory
Prerequisite: *DT 110 and DT/R DT 125*
Transfer acceptability: *CSU*
The study of Advanced Drafting practices using AutoCAD software. Basic studies will lead into geometric dimensioning, tolerancing, pictorial drafting, descriptive geometry and revolutions. Working/shop drawings in topography, developments, cabinet/millwork, structural steel, and welding will be performed.

DT 116 Geometric Dimensioning and Tolerancing (3)
6 hours lecture/laboratory
Prerequisite: *DT 100*
Transfer acceptability: *CSU*
Note: *May be taken 2 times*
An introduction to geometric dimensioning and tolerancing as used in the electro/mechanical industry. The student will learn to identify and use appropriate geometric symbols and techniques of geometric dimension and produce industrial quality drawings.

DT 120 Architectural History (3)
3 hours lecture
Transfer acceptability: *CSU; UC – DT 120 and 121 combined: maximum credit, one course*
An overview of architectural history beginning with prehistoric cultures and continuing through Egyptian and Mesopotamia, Aegean and Greek, Roman and Byzantine, Romanesque and Gothic, and the Renaissance and Baroque periods. The second half of the course focuses on the development of modern western architecture.

DT 121 Multicultural Architectural History (3)
3 hours lecture
Transfer acceptability: *CSU; UC – DT 120 and 121 combined: maximum credit, one course*
A comparative study of the architecture of cultures outside the Western mainstream including: Pre-Columbian America; India and Southeast Asia, China and Japan, Russia and Eastern Europe; and the Moslem Empires. Special emphasis on the cultural forces and conditions which shaped and evolved the architecture.

DT 125 AutoCAD Introduction to Computer Aided Drafting (3)
6 hours lecture/laboratory
Note: *Cross listed as R DT 125; may be taken 2 times; maximum of 4 completions in any combination of DT/R DT 125, DT/R DT 126, DT/R DT 127*

Transfer acceptability: *CSU; UC – DT 125 and 126 combined: maximum credit, one course*
An introduction to computer aided drafting using AutoCAD software and IBM compatible computers. Hands-on experience with AutoCAD to include the following operations: preparing and editing drawings, storage and retrieval of drawings, and production of commercial quality drawings on a plotter. Introductory computer terminology and techniques in Windows.

DT 126 AutoCAD Intermediate Computer Aided Drafting (3)
6 hours lecture/laboratory
Prerequisite: *DT 125/R DT 125*
Note: *Cross listed as R DT 126; may be taken 2 times; maximum of 4 completions in any combination of DT/R DT 125, DT/R DT 126, DT/R DT 127*
Transfer acceptability: *CSU; UC – DT 125 and 126 combined: maximum credit, one course*
Advanced theory and hands-on operation of a CAD system. Emphasis is placed on large scale drawings, three- dimensional software techniques, orthographic projections, and complex computer aided manufacturing applications.

DT 127 AutoCAD Customization (3)
6 hours lecture/laboratory
Prerequisite: *DT/R DT 126*
Note: *Cross listed as R DT 127; may be taken 2 times; maximum of 4 completions in any combination of DT/R DT 125, DT/R DT 126, DT/R DT 127*
Transfer acceptability: *CSU; UC*
Advanced theory and hands-on operation of a CAD system. Emphasis is placed on increased productivity using customization and portfolio presentation for successful career opportunities

DT 128 SolidWorks Introduction to 3D Design and Presentation (3)
6 hours lecture/laboratory
Prerequisite: *DT/R DT 125*
Recommended preparation: *DT 110*
Note: *Cross listed as R DT 128; may be taken 2 times*
Transfer acceptability: *CSU*
Advanced theory and hands-on operation of three-dimensional software techniques. Emphasis is placed on wireframe, surface, solid, and parametric three-dimensional modeling.

DT 129 Basic Architectural Drafting with Auto CAD (3)
6 hours lecture /laboratory
Basic fundamentals of architectural drafting using AutoCAD software to include the following drawings: plot plans, floor plans, foundation plans, framing plans, sections, elevations, and basic construction details.

DT 130 CAD/CAM Machining (3)
6 hours lecture/laboratory
Prerequisite: *DT 110 and DT/R DT 128*
Note: *Cross listed as R DT 130; may be taken 2 times*
Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

DT 131 SolidWorks Advanced 3D Design and Presentation (3)
6 hours lecture/laboratory
Prerequisite: *DT/R DT 128*
Note: *Cross listed as R DT 131; may be taken 2 times*
Transfer acceptability: *CSU*
Advanced theory and hands-on operation of solid and parametric three-dimensional models. Emphasis is placed on creating molds, advanced sheet metal design and developing dynamic assemblies.

DT 135 Architectural Materials and Methods of Construction (3)
6 hours lecture/laboratory
Transfer acceptability: *CSU*
An introduction to the use and application of building construction materials and processes.

DT 140 Electronic Drafting and Design (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Electro-mechanical drafting and design generally required for an entry-level position in the electronic industry.

DT 144 Architectural Drawing and Color (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*

Transfer acceptability: *CSU; UC*
An introduction to basic architectural drawing and design that explores the theory and application of perspective, shades and shadows, and color to architectural sketching, drawing, and model building.

DT 145 Architectural Delineation and Pictorial Drawing (4)
8 hours lecture/laboratory
Recommended preparation: *DT/R DT 125 and DT 144*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC*
Principles and techniques of pictorial drawing in architecture including isometric, oblique, and perspective projection; shades and shadows; and presentation graphics. The three-dimensional and shading capabilities of AutoCAD will be utilized in coordination with the use of Photoshop software as a color rendering tool.

DT 155 Architectural Theory (2)
4 hours lecture/laboratory
Transfer acceptability: *CSU*
A study and analysis of the concepts and philosophies that have influenced or been the basis of architectural form from the Classical period to the present. The analysis will include the use of drawing and model-building tools to gain an understanding of these principles applied to specific structures throughout history.

DT 180 3D Studio Max – Introduction to 3D Modeling and Animation (3)
6 hours lecture/laboratory
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
An overview of 3D Studio Max. Hands-on operation of the software to produce basic three-dimensional models and basic technical animations.

DT 182 3D Studio Max – Advanced 3D Modeling and Animation (3)
6 hours lecture/laboratory
Prerequisite: *DT 180*
Note: *May be taken 2 times*
Transfer acceptability: *CSU*
Advanced 3D Studio Max applications to create special visual effects for high-end image production. Advanced keyframing, time-based editing, controllers, and video post will be employed to master state-of-the-art rendering and animation. The class is structured to help students start using 3D Studio Max in a production environment.

DT 184 Real Time 3D Technical/ Game Animation (2)
4 hours lecture/laboratory
Students will create interactive 3D applications using a direct X base real time engine for the game industry, computer based training and product visualization.

DT 196A Special Problems in Drafting (1,2,3)
2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
This course is designed to aid the student in the enrichment of the area of concentration in drafting and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

DT 196B Special Problems in Computer Aided Drafting (1,2,3)
2, 4, or 6 hours lecture/laboratory
Note: *May be taken 4 times for a maximum of 9 units*
Transfer acceptability: *CSU*
This is an advanced course designed to aid the student in the enrichment of an area of concentration in AutoCAD and third party drafting software and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

DT 197 Drafting Technology Topics (.5-4)
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 Drafting. See class schedule for specific topic covered. Course title will designate subject covered.

DT 200 Advanced Computer Aided Architectural Drafting (4)
8 hours lecture/laboratory
Prerequisite: *DT/R DT 125 and completion of, or concurrent enrollment in, DT 105*
Note: *Cross listed as R DT 200; may be taken 2 times*
Transfer acceptability: *CSU*
Advanced techniques in the operation of AutoCAD software for architectural applications on IBM-compatible computers. Preparation of various architectural working drawings from a preliminary residential design.

DT 202 Advanced Computer Aided Architectural Drafting II (4)
8 hours lecture/laboratory
Recommended preparation: *DT/R DT 200*
Note: *Cross listed as R DT 202; may be taken 2 times*
Transfer acceptability: *CSU*
Third-party architectural software for use in conjunction with AutoCAD software. Preparation of 3D architectural models and their manipulation for preparation of individual architectural working drawings including: dimensioned floor plans, building sections, elevations, etc.

DT 210 Printed Circuit Board Design (3)
6 hours lecture/laboratory
Prerequisite: *DT 140*
Transfer acceptability: *CSU*
Instruction in printed circuit board design generally required for entry-level positions in the electronic industry. Includes artwork and complete documentation for analog and digital multi-layer, flexible and high-speed boards using current IPC standards. Drafting will be performed on the computer using high-end printed circuit board software.

DT 211 Advanced Printed Circuit Board Design (3)
6 hours lecture/laboratory
Prerequisite: *DT 210*
Note: *May be taken 2 times*
Advanced problems and instruction in printed circuit board design generally required for entry-level position in the electronic industry. Special emphasis will be placed on advanced applications including surface mount technology. Includes artwork and complete documentation for analog and digital multi-layer, flexible and high-speed boards using current IPC standards. Drafting will be performed on the computer using AutoCAD and PADS software.

DT 215 Architectural Design Fundamentals I (5)
10 hours lecture/laboratory
Recommended preparation: *DT 144 and DT 155*
Transfer acceptability: *CSU**; UC***
Development of problem solving and analytical skills in architectural design involving consideration of factors of architectural form in two- and three-dimensional compositions, and design concepts and applications.

DT 216 Architectural Design Fundamentals II (5)
10 hours lecture/laboratory
Recommended preparation: *DT 145 and DT 215*
Transfer acceptability: *CSU; UC*
Complex architectural problems involving consideration of factors of structure, site, and climate.

Earth Sciences (ES)

Contact the Earth Sciences Department for further information, (760) 744-1150, ext. 2512.

COURSE OFFERINGS

ES 100 The Earth as a System (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An overview of the fields of geology, geography, oceanography, and astronomy that approach Earth as a system. Areas of study include those related to plate tectonics, earthquakes, volcanoes, geologic time, landscape evolution, weather systems, ocean circulation, climate change, and exploration of the solar system.

ES 105 Earth System Science: Climate Change (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Introduction to the science of global change that includes an overview of the international political debate and the mechanisms of the climate system. Topics also examine climate change on different time scales including the Ice Ages and the outlook for climate change.

ES 110 Earth System Science: Life in the Universe (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Introduction to astrobiology, a multi-disciplinary field of science that investigates questions related to life on Earth, the nearby Solar System, and the Universe in general. Students will gain an appreciation of many fields of science as they apply to one of the most profound questions one can ask about our world: Are we the only life in the universe?

Economics (ECON)

Contact the Economics, History and Political Science Department for further information, (760) 744-1150, ext. 2412. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

Economics

Provides lower division preparation for pursuing advanced studies in economics or prepares a complementary base for many professions and areas of interest including business administration, law, engineering, journalism, public administration, and environmental studies. Transfer students should consult the four-year college or university catalog for specific requirements or see a Palomar College counselor.

A.A. Degree Major or Certificate of Achievement

Program Requirements		**Units**
ECON 101	Principles of Economics (Macro)	3
ECON 102	Principles of Economics (Micro)	3
Group I (Select 3 units)		
ECON 295	Directed Study in Economics	3
ECON 110	Comparative Economic Systems	3
ECON 115	Economic History of the United States	3
IBUS 100	Intro to Int'l Business Management	3
Group II (Select 7-8 units)		
MATH 110	College Algebra	4
MATH 130	Calculus for the Social Sciences	4
MATH 120	Elementary Statistics	3
Group III (Select 6 units)		
PHIL 115	Logic and Critical Thinking	3
CSIS 105	Computer Concepts/Microcomputer	3
TOTAL UNITS		**22 - 23**

COURSE OFFERINGS

ECON 100 Basic Economics (3)
3 hours lecture
Note: *Not intended for programs which require Principles of Economics - ECON 101 and/or 102*
Transfer acceptability: *CSU; UC – no credit if taken after ECON 101 or 102*
A study of the American economic system as it affects the decision-making of the individual as income earner, taxpayer, and voter. Emphasis is on application of the analyses of supply and demand, productivity, wages and the labor force, the money and banking system, the role of government, and domestic and international economic issues.

ECON 101 Principles of Economics (Macro) (3)
3 hours lecture
Transfer acceptability: *CSU; UC*; *CAN ECON 2*
Descriptive analysis of the structure and functioning of the economy of the United States. Emphasizes national income, problems of inflation and unemployment, the role of government, money supply, and economic growth.

ECON 102 Principles of Economics (Micro) (3)
3 hours lecture
Transfer acceptability: *CSU; UC*; *CAN ECON 4*
Descriptive analysis of behavior of specific units and individuals. Examines market structures and resource markets under varying degrees of competition. Includes international trade and finance.

ECON 110 Comparative Economic Systems (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
A study of various types of economic institutions and decision-making systems. Emphasis is given to the theories of capitalism, Marxian economics, and the various types of socialism. The theories will be applied to the study of several countries, including the Soviet Union, Japan, China, Mexico, and a Western European country, as they compare to the United States.

ECON 115 Economic History of the United States (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
Development of the United States economy from the colonial period to the present. Emphasis will be on the evolution of such institutions as labor unions, business, banking, and government. Economic theory will be used to analyze historical problems.

ECON 197 Economics Topics (.5-4)
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*; *UC – Credit determined by UC upon review of course syllabus.*
Topics in Economics. See Class Schedule for specific topic offered. Course title will designate subject covered.

ECON 295 Directed Study in Economics (1,2,3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: *May be taken 4 times*
Transfer acceptability: *CSU; UC* – Credit determined by UC upon review of course syllabus.
Independent study for students who have demonstrated a proficiency in economics subjects and have the initiative to work independently on projects or research that does not fit into the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Education (ED)

Contact Reading Services for further information, (760) 744-1150, ext. 2568

COURSE OFFERINGS

ED 200 Careers in Teaching (3)
3 hours lecture
Transfer acceptability: *CSU; UC*
An overview of the teaching profession for those students contemplating a career in education. Foundations of education, critical issues in the classroom, and the history and philosophy of education are addressed. Effective and active learning, diversity in the classroom and teaching profession standards are discussed. Guided classroom observations (45 hours) of a K-12 classroom in a variety of subject areas are a requirement for this course.

ED 201 Literacy Instruction (3)
3 hours lecture
Transfer acceptability: *CSU*
This course is designed for both the student who is considering a 0career in teaching as well as the prospective literacy tutor. The basic process of literacy acquisition is presented as well as literacy strategies for the emerging and developing reader. The literacy dynamics of a multicultural learning environment will also be presented. 20 hours of literacy training required.

Electro-Mechanical Equipment Technician (EMET)

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

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

Electro-Mechanical Equipment Technician

Specifically for individuals 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 Achievement

Program Requirements		Units
CI 105	Electrical Codes I	3
CI 106	Electrical Codes II	3
DT 140	Electrical Drafting and Design	3
CSIS 105	Computer Concepts/Microcomputer	3
ECHT 100	Electronic Components and Circuits	4.5
EMET 50	Servicing Electro-Mechanical Equipment	3
EMET 51	Mail Equipment Mechanic Exam Prep	3
Electives (Select 6 units)		
IT 100	Technical Mathematics	3
WELD 100	Welding I	3
ECHT 203	Digital/Computer Electronics	4.5
CE 100*	Cooperative Education	1-4
TOTAL UNITS		**28.5**

* Cooperative Education must be related to this major.

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

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAMS OF STUDY

Electronics Assembler

This certificate is intended to prepare students for immediate employment in the electronics assembly industry as an electronics assembler.

Certificate of Proficiency

Required Courses		Units
ECHT 100	Electronic Components and Circuits	4.5
ECHT 162	Printed Circuit Board Assembly	3
TOTAL UNITS		**7.5**

Recommended electives: ECHT 20; 160; MATH 15; READ 30, 47, 50; ESL 98.1

Advanced Electronic Technician

A.A. Degree Major or Certificate of Achievement

Program Requirements (Select one option)		Units
Option One		
ECHT 100	Electronic Components and Circuits	4.5
ECHT 101	Discrete Electronic Circuits	4.5
ECHT 102	Integrated Electronic Circuits	4.5
ECHT 203	Digital/Computer Electronics	4.5
ECHT 204	Microcomputer Architecture	4.5
ECHT 205	Telecommunication Systems	4.5
Option Two		
ECHT 130	Electronic Principles, Components, Circuits	13.5
ECHT 220	Elect Digital Computers,/Telecommunication Sys	13.5
Electives (Select a minimum of 12 units). It is recommended that students include one math course and one English or speech course.		
DT/RDT 125	AutoCAD Introduction to Computer Aided Drafting	3
DT 110	Technical Drafting I with AutoCAD	4
DT 140	Electronic Drafting and Design	3
DT 210	Printed Circuit Board Design	3
MATH 60 or	Intermediate Algebra	
MATH 110 or	College Algebra	
MATH 115	Trigonometry	3,4

PHYS 120	General Physics	4
ENG 50 or	Introductory Composition	
ENG 100	English Composition	4
SPCH 100	Oral Communication	3
ENGR 210	Electrical Network Analysis	3
ECHT 126	Introduction to Electrical/Computer Engineering	4
ECHT 160	Electronics for Everyone	3
ECHT 162	Electronic Printed Circuit Board Assembly	3
R CSIS 140	Command Line Operations	3
R CSIS 155	Computer Technology Hardware	3
R CSIS 156	Computer Technology Software	3
R CSIS 160	Introduction to Local Area Networking	3
RCSIS/CSIS 170	Windows	1
RCSIS/CSIS 120	Microcomputer Applications	3
TOTAL UNITS		**39**

Full-time day students are recommended to take the required ECHT courses in the following sequence:

First semester	Second semester
ECHT 130	ECHT 220

Evening students are recommended to take the required ECHT courses in the following sequence: ECHT 100, ECHT 101, ECHT 102, ECHT 203, ECHT 204, ECHT 205.

ECHT 130 is equivalent to ECHT 100, 101, and 102
ECHT 220 is equivalent to ECHT 203, 204, and 205

Computer Hardware/Telecommunication Technician

A.A. Degree Major or Certificate of Achievement

Program Requirements (Select one option)		**Units**
Option One		
ECHT 100	Electronic Components and Circuits	4.5
ECHT 101	Discrete Electronic Circuits	4.5
ECHT 102	Integrated Electronic Circuits	4.5
ECHT 203	Digital/Computer Electronics	4.5
ECHT 204	Microcomputer Architecture	4.5
ECHT 205	Telecommunication Systems	4.5
Option Two		
ECHT 130	Electronic Principles, Components, and Circuits	13.5
ECHT 220	Electr Digital Computers/Telecommunication Sys	13.5
TOTAL UNITS		**27**

Full-time day students may earn a certificate in two semesters by completing the required ECHT courses in the following sequence:

First semester	Second semester
ECHT 130	ECHT 220

Evening students are recommended to take the required ECHT courses in the following sequence: ECHT 100, ECHT 101, ECHT 102, ECHT 203, ECHT 204, ECHT 205.

ECHT 130 is equivalent to ECHT 100, 101, and 102
ECHT 220 is equivalent to ECHT 203, 204, and 205

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 (1.5)
3 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 130 Electronic Principles, Components, and Circuits (13.5)
9 hours lecture-9 hours lecture/laboratory
Transfer acceptability: *CSU*
Fundamentals of DC and AC: Ohm's Law, Kirchoff's Laws, Thevenin's Theorem, magnetism, transformers, capacitance, inductance, tuned circuits, linear and non-linear, analog, discrete semiconductors; diodes, power supplies, transistors, amplifiers, and 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 carried through traditional workstation procedures and by the computer simulation program.

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.

ECHT 220 Electronic Digital Computers and Telecommunication Systems (13.5)
9 hours lecture-9 hours lecture/laboratory
Prerequisite: *ECHT 130*
Transfer acceptability: *CSU*
Fundamental logic functions will be studied in various combinational and sequential logic circuits. The architecture and programming of the digital microprocessor will be emphasized. 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. Communication of information using analog/digital electronic circuits and systems. AM, FM, PM modulation techniques, 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

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

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-1 training, which is equal to the number of units given at Palomar College for the EMT-1 courses.
3. The student may not receive duplicate credit for any other EMT-1 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, extension 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/ PE104	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 six months 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 and the EME 175 & EME 175L with a grade of "C" 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 215	Field Internship	9
TOTAL UNITS		**37.5**

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*
Basic cardio-pulmonary resuscitation (CPR) course for one person CPR, two person CPR, child CPR, infant CPR, obstructed airway and mouth-to-mask ventilation based on American Heart Association standards.

EME 100 Advanced First Aid (3)
3 hours lecture
Note: *Cross listed as PE 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, for CPR certification from the American Heart Association and/or the American Red Cross.

EME 106 Emergency Medical Technician Basic (Lecture) (6)
6 hours lecture
Prerequisite: *Current BLS course CPR card and Emergency Response card, or EME 100. Proof of meeting the prerequisite will be required at the first class meeting*
Corequisite: *EME 106L*
Note: *May 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-Basic certification.

EME 106L Emergency Medical Technician Basic Skills (Laboratory) (1)
3 hours laboratory
Prerequisite: *Current CPR for Health Care Providers CPR and Emergency Response card or EME 100*
Corequisite: *EME 106*
Note: *Credit/No Credit 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-Basic certification. Student is required to complete 16 hours supervised ambulance and emergency department observation.

EME 116 Emergency Medical Technician Refresher Course (1.5)
1 ½ 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: *Credit/No Credit 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 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: *Credit/No Credit 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 (3-5)
9 to 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, laboratory, or lecture/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, laboratory, or lecture/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, laboratory, or lecture/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. Topics relative to the fields.

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: *Credit/No Credit 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: *Credit/No Credit 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: *Credit/No Credit 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 ½ hours laboratory
Prerequisite: *RN, MD, PA or former Paramedic who meets State of California challenge requirements*
Corequisite: *EME 203*
Note: *Credit/No Credit 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) (4)
4 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 Standard Curriculum for Paramedic Training.

EME 206L Introduction to Paramedic Training (Laboratory) (1)
3 hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 206*
Note: *Credit/No Credit grading only; may be taken 2 times*
Application of skills used in the Introduction to Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training.

EME 207 Paramedic Medical Training (Lecture) (10)
10 hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 207L*
Note: *May be taken 2 times*
The study of medical diseases for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes ACLS training and certification.

EME 207L Paramedic Medical Skills (Laboratory) (1.5)
4 ½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 207*
Note: *Credit/No Credit 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 Standard Curriculum for Paramedic Training.

EME 208 Paramedic Trauma Training (Lecture) (4.5)
4 ½ hours lecture
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 208L*
Note: *May be taken 2 times*
The study of traumatic emergencies for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 208L Trauma Skills (Laboratory) (.5)
1 ½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 208*
Note: *Credit/No Credit grading only; may be taken 2 times*
Application of skills necessary for trauma class of Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pre-hospital Trauma Life Support training and certification.

EME 209 Paramedic Obstetrical and Pediatric Training (Lecture) (2.5)
2 ½ hours lecture
Prerequisite: Admission into Paramedic program
Corequisite: *EME 209L*
Note: *May be taken 2 times*
The study of Obstetrical and Pediatric emergencies for Paramedic training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals.

EME 209L Paramedic Obstetrical and Pediatric Skills (Laboratory) (.5)
1 ½ hours laboratory
Prerequisite: *Admission into Paramedic program*
Corequisite: *EME 209*
Note: *Credit/No Credit grading only,; may be taken 2 times*
Application of skills necessary for the Obstetrical and Pediatric class for Paramedic Training which meets the requirements of the National Standard Curriculum for Paramedic Training. Includes Pediatric Education for Pre-hospital Professionals.

EME 210 Hospital Clinical Experience (4)
12 hours laboratory
Prerequisite: *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 215 Field Internship (9)
28 hours laboratory
Prerequisite: *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 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

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM 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		**Units**
(Select a minimum of 11 units)		
ENGR 125	Engineering Graphics	3
ENGR/ ECHT 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	3
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 often perceived as a dry and dull profession. Academic success strategies will be explained and practiced; ethical concepts will be examined through case histories and practical applications.

ENGR 125 Engineering Graphics (3)
2 hours lecture-3 hours laboratory
Transfer acceptability: *CSU; UC*
Fundamental principles of orthogonal projection and their application to the solution of three-dimensional problems arising in the various branches of engineering, free-hand and instrumental working drawings, and graphic computations.

ENGR 126 Introduction to Electrical and Computer Engineering (4)
3 hours lecture-3 hours laboratory
Prerequisite: *Math 140*
Note: *Cross listed as ECHT 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.

ENGR 197 Engineering Topics (.5-5)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of, 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 Engineering. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENGR 210 Electrical Network Analysis (3)
3 hours lecture
Prerequisite: *Completion of, or concurrent enrollment in, both ENGR 210L and PHYS 231*
Transfer acceptability: *CSU; UC*; *CAN ENGR 12*
Circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 210L Electrical Network Analysis Laboratory (1)
3 hours laboratory
Prerequisite: *Completion of, or concurrent enrollment in, ENGR 210*
Transfer acceptability: *CSU; UC*
Laboratory exercises of circuit analysis by reduction methods, source transformations, loop and nodal analysis, OPAMP model for networks, transient analysis, alternating current circuits, impedance, power and phasor diagrams.

ENGR 231 Engineering Measurement Analysis (3)
2 hours lecture-3 hours laboratory
Prerequisite: *MATH 140*
Transfer acceptability: *CSU; UC*
Analysis and treatment of engineering data. Probability, statistics, error theory, correlation and regression analysis, dimensional analysis, data processing, and preparation of technical reports. Laboratory experiments in hydraulic flow, surveying, heat transfer, and static and dynamic test systems.

ENGR 235 Engineering Mechanics – Statics (3)
3 hours lecture
Prerequisite: *PHYS 230 and MATH 140*
Transfer acceptability: *CSU; UC*; *CAN ENGR 8*
Force systems and equilibrium conditions. Engineering problems covering structures, machines, distributed forces, and friction. Graphical and algebraic solutions, and vectorial analysis.

ENGR 236 Engineering Mechanics – Dynamics (3)
3 hours lecture
Prerequisite: *ENGR 235*
Transfer acceptability: *CSU; UC*
Fundamental principles of bodies in motion; kinetics and kinematics of particles; system of particles; central force; work and energy; linear and angular momentum; moments and products of inertia; vibrations and time response; engineering applications.

ENGR 245 Properties of Materials (3)
2 hours lecture-3 hours laboratory
Prerequisite: *CHEM 110 and 110L*
Transfer acceptability: *CSU; CAN ENGR 4*
Physical properties of engineering materials. Atomic, molecular, and crystal-lattice characteristics. Relations between these and mechanical, thermal, electrical, corrosion, and radiation properties. Metallic, ceramic, polymer, and agglomerate materials. Selection, treatment, and use of materials.

ENGR 295 Directed Study in Engineering (1,2,3)
3, 6, or 9 hours laboratory
Prerequisite: *Approval of project or research by department chairperson*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Designed for the student who has demonstrated a proficiency in engineering subjects and the initiative to work independently on a particular sustained project which does not fit into the context of regularly scheduled classes.

English (ENG)

Contact the English Department for further information, (760) 744-1150, ext. 2392

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

English

Focuses on the English language and literatures in English. Provides the background for students to succeed in diverse fields, such as advertising and marketing, teaching, journalism and telecommunications, law, technical writing, and business administration. Prepares students for upper division course work in English. For specific transfer requirements, the student should consult an academic counselor or the catalog for the school to which he or she wishes to transfer.

AA Degree Major*

Program Requirements		Units
ENG 205	Introduction to Literature	3
Elective Courses (Select 9 units)		
ENG 135	Introduction to Creative Writing	4
ENG 136	Intermediate Creative Writing	4
ENG 210	Survey of British Literature I	3
ENG 211	Survey of British Literature II	3
ENG 220	Survey of World Literature I	3
ENG 221	Survey of World Literature II	3
ENG 225	Literature of the United States I	3
ENG 226	Literature of the United States II	3
Elective Courses (Select 6 units) Any of the above courses not previously taken or pick from the following courses:		
ENG 110	The Study of English Grammar	3
ENG 137	The Literary Magazine: History/Production	4
ENG 215	Introduction to the English Novel	3
ENG 230	Introduction to the American Novel	3
ENG 240	Introduction to Classical Mythology	3
ENG 245	Survey of Biblical Literature	3
ENG 250	Introduction to Shakespeare	3
ENG 260	Literature Through Film	3
ENG 265	Science Fiction	3
ENG 270	Popular Literature	3
ENG 280	Women and Literature	3
TOTAL UNITS		**18**

*** Pending Chancellor's Office approval at time of catalog publication.**

COURSE OFFERINGS

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

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of "C" or better. The student must participate in the English placement process before enrolling in any English or English as a Second Language composition class except ENG 10, 110 and 150. The eligibility will indicate whether the student may enroll in ENG 50 or ENG 100. Students whose first language is not English may find, however, that ESL instruction meets their needs better than immediate enrollment in ENG 10 or 50. Such students may take one or more ESL classes (ESL 101, 102, 103) instead; then by again participating in the English placement process, they may qualify for ENG 50 or ENG 100. Non-resident international students may be required to take one or more classes of English as a Second Language.

Students should sign up for English assessment as soon as possible because some students may take three or more semesters to finish the competence in English. Please contact the Counseling Department for the English assessment schedule.

ENG 10 English Essentials (4)
4 hours lecture
Note: *A grade of "C" or better is required for eligibility for ENG 50*
Offers basic instruction in grammar, usage, mechanics, sentence structure, and paragraph and essay development.

ENG 50 Introductory Composition (4)
4 hours lecture
Prerequisite: *A minimum grade of "C" in ENG 10 or eligibility determined through the English placement process*
Note: *A grade of "C" or better is required for eligibility for ENG 100*
A writing course for the student who wants to develop fundamental essay writing skills, acquire an A.A. degree, or enter a transfer program, but who needs further preparation in composition skills.

ENG 97 English Topics (.5-4)
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*
Topics in English. See class schedule for specific topic covered. Course title will designate subject covered.

ENG 100 English Composition (4)
4 hours lecture
Prerequisite: *A minimum grade of "C" in ENG 50 or eligibility determined through the English placement process*
Note: *May not be taken for Credit/No Credit grading*
Transfer acceptability: *CSU; UC; CAN ENGL 2*
Practice in expository and argumentative writing based on analytical reading and critical thinking. Topics include methods of invention, organization and development, principles of basic research, and the elements of style.

ENG 110 The Study of English Grammar (3)
3 hours lecture
Transfer acceptability: *CSU*
An intensive study of both traditional and modern approaches to English syntax that provides insights into how English works as well as a review of the major concerns of prescriptivism.

ENG 135 Introduction to Creative Writing (4)
4 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 136 Intermediate Creative Writing (4)
4 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Provides practice, instruction, and analytical research in writing fiction and poetry. Students submit both creative and analytical writing which will be presented for workshop discussion and critique. Lectures present a variety of prose and verse forms.

ENG 137 The Literary Magazine: History and Production (4)
8 hours lecture/laboratory
Recommended preparation: *Eligibility for ENG 100*
Note: *May be taken 4 times*
Transfer acceptability: *CSU*
Historical examination of the genre of the literary magazine from the 18th century to the present, with an emphasis on the late 20th century. Also, after selecting and editing material for Palomar

College's literary journal, Bravura, students will structure, format, produce, and distribute the magazine.

ENG 150 Introduction to Linguistics (3)
3 hours lecture
Note: *Cross listed as ANTH 150*
Transfer acceptability: *CSU; UC*
An introduction to the principles and practices of modern language study. Examines the origins and development of language, its social uses and implications, and its structure.

ENG 197 English Topics (.5-4)
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; UC – Credit determined by UC upon review of course syllabus.*
Topics in English. See Class Schedule for specific topic offered. Course title will designate subject covered.

ENG 202 Critical Thinking and Composition (4)
4 hours lecture
Prerequisite: *A minimum grade of "C" in ENG 100*
Note: *May not be taken for Credit/No Credit grading*
Transfer acceptability: *CSU; UC*
Provides instruction and practice in methods of critical thinking and formal composition, emphasizing the following: awareness of language and its implications through rhetorical and semiotic analysis based on systematic consideration of language in context; awareness of principles of classical argument in light of the traditions of rational thought. Students will be required to engage in both traditional and current methods of research through the use of information technology.

ENG 203 Critical Thinking and Composition Through Literature (4)
4 hours lecture
Prerequisite: *A minimum grade of "C" in ENG 100*
Note: *May not be taken for Credit/No Credit grading*
Transfer acceptability: *CSU; UC*
Practice in writing essays about literature with emphasis on critical thinking, reading, and writing skills; principles of inductive and deductive reasoning; the relationship of language to logic; analysis, criticism, and advocation of ideas; methods of research; advanced elements of style and organization.

ENG 205 Introduction to Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC; CAN ENGL 4*
An introduction to fiction, poetry, drama, and other genres in literary form. Students will read and discuss assigned selections from various literary genres and examine themes, language, forms, techniques, and other strategies that influence the production and reception of literature.

ENG 210 Survey of British Literature I (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC; CAN ENGL 8; ENG 210+211=CAN ENGL SEQ B*
A study of the significant texts in British literature from the Middle Ages to the Eighteenth Century; considers a variety of authors, literary genres and trends, as well the historical and cultural contexts of the literary texts.

ENG 211 Survey of British Literature II (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC; CAN ENGL 10, ENG 210+211= CAN ENGL SEQ B*
A study of significant texts in British literature from the Romantic period to the present. Considers a variety of authors, literary genres and trends, as well as the historical and cultural contexts of the literary texts.

ENG 215 Introduction to the British Novel (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the British novel through reading such writers as Aphra Behn, Daniel Defoe, Laurence Sterne, Samuel Richardson, Fanny Burney, Jane Austen, Mary Shelley, Charlotte Bronte, Emily Bronte, Wilkie Collins, Charles Dickens, George Eliot, Thomas Hardy, Joseph Conrad, Virginia Woolf, James Joyce, Jean Rhys, Chinua Achebe, Salman Rushdie.

ENG 220 Survey of World Literature I (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A survey of the major literature of Africa, the Americas, Asia and Europe from ancient times to about 1600. A comparative study of literary themes and expression will be pursued.

ENG 221 Survey of World Literature II (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A survey of the major literatures of Europe, Asia, the Americas, Africa, and Australia from about 1600 to the present. A comparative study of literary themes and influences will be pursued.

ENG 225 Literature of the United States I (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC; CAN ENGL 14*
Significant texts written in the territories that would become the United States, from the pre-colonial period to the Civil War; considers a variety of literary genres and trends, with a focus on such issues as the interaction of texts and history, the expansion and politics of the literary canon, and the influence of the cultural contexts in which the literature of the United States is written and interpreted.

ENG 226 Literature of the United States II (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Significant texts written in the United States from the Civil War to the present; considers a variety of literary genres and trends, with a focus on such issues as the interaction of texts and history, the expansion and politics of the literary canon, and the influence of the cultural contexts in which the literature of the United States is written and interpreted.

ENG 230 Introduction to the American Novel (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the development of the American novel through reading such writers as Nathaniel Hawthorne, Louisa May Alcott, Herman Melville, Mark Twain, Henry James, Elizabeth Stewart Phelps, Kate Chopin, William Faulkner, Ernest Hemingway, Nella Larsen, Bernard Malamud, Zora Neale Hurston, Willa Cather, Ralph Ellison, Thomas Pynchon, Toni Morrison, Maxine Hong Kingston, Louise Erdrich, and James Baldwin.

ENG 240 Introduction to Classical Mythology (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
A study of the meaning and function of myth in the classical literature of Ancient Greece and Rome. Read translations of representative epic, poetic, and dramatic literature of Hesiod, Homer, Aeschylus, Sophocles, Euripides, Aristophanes, Vergil, and Ovid. An examination of the cultures which helped shape the literature and values with us today.

ENG 245 Survey of Biblical Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
An introduction to the study of the Bible in English as an anthology of literary types and genres: stories, poetry, proverbs, gospels, parables, epistles, satire, and visionary literature.

ENG 250 Introduction to Shakespeare (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*

Introduction to the life, times, background, poems, and plays of William Shakespeare.

ENG 255 Literature and Ideas (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Note: *Cross listed as PHIL 255; may be taken 2 times*
Transfer acceptability: *CSU; UC*
An introduction to selected major philosophical ideas, questions, and attitudes in significant literature of the world, from the ancient world to the present. The course will trace treatment of a thematic idea through literature of particular times and cultures. Recommended for English and Philosophy majors, and for those interested in broadening their background in the humanities.

ENG 260 Literature Through Film (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – max credit, one course*
Analysis of the expectations and conventions used in literature -- novels, short stories, dramas -- and how those expectations and conventions are affected when they are translated into film. Critical analysis of the various works and comparison/contrast of the different interpretations of these ideas will be stressed.

ENG 265 Science Fiction (3)
3 hour lecture
Prerequisite: *Eligibility for ENG 100*
Note: *Graded only*
Transfer acceptability: *CSU; UC*
An introduction to science fiction - its major authors and stories, themes, trends, and cultural impact.

ENG 270 Popular Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Note: *Graded only. May be taken 2 times*
Transfer acceptability: *CSU; UC – max credit, one course*
An introduction to one genre of popular literature such as science fiction, fantasy, detective fiction, war fiction, humor, or western literature using short stories and novels, and how these works are affected by the expectations, and conventions of the genre in which the author is writing.

ENG 280 Women and Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
Examines from a multicultural perspective women's relationship to literature. Examines what it means to be a "woman" writer, exploring historical and cultural conditions that have shaped women's relationship to literature. Explores gender stereotypes in literature by and about women and analyzes the ways in which women writers engage with, resist, and/or subvert dominant ideas about gender in literature.

ENG 290 Comic Books as Literature (3)
3 hours lecture
Prerequisite: *Eligibility for ENG 100*
Transfer acceptability: *CSU; UC*
An analysis of the comic book in terms of its unique poetics (the complicated interplay of word and image); the themes that are suggested in various works; the history and development of the form and its subgenres; and the expectations of comic book readers. Examines the influence of history, culture, and economics on comic book artists and writers. Explores definitions of "literature," how these definitions apply to comic books, and the tensions that arise from such applications.

ENG 295 Directed Study in Literature (1,2,3)
3, 6, or 9 hours laboratory
Prerequisite: *Eligibility for ENG 100*
Note: *May be taken 2 times*
Transfer acceptability: *CSU; UC – Credit determined by UC upon review of course syllabus.*
Independent study for students who have demonstrated skills and/or proficiencies in English 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.

English as a Second Language (ESL)

Contact the English as a Second Language Department for further information, (760) 744-1150, ext. 2272

Any student wishing to earn an A.A. degree must complete ENG 100 with a grade of "C" or better.

Students whose first language is not English are advised to participate in an English placement process given by the English as a Second Language Department before enrolling in any English or English as a Second Language class.

The assessment process will determine which level is appropriate for the student.

COURSE OFFERINGS

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

The following courses are for students whose first language is not English.

ESL 1 Beginning ESL I (1-4)
3 to 12 hours lecture/laboratory
Prerequisite: *Eligibility established through the English as a Second Language placement process.*
Listening, speaking, reading, and writing skills for non-native speakers of English at the low-beginning level.

ESL 2 Beginning ESL II (1-4)
3 to 12 hours lecture/laboratory
Prerequisite: *A minimum grade of "C" in ESL 1 or eligibility determined through the English as a Second Language placement process.*
Listening, speaking, reading, and writing skills for non-native speakers of English at the mid-beginning level.

ESL 3 Beginning ESL III (1-4)
3 to 12 hours lecture/laboratory
Prerequisite: *A minimum grade of "C" in ESL 2 or eligibility determined through the English as a Second Language placement process.*
Listening, speaking, reading, and writing skills for non-native speakers of English at the high-beginning level.

ESL 9 English Pronunciation I (3)
3 hours lecture
Development of students' ability to identify and replicate English intonation, stress patterns, and certain common word combinations as they are pronounced in informal speech.

ESL 10 English Pronunciation II (3)
3 hours lecture
Identifies standard spoken American English intonation, stress and rhythm sounds. Provides practice to retrain the speech organs to produce those sounds. Emphasis on self-correction of speech problems.

ESL 15 Grammar Skills for ESL Writers (3.0)
3 hours lecture
Instruction in editing of written material by applying conventions of standard written English.

ESL 30 Computer Literacy for ESL Students (2)
4 hours lecture/laboratory
Development of reading and writing skills through computers, focusing on vocabulary specific to using computers. Includes basic word processing, spreadsheet, database and graphic commands and procedures needed to complete reading and writing assignments and other projects.

ESL 34 Intermediate ESL I (1-4)
3 to 12 hours lecture/laboratory
Prerequisite: *A minimum grade of "C" in ESL 3 or eligibility determined through the English as a Second Language placement process.*
Listening, speaking, reading, and writing skills for non-native speakers of English at the low-intermediate level.

ESL 35 Intermediate ESL II (1-4)
3 to 12 hours lecture/laboratory
Prerequisite: *A minimum grade of "C" in ESL 34 or eligibility determined through the English as a Second Language placement process.*
Listening, speaking, reading, and writing skills for non-native speakers of English at the mid-intermediate level.

ESL 36 Intermediate ESL III (1-4)
3 to 12 hours lecture/laboratory
Prerequisite: *A minimum grade of "C" in ESL 35 or eligibility determined through the English as a Second Language placement process.*
Listening, speaking, reading, and writing skills for non-native speakers of English at the high-intermediate level.

ESL 40 Introduction to Academic Reading and Writing (2)
2 hours lecture
A multilevel reading and writing course designed to help students improve their reading and writing skills. This course will provide a review of grammar, paragraph organization and development, and the conventions of academic writing. It will also address reading strategies such as using textual clues to aid comprehension, finding a balance between speed and accuracy, and vocabulary building. *Offered in the summer session only.*

ESL 97 English as a Second Language Topics (.5-5)
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*
Topics in English as a Second Language. See Class Schedule for specific topic covered. Course title will designate subject covered.

ESL 98.1 Vocational ESL I (1-4)
3 to 12 hours laboratory
Beginning level English as a Second Language instruction in preparation for a vocational program. Self-paced modules provide an introduction to complementary language and academic skills necessary to succeed in a vocational program. Includes reading, writing, speaking, listening, and basic computer literacy skills.

ESL 98.2 Vocational ESL II (1-4)
3 to 12 hours laboratory
Prerequisite: *ESL 98.1*
Intermediate English as a Second Language instruction in preparation for a vocational program. Continued self-paced intermediate instruction in complementary language and academic skills necessary to succeed in a vocational program. Includes reading, writing, speaking, listening, and intermediate computer literacy skills.

ESL 98.3 Vocational ESL III (1-4)
3 to 12 hours laboratory
Prerequisite: *ESL 98.2*
Advanced English as a Second Language instruction in preparation for a vocational program. Provides advanced complementary instruction in language and academic skills necessary to succeed in a vocational program through self-paced modules. Includes reading, writing, speaking, listening, and advanced computer literacy skills. For students who are completing their Vocational ESL program of studies.

ESL 101 Written Communication I (5)
5 hours lecture
Prerequisite: *Eligibility determined through the English as a Second Language placement process*
Transfer acceptability: *CSU*
A review of word-level and sentence-level grammar, paragraph organization, paragraph development, development of the five-paragraph essay and appropriate vocabulary for academic writing. Emphasizes writing as a process; develops analytical skills and critical thinking.

ESL 102 Written Communication II (5)
5 hours lecture
Prerequisite: *A minimum grade of "C" in ESL 101 or eligibility determined through the English as a Second Language placement process*
Transfer acceptability: *CSU; UC – ESL 102 and 103 combined: maximum credit, 8 units*
A review of sentence-level grammar, paragraph organization, development of the five-paragraph essay, and appropriate vocabulary for academic writing. Introduces writing as a response to published materials which cultivate the affective and intellectual abilities of the students. Emphasizes writing as a process; develops analytical skills and critical thinking.

ESL 103 Written Communication III (5)
5 hours lecture
Prerequisite: *A minimum grade of "C" in ESL 102 or eligibility determined through the English as a Second Language placement process.*
Transfer acceptability: *CSU; UC – ESL 102 and 103 combined: maximum credit, 8 units*
Expansion of the basic five-paragraph essay through the development of detailed, specific, and appropriate support. Further develops the students' abilities to read, analyze, interpret, and respond both objectively and subjectively to published materials that are linguistically, conceptually, and culturally challenging. Emphasizes writing as a process.

ESL 130 Academic Reading for ESL I (3)
3 hours lecture
Transfer acceptability: *CSU*
An introduction to reading skills necessary for understanding academic writing. Emphasis is on vocabulary development, analysis of complex grammatical constructions at the sentence level to improve comprehension, paraphrasing, and summary-writing. Additional focus is on the improvement of reading speed.

ESL 131 Academic Reading for ESL II (3)
3 hours lecture
Transfer acceptability: *CSU*
Reading skills for understanding the complex nature of the language and concepts presented in college textbooks. Emphasis is on the organization of textbook writing, the signals which help the student to analyze and comprehend each part of a chapter, and the patterns of writing which students must recognize such as cause and effect, comparison and contrast, exemplification and process which are most common in college textbook material.

Entertainment Technology (ENTT)

Contact the Performing Arts Department for further information, (760) 744-1150, ext. 2316

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

Entertainment Technology

Certificate of Proficiency

An overview of the live entertainment technology industry, including: working methods, processes, equipment and facilities for theatre, opera, dance, television, cinema, concert productions, theme parks, themed-retail, cruise ship venues, and corporate special events.

Program Requirements			Units
ENTT/TA 105		Introduction to Technical Theatre	3
ENTT/TA 107		Special Effects of Light and Sound	3
ENTT/TA 108		Stagecraft/Scene Design	3
ENTT/RTV 120		Basic Television Production	3
ENTT/RTV 130		Radio Production	3
ENTT/ RTV 294B	or	Television Internships/Production	
TA 197D		Stage Crew Workshop	1
TOTAL UNITS			16

ENTT 105 Introduction to Technical Theatre (2.5)
5 hours lecture/laboratory
Note: *Cross listed as TA 105*
Transfer acceptability: *CSU; UC*
A general survey of technical theatre including stagecraft, lighting, sound design, costuming, make-up, production organization, business management, and promotion. Course will include practical skills in all areas.

ENTT 107 Special Effects of Light and Sound (3)
2 hours lecture-4 hours laboratory
Note: *Cross listed as TA 107*
Prerequisite: *ENTT 105 /TA 105*
Transfer acceptability: *CSU; UC*
Techniques, theories, and procedures necessary to develop sound, music, and lighting effects integrated into film, television, and theatre production. Practical experience in college productions.

ENTT 108 Stagecraft/Scene Design (3)
2 hours lecture-4 hours laboratory
Note: *Cross listed as TA 108*
Prerequisite: *ENTT 105/TA 105*
Transfer acceptability: *CSU; UC*
Technical practices and organization of production for theatre, film, and television. Practice in drafting, designing, and construction of scenery for college productions.

ENTT 120 Basic Television Production (3)
6 hours lecture/laboratory
Note: *Cross listed as RTV 120*
Transfer acceptability: *CSU*
The terminology, practices, and aesthetic considerations of visual and sound productions. Principles of producing, staging, shot composition, directing, blocking, graphics, studio techniques, and lighting, for television.

ENTT130 Radio Production (3)
6 hours lecture/laboratory
Note: *Cross listed as RTV 130*
Transfer acceptability: *CSU*
Techniques and theories of audio production in the preparation of radio programs. Use of audio mixing and recording equipment, editing and dubbing, microphone techniques and program construction. Several programs produced by the student will be broadcast on radio station KKSM.

ENTT 294BTelevision Internships/Production (1,2,3)
3, 6 , or 9 hours laboratory
Note: *Cross listed as RTV 294B; May be taken 4 times*
Transfer acceptability: *CSU*
Work on advanced television production including individual research, work on college-produced programs, or internships at local broadcast stations, cable companies, and other communications facilities.

Family and Consumer Sciences (FCS)

Contact the Design and Consumer Education Department for further information, (760) 744-1150, ext. 2349. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAM OF STUDY

Family and Consumer Sciences - General

For students desiring to improve their skills as home managers or to enter careers in social services or related fields requiring knowledge of family management skills.

Students should be aware that not all Family and Consumer Sciences, Fashion, and Interior Design courses are offered every semester. See Class Schedule or Department Chairperson for additional information.

A.A. Degree Major or Certificate of Achievement

Program Requirements			Units
FCS	101	Human Systems Management	3
FCS	105	Family Dynamics	3
FCS/HE	165	Fundamentals of Nutrition	3
FCS	136	Personal Finance	3
FASH	110	Textiles	3
FASH	135	Basic Sewing Construction	3
ID	100	Interior Design	3
CHDV	100 or	Child Development	
PSYC	110	Developmental Psychology – Child Through Adult	3
TOTAL UNITS			**24**

Recommended Electives: It is recommended that candidates for the certificate and transfer students take one or more of the following courses: FCS 197, 295; FASH 100, 105, 136; ID 105, 115; ART 120; CHEM 100; CHDV 145; CE 100; PSYC 100; SOC 100; SPCH 100

Students planning to transfer to San Diego State University should seek counseling from the director of the Family and Consumer Sciences program.

COURSE OFFERINGS

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

FCS 20 Residential Services Specialist I (3)
3 hours lecture
Prepares students for working in or operating their own residential care home for the developmentally disabled. When taken along with FCS 21, fulfills the requirements for the Residential Services Specialist Certificate which is required of home care operators by the State Department of Developmental Services.

FCS 21 Residential Services Specialist II (3)
3 hours lecture
Prepares students for working in or operating their own residential care home for the developmentally disabled. When taken along with FCS 20, fulfills the requirements for the Residential Services Specialist Certificate which is required of care home operators by the State Department of Developmental Services.

FCS 101 Human Systems Management (3)
3 hours lecture
Transfer acceptability: *CSU*
Principles of managing human systems through the techniques of goal setting, decision-making, communication, and time and energy structuring. Emphasizes problem solving skills transferable to management of education, residence, or work environments. CSU

FCS 105 Family Dynamics (3)
3 hours lecture
Transfer acceptability: *CSU*
Explores the elements which lead to successful adjustment in family living. Dynamics of love, communication, and sexuality are examined as part of the developmental process of family life.

FCS 110 Microbiology and Foods (3)
2 hours lecture - 2 hours lecture/laboratory
Note: *Cross listed as MICR 110*
Introduction to the principles of microbiology with an emphasis on

foodborne pathogens. Students will explore biological factors and controls relating to reproduction of microorganisms and the effects on public health. This course does not meet microbiology requirement for pre-health students.

FCS 136 Personal Finance (3)
3 hours lecture
Note: *Cross listed as BUS 136*
Transfer acceptability: *CSU*
A study of the effective management of personal and family resources. Budgeting, buying of goods and services, banking, credit, taxation, investing, insurance, home ownership, estate planning, and consumer protection.

FCS 150 Cultural Nutrition (3)
3 hours lecture
Transfer acceptability: *CSU*
Regional, ethnic, cultural, religious, historical, and social influences on food patterns. Influence of socio-economic class, gender, and age on diet, health, and disease.

FCS 165 Fundamentals of Nutrition (3)
3 hours lecture
Note: *Cross listed as HE 165*
Transfer acceptability: *CSU; UC – FCS 165, FCS 185, BIOL 185, HE 165 combined: maximum credit, one course; CAN FCS 2*
The study of how food nourishes the body. Investigation of diet fads and fallacies, eating for fitness, and planning meals for optimum health throughout the life cycle.

FCS 170 Nutrition: Eating Disorders and Obesity(3)
3 hours lecture
Transfer acceptability: *CSU*
Review of etiology, incidence, socio-economic influences, pathogenesis, and treatments. Techniques studied include modification of diet, activity, and behavior. Of interest to those needing vocational information for work with anorexics, bulimics, and the obese.

FCS 185 Science of Human Nutrition (3)
3 hours lecture
Note: *Cross listed as BIOL 185*
Transfer acceptability: *CSU; UC – FCS 165, FCS 185, BIOL 185, HE 165 combined: maximum credit, one course*
Science of food, nutrients, and other substances therein; processes by which the organism ingests, digests, absorbs, transports, utilizes, and excretes food substances. Emphasis on biological, chemical, and physiological implications to human nutrition.

FCS 197 Family and Consumer Sciences Workshop (.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 3 times*
Transfer acceptability: *CSU*
Materials relative to the field of Family and Consumer Sciences.

FCS 295 Directed Study in Family and Consumer Sciences (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*
Transfer acceptability: *CSU*
Independent study for students who have demonstrated skills and/or proficiencies in Family and Consumer Sciences 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.