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Now accepting applications for Business Degree Program through Mt. San Jacinto College and CSU San Marcos.

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California State University SAN MARCOS
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STATE OF CALIFORNIA – INDUSTRY SECTORS

The State of California has identified fifteen industry sectors which each contain multiple career pathways in which to develop programs of study. Mt. San Jacinto College offers a variety of CTE programs in eleven of those industry sectors. Under each industry sector, students will find a brief industry sector overview, certificate and/or degree options, employment concentration certificate information (if available) and potential career opportunities. Choose your path — there is one for everyone!

Program Awards

Each of the programs highlighted in this catalog leads to some type of award or degree. Our programs offer Associate in Science Degree, Associate in Arts Degree, State Approved Certificates and/or Employment Concentration Certificates.

Associate in Science Degree: The Associate in Science Degree will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

Associate in Arts Degree: The Associate in Arts Degree will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

Transfer Associate Degrees: California Community College students that have earned a transfer associate (A.A./A.S.-T) degree are guaranteed junior standing and priority admission consideration over all other transfer students when applying to a CSU baccalaureate (B.A./B.S.) degree program that has been deemed similar to the student’s community college area of emphasis. Once admitted to a similar baccalaureate (B.A./B.S.) degree program, the transfer associate degree student will only be required to complete 60 additional prescribed units to qualify for the similar baccalaureate (B.A./B.S.) degree.

State Approved Certificate: These programs take 18 units or more to complete and may lead to an Associate in Science Degree.

Employment Concentration Certificates: These are locally awarded certificates that take 18 units or less to complete and may help an individual renew or update career skills, may lead to employment competency or salary advancement but do not lead to an Associate in Science Degree. They can be used as a stepping stone towards earning a State Approved Certificate or Associate in Science Degree.

Counseling

Students should always see a counselor to develop an educational plan. CTE Counseling is available by contacting the Counseling Office at one of our 4 locations:

- **San Jacinto Campus**  951-487-3255
- **Menifee Valley Campus**  951-639-5255
- **Temecula Education Complex**  951-693-5309
- **San Gorgonio Pass Center**  951-922-1408

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<td>Diagnostic Medical Sonography (DMS)</td>
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Dear Students,

Through the Career Technical Education (CTE) Department at Mt. San Jacinto College, we provide multiple educational pathways designed to provide both professional and technical skills essential for you to be competitive in today’s job market. These options include Associates in Science degrees, Associate in Arts degrees; State approved certificate programs, occupational internships, and flexible training courses. CTE at Mt. San Jacinto College provides valuable training whether you are at the beginning of your educational journey, hoping to expand your professional skill-set or looking for an entirely new career.

Here at Mt. San Jacinto College our programs are developed in collaboration with our business and industry partners so they are responsive to today’s ever-changing job market. It is the goal of CTE to provide high quality programs that effectively prepare students to enter occupations available in some of today’s fastest growing industries or to transfer to four-year universities and continue their education. Programs are designed to be affordable and flexible, with courses offered in both traditional classroom settings, online, as well as during the day and at night. Our desire is for you to successfully reach your goals.

Choose your future — there is sure to be a path for you through CTE at Mt. San Jacinto College!

Joyce Johnson, RN, MSN
Dean, Career Technical Education
CTE Leadership and Support

Directors, Program Coordinators and Site Supervisors

Nancy Alvarado  
Child Development & Education

Matthew Leyden  
CTE Counselor/  
CWEE Coordinator

Susanne Mata  
Career & Technical Education

Teri Safranek  
Continuing Education & Workplace Training

Kathy Valcarcel  
Job Connect/CalWORKS

Angela Aceves  
Career & Technical Education

Beatriz Aguilar  
Continuing Education & Workplace Training

Kimberly Brais  
Career & Technical Education

Dawn Bridge  
Career & Technical Education

Bing Bruce  
Audio & Video Technology

Susan King  
Job Connect/CalWORKS

Kristine Kley  
Job Developer, Job Connect

Soraya Ledesma  
Continuing Education & Workplace Training

Lynn Mann  
Business Education & Computer Information Systems Departments

Deborah McKee  
Career & Technical Education, Special Programs

Kaye Melsheimer  
Business Education & Computer Information Systems Departments

Niki Love  
Multimedia Department

Melissa Ott  
Photography Department

Vinson “Cody” Thorn  
Automotive Technology

Departmental Support Staff
Mt. San Jacinto College offers many degree programs as well as a vast array of state approved certificates and locally approved employment concentration certificates for eleven of the fifteen California Industry Sectors as shown in the following table. Please refer to the MSJC College Catalog for specific program requirements and course details. An "X" will be in the box indicating if employment concentration certificates, certificates or Associate's degrees are available for the different programs.

<table>
<thead>
<tr>
<th>Program</th>
<th>Employment Concentration</th>
<th>Certificate</th>
<th>Degree</th>
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<td><strong>Agriculture and Natural Resources Industry Sector</strong></td>
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<td>Golf and Grounds</td>
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<td>Irrigation Technician</td>
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<tr>
<td>Landscaping Operation</td>
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<td><strong>Arts, Media and Entertainment Industry Sector</strong></td>
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<tr>
<td>Audio and Video Technology</td>
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<td>A.A.</td>
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<tr>
<td>Advanced Audio Video Technology</td>
<td>X</td>
<td>A.A.</td>
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<tr>
<td>Multimedia</td>
<td>X</td>
<td>A.S.</td>
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<td>Animation Production</td>
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<td>Video Production</td>
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<td>Web Design and Development</td>
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<td><strong>Photography</strong></td>
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<td>Early Intervention and Inclusion</td>
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<td>Health and Safety</td>
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<td>Infant/Toddler</td>
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<td>School-Age Child Care</td>
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<td>Science</td>
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## Certificates, Degrees and Employment Concentrations

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<th>Employment Concentration</th>
<th>Certificate</th>
<th>Degree</th>
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<td><strong>Engineering and Design Industry Sector</strong></td>
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<td>Solar Photovoltaic Technology</td>
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<tr>
<td>Solar Thermal Technology</td>
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<td>Surveying</td>
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<td>X</td>
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<td><strong>Geographic Information Science</strong></td>
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<td>Engineering</td>
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<td>Multimedia</td>
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<td>Office Administration Technician</td>
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<td>Small Business Operations</td>
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<td><strong>Health Science and Medical Technology Industry Sector</strong></td>
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## Certificates, Degrees and Employment

### Concentrations

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<td><strong>Public Services Industry Sector</strong></td>
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<td>General Technician</td>
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<tr>
<td>Honda Fast track</td>
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## Our Commitment to Student Success

The Administration and Staff of MSJC are constantly finding ways to help our students succeed by:

- Providing classes in a diverse learning environment: traditional classroom setting, online and hybrid environment
- Offering classes in the daytime, evenings and on weekends at our four sites: Menifee Valley Campus, San Jacinto Campus, San Gorgonio Pass Campus, Temecula Education Complex
- Meeting with community and business leaders to collect feedback and review the ever-changing workplace demands
- Maintaining classroom technology with current industry standards

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All of the Career Technical Education Programs at Mt. San Jacinto College have an Advisory Committee. CTE Advisory committees play an integral role in shaping the programs and curricula development at Mt. San Jacinto College. The committees help ensure that our programs remain in touch with the needs of local business and industry and that our students receive relevant instruction. Each CTE Advisory Committee consists of a group of individuals selected to represent broad points of view relative to a specific CTE area. The members should have a strong sense of commitment to the development of our educational program and our students. Members are recognized by the MSJC District Board of trustees and are invited to advise program faculty in the area of curriculum, career guidance, facilities, funding, and staffing. All of MSJC’s CTE programs have an advisory committee that meets at least once per academic year.

**COMMITTEE MEMBERSHIP**

Membership on a MSJC CTE Advisory Committee is not limited to a specific portion of a particular occupation; rather membership includes a variety of individuals with diverse backgrounds that can provide varying advice and a broad perspective. Most CTE programs enjoy greater benefits when the CTE Advisory Committee represents both workers and supervisors. Therefore, our CTE Advisory committees combine people who perform the skills and those who hire and supervise workers. These individuals work together to give the instructional staff an accurate picture of the community’s employment needs. The following groups of people are considered when identifying potential new CTE Advisory Committee members:

- Business Owners
- Employees
- Industry Representatives
- Students
- Community Members
- Supervisors
- Human Resource Directors
- Labor Representatives
- Parents

**Actively involved Advisory Committee Members share common characteristics:**

**Leadership** - Committee members should have demonstrated leadership within their company, occupation and/or the community. They should work well with their committee, as well as college staff, and possess the ability to present their ideas effectively.

**Business Experience** - Employer representatives will be selected from business or industry firms that are recognized for their progressive practices and efficient operations.

**Adequate Time** - Members selected must be able to devote sufficient time and enthusiasm to the committee’s work. Serving will require participation in at least one committee meeting per year.

If you are interested in serving on one or more of our CTE Advisory Committee’s, or would like specific meeting dates, and locations, please contact our CTE Special Programs Office for more information, via phone @ 951-639-5635 or via email at dmckee@msjc.edu. We are always looking for community members and business professionals to be a part of our CTE Advisory groups.

**Helpful Resources:**

http://www.msjc.edu/cte/Pages/default.aspx

http://statecenter.com/resources/industry-sectors

http://www.statewidepathways.org/
Continuing Education and Workplace Training provides professional, personal and career development courses, workshops and seminars that are relevant, current and are designed to meet the highest expected standards. The department is divided into three areas of FOCUS:

• Not-for-credit fee based classes
• Non-credit free classes
• Workplace Training – Employer paid on-site training

Note: The not-for-credit and the workplace training programs are self-supporting; they are not supported by the State of California. The non-credit offerings are supported by a combination of grants and the State of California.

**FOCUS – Fee-Based Not-for-Credit Classes**

**Personal Enrichment** classes and short seminar series provide personal development, leisure and recreation opportunities for the whole family. Topics include art, crafts, cooking, dance, language, music, and travel opportunities for cultural enrichment.

**Professional Development** classes and workshops are designed to help update your workplace skills. Topics include: Notary, CPR, MS Word, Excel, PowerPoint, QuickBooks and Office Skills Boot Camp.

**Career Training & Certificates** are short term training programs to assist the individual learner in gaining marketable job skills. Topics include: Pharmacy Technician, Optical Assistant, Medical Billing & Introductory Coding, Advanced Medical Coding, Photo Voltaic (PV) Solar Design and Installation Training, Veterinary Assistant, Personal Fitness Trainer, Home Inspection, Phlebotomy Technician and many more on-line options.

**College for Kids** classes are designed for fun interactive (experiential) learning for youth ages 8 to 17. Our summer program is expanding to include STEM classes throughout the year to help improve our local student's science, technology, engineering, math and analytical thinking skills.

**FOCUS – Free Non-Credit Classes**

- English as a Second Language (ESL)
- Citizenship
- GED (General Education Development) Exam Preparation
- Older Adults: Writing, Art, and Community Music Programs

**FOCUS – Workplace Training**

Our contract training program provides workplace training for our local business community. Training for employees can be provided on site or at a campus location. Classes can be for credit or not-for-credit to help improve and enhance productivity and a company’s bottom-line. Areas of training include: customer service, English as a Second Language, accent reduction, supervision, LEAN Manufacturing, regulatory compliance updates, automotive specialties, medical insurance billing, software updates or specific skills customized for unique business needs.
The Cooperative Work Experience Education Program (aka Occupational Internship Program) at Mt. San Jacinto College provides employers with technologically advanced students to serve as interns in the workplace. Student interns assume the duties of a part-time employee and are expected to have the basic technological training needed to fulfill the requirements of the position for which they are interning. Most students spend 10-15 hours per week for 12-15 weeks on the job while they are completing their second year at Mt. San Jacinto College. Students earn college credits for serving as interns which may be applied towards their certificate or degree.

The Cooperative Work Experience Education (CWEE) Program is a unique program that has been integrated into academic departments throughout the College. The program allows students to apply knowledge gained in their college courses with practical work experience to develop career readiness skills.

**PROGRAM COMPONENTS**

**Online Orientation** – Students interested in the Occupational Internship program will need to complete the CWEE Online Orientation and pass the exam with a score of 20.

**Training Plan** – The student, instructor, and work site supervisor work together to develop three objectives for the student to complete.

**Timesheets** – Are completed by the student to track hours worked.

**1-2 Page Typed Essay** – Submitted at the end of the semester and completed by the student. This document summarizes the initial objectives and how the student met those objectives. Faculty may determine the length of this assignment.

**Final Self-Evaluation (Student)** – The student will reflect on the following:
- What they have learned
- Challenges faced in the internship
- How they will continue to grow professionally

**Final Evaluation (Employer)** – At the end of the semester the student, worksite supervisor, and instructor meet for a final evaluation. Here the student presents a verbal summary of each objective and the tools used to complete each objective.

**Attend Job Skills Workshop** – By the end of the semester, students must attend a Job Skill Workshop. The workshop focuses on job search, résumé building, interviewing skills and professionalism in the work place.

**STUDENTS BENEFIT BY:**

- Earning college credit
- Receiving earned income or vital work experience
- Obtaining hands-on work experience
- Applying classroom theory to real work situations
- Developing workplace skills

**COMPANIES BENEFIT BY:**

- Interns who are an excellent worker pool
- Interns for reduce recruitment and training costs
- Interns with reliable & skilled permanent employees
- Interns who contribute to business success
- Interns will increase visibility & public outreach

**INSURANCE COVERAGE:**

The college provides insurance coverage for those students participating in the unpaid techniques.

**A HUGE THANK YOU TO SOME OF OUR INTERNSHIP PARTNERS:**

Canear Real Estate  
Eastern Municipal Water District  
Hemet Police Department  
Hemet San Jacinto Valley Property Managers  
Light House Properties  
Maurice Car’rie Winery  
Murrieta Police Department  
Native American Environmental Protection Coalition  
Predator Motorsports  
Riverside County Sheriff’s Department  
Riverside County Substance Abuse  
Riverside Recovery Resource  
Somerset  
Sun Ray Addictions Counseling  
Tarbell Realtors  
The Leadership Source
“We have such great CTE programs because of our great faculty!”

Don’t tell people how to do things, tell them what to do and let them surprise you with their results.
—George S. Patton
“We have such great CTE programs because of our great faculty!”

We may affirm absolutely that nothing great in the world has been accomplished without passion.

—Hegel

Thank you for your leadership and dedication!
High school articulation is a process where a student can take a high school or ROP program class and receive college credit for the class(es) at MSJC.

Articulating college courses with our local high schools/districts helps to build career pathways that help students to transition seamlessly from high school to college programs of study. Having high school students complete entry level courses at the high school through articulation may result in more students entering intermediate level classes in your program of study. The high school students must maintain a B or better in the class and pass the credit exam with an A or B. Students who pass the exam will have mastered the same competencies and learning objectives that are expected in the comparable course Mt. San Jacinto College.

How can articulated credit help students?

• Students get a jump start by earning college credit while still in a high school or ROP program
• Students do not repeat coursework
• Students will obtain basic skills and knowledge making them “career and college ready”
• Students save money on the cost of college tuition and textbooks
• Connect their learning to career pathways

We currently have articulation agreements for many of our CTE Programs including Administration of Justice, Allied Health, Audio Video Technology, Automotive, Biotechnology, Business, Child Development, Computer Applications, Engineering, GIS, Horticulture, and Multimedia.

For more information about High School Articulation, please visit our CTE Transitions website at:

http://www.msjc.edu/CTETransitions/Pages/default.aspx
CTE Outreach Specialists are now available to promote MSJC’s CTE programs and services. Below are some of the activities they participate in:

- High School Career/Job Fairs
- MSJC College Hour
- MSJC Career/Job Fairs
- CTE Advisory Committee Meetings
- Community Career/Job Fairs
- High School Classroom Visits
- Business Summits
- Special CTE Program Events like GIS Day, Engineering Day, and FAVE

To schedule an activity with the CTE Outreach Specialists, contact the CTE, Special Programs Office at 951-487-3437 or via email at eaglecte@gmail.com

For more information you can also visit the following websites at:
- http://www.msjc.edu/cte/Pages/default.aspx
- http://www.msjc.edu/CTETransitions/Pages/default.aspx
Career Technical Education: Career Technical Education (CTE) programs are designed to engage, motivate, and prepare students for the future. The academic, technical, and workplace skills offered through CTE are essential to success for all working adults. They are essential to society in addressing the challenges posed not only by a changing economy, but also by a changing world. CTE can no longer exist as a separate educational alternative; it must be woven into the very fabric of our educational delivery system. Access must therefore be assured for all students through a system that aligns programs, curricula, and services across educational segments, programs, and disciplines.

State of California Industry Sectors: In response to labor market data and the State’s changing workforce needs, the California Department of Education identified fifteen industry sectors that exist in the State of California. Each sector contains multiple career pathways. Mt. San Jacinto College offers a variety of certificate and degree options that align with eleven of those fifteen industry sectors and multiple career pathways. Our programs and curricula are designed to be responsive to the economy, inclusive of relevant workplace skills and engaging to students. Our CTE Programs and the certificate, degree and employment concentration options for each are outlined in this CTE Catalog. Options are available for young students to explore various career opportunities as well as for adults to learn and upgrade their skills making the transition to a new position or career feasible.

The industry sectors emphasized at Mt. San Jacinto College in our Career Technical Education (CTE) Department include:

- Agriculture and Natural Resources
- Arts, Media and Entertainment
- Education, Child Development and Education
- Energy and Utilities
- Engineering and Design
- Finance and Business
- Health Science and Medical Technology
- Hospitality, Tourism and Recreation
- Information Technology
- Public Services
- Transportation
The Agriculture and Natural Resources sector is designed to provide a foundation in agriculture for all agriculture students in California. Students engage in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and skill preparation in seven pathways. The pathways emphasize real-world, occupationally relevant experiences of significant scope and depth in Agricultural Business, Agricultural Mechanics, Agriscience, Animal Science, Forestry and Natural Resources, Ornamental Horticulture, and Plant and Soil Science. Integral components of classroom and laboratory instruction, supervised agricultural experience projects, and leadership and interpersonal skills.

**Turf & Landscape Management**: The non-transfer Certificate/Associate degree (AS) in Turf & Landscape Management is primarily designed to prepare the student for entry into careers associated with golf course management and turf management. This program specifically provides students with a strong foundation in turf management, water usage, fertility, soils, horticulture and human resource management for golf courses, recreational parks, sports fields and general landscape areas. This program also prepares students to enter the job market as a golf course superintendent, field crew supervisor, irrigation technician, equipment manager, grounds person for parks, cities, and school districts, or field crew foreman for landscape contractors. The Certificate/Associate degree (AS) program in Turf & Landscape Management prepares students with the technical and analytical skills necessary for managing a golf course or turf/ horticultural area. For individuals currently working within these fields, there may be potential for salary and/or career advancement.

**CERTIFICATE**

The Turf & Landscape Management certificate includes 9 units of foundational courses and 9 units of elective courses per employment concentration.

*Certificate in Turf & Landscape Management*

(18 units)

**Required Core Courses**

HORT-101 Horticulture Science 3 units  
HORT-102 Introduction to Turfgrass Management 3 units  
HORT-104 Soil Science and Management 3 units

**DEGREE**

An Associate in Science (AS) degree may be earned by completing the 18 unit certificate requirements in Turf & Landscape Management and all MSJC General Education Option A requirements.

**EMPLOYMENT CONCENTRATIONS**

- Golf and Grounds Concentration (9 units)
- Irrigation Technician Concentration (9 units)
- Landscaping Operation Concentration (9 units)

*Please see the Mt. San Jacinto College Catalog for course descriptions and requirements.*

**CAREER OPPORTUNITIES**

- Landscaping and Grounds Keeping Workers
- First-Line Supervisors of Landscaping
- Lawn Service and Grounds Keeping Workers
- Pesticide Handler, Sprayer and Applicator

* All career opportunities listed in this catalog are representative careers in each industry sector. There are no guaranteed positions for students completing these programs. Education and work experience required will vary by employer. The salary and benefits for specific occupations will be dependent on work experience, education, background and employer. For more information about these industry sectors and/or occupations visit www.onetonline.org.
The Arts, Media and Entertainment Industry sector provides multiple career options, especially in California. Most careers in this industry combine creativity with technical skills. The work in this sector has a tendency to be largely project-based, requiring uniquely independent work and self-management career skills. New technological developments are also constantly reshaping the boundaries and skill sets of many arts career pathways. Consequently, core arts sector occupations demand constantly varying combinations of artistic imagination, symbolic connections, and technical skills.

Successful career preparation involves both in-depth and broad academic preparation as well as the cultivation of such intangible assets as flexibility, problem-solving abilities, and interpersonal skills. Careers in the Arts, Media, and Entertainment sector fall in three general pathways: Media and Design Arts, Performing Arts, and Production and Managerial Arts. Mt. San Jacinto College has several programs that align with this industry sector that will help students to explore their creative side and develop their technical skills—Audio Video Technology, Multimedia and Photography.

Audio & Video Technology: The Audio & Video Technology Program is a non-transfer program offering two A.A. degrees and two certificates. Many courses do, however, transfer; however, this program is not usually associated with a four-year degree. The program features a radio station, television station and studio, and three recording studios. This program prepares students for a “hands on” and theoretical applications in audio and video. Students will become familiar with devices used in television, radio, film, recording studios, and educational institutions. Some Protools certifications may be available. Most audio classes are cross-listed under music. For many individuals currently working within these fields, there may be potential for salary and/or career advancement.

Multimedia: The non-transfer Certificate/Associate degree (AS) in Multimedia is designed to prepare students for entry into careers associated with web design, animation and video production. This program specifically provides students with a strong foundation in information and graphic design applications and concepts, professional production skills, verbal and visual creativity, and individual and team accountability and interaction. For individuals currently working within these fields, there may be potential for salary and/or career advancement.

Photography: The MSJC Photography program offers non-transfer certificate and Associate degree opportunities that respond to new-media industry standards in the digital paradigm. This immersive path of study includes extensive technical and creative production guidance and skill sets. The career-oriented student will study the ubiquitous nature of photographic visual communication while gaining a comprehensive understanding of digital photography workflow and digital asset management.

The digital fixing of the photographic image with electronic light sensors and computer software rivals milestones in history like the invention of paper, the printing press, or chemistry-based image fixing. Extinct is hand calligraphy in advertising, illuminated manuscripts in printing or the emulsion-based image on tin, for example. Emulsion-based photography has methodically given way to a digital era in image production — an evolution akin to dinosaurs evolving into birds — only faster. For these reasons a versatile and truly state-of-the-art digital studio, light room, and imaging lab has been designed and constructed to facilitate the photography department’s industry-responsive digital curriculum. Beginning through advanced students will avail themselves of a 1,325 square foot digital imaging studio with high ceilings and versatile photographic environments — all networked to a digital light room and other adjoining learning facilities.

Students will benefit from hands-on exposure to real-world tools. These tools are fast, high-resolution capture, manipulation and output devices that will allow students to fully explore the photographic realm. For individuals currently working within these fields, there may be potential for salary and/or career advancement.

## CERTIFICATES

**Certificate in Audio Technology (18 units)**

### Required Courses (12 units)

- **AUD-140 / MUS-140** Beginning Studio Recording 3 units
- **AUD-141/MUS-141** Intermediate Studio Recording 3 units
- **AUD-142/MUS-142** Advanced Studio Recording I 3 units
- **AUD-143/MUS-143** Computer Audio Editing 3 units

### Elective Courses (6 units)

- **AUD-145/MUS-145** Midi & Computer Recording 3 units
- **AUD-146/MUS-146** Recording Music and Live Sound 3 units
- **AUD-147/BADM-147/MUS-147** The Music & Audio Business 3 units
- **AUD-148** Radio Production 3 units
- **AUD-152/MUL-123** Video Production I 3 units
- **AUD-153/MUL-223** Video Production II 3 units
- **MUS-100** Introduction and Appreciation of Music 3 units
- or
- **MUS-100H** Honors Introduction and Appreciation of Music 3 units
- **MUS-101** Music Fundamentals 3 units
- **MUS-107** Introduction and Appreciation of American Music 3 units
- or
- **MUS-107H** Honors Introduction and Appreciation of American Music 3 units

Continued on page 17
Arts, Media and Entertainment

Certificate in Advanced Audio Technology (27 units)

Required Courses (18 units)
- AUD-140/MUS-140 Beginning Studio Recording 3 units
- AUD-141/MUS-141 Intermediate Studio Recording 3 units
- AUD-142/MUS-142 Advanced Studio Recording I 3 units
- AUD-143/MUS-143 Computer Audio Editing 3 units
- AUD-145/MUS-145 Midi & Computer Recording 3 units
- AUD-146/MUS-146 Recording Music and Live Sound 3 units

Elective Courses (9 units from the following)
- AUD-147/BADM-147/MUS-147 The Music & Audio Business 3 units
- AUD-148 Radio Production 3 units
- AUD-152/MUL-123 Video Production I 3 units
- AUD-153/MUL-223 Video Production II 3 units
- MUS-100 Introduction and Appreciation of Music 3 units
  or
- MUS-100H Honors Introduction and Appreciation of Music 3 units
- MUS-101 Music Fundamentals 3 units
- MUS-107 Introduction and Appreciation of American Music 3 units
  or
- MUS-107H Honors Introduction and Appreciation of American Music 3 units

Certificate in Multimedia (24 units)

Required Courses (12 units)
- ART-120 2D Design 3 units
- MUL-110 Introduction to Multimedia 3 units
- MUL-112 Interactive Media Design I 3 units
- MUL-114 Multimedia Project Management 3 units

Elective Courses (12 units)
- ART-108 Beginning Drawing 3 units
- AUD-145/MUS-145 Midi & Computer Recording 3 units
- CSIS-115A Web Development – Level 1 3 units
- CSIS-125A Web Development – Level 2 3 units
- MUL-116 Social Media Marketing 3 units

- MUL-123/AUD-152 Video Production I 3 units
- MUL-125 Interactive Motion Media 3 units
- MUL-131 3D Animation 3 units
- MUL-139 Advanced Animation 3 units
- MUL-149 Occupational Internship: Multimedia 1-4 units
- MUL-218 Dynamic Web Design 3 units
- MUL-299 Special Projects: Multimedia 1-3 units
- THA-135 Introduction to Film 3 units

Certificate in Photography (18 units)

Required (15 units)
- ART-120 2D Design 3 units
- MUL-110 Introduction to Multimedia 3 units
- PHOT-125 Digital Photography Production I 3 units
- PHOT-224 Digital Photography Production II 3 units
- PHOT-225 Digital Photography Production III 3 units

Electives (3 units)
- AUD-152/MUL-123 Video Production I 3 units
  or
- BADM-104 Business Communications 3 units
  or
- BADM-104H Honors Business Communications 3 units
- HIST-136/THA-136 Cultural History of American Motion Pictures 3 units
- MUL-112 Interactive Media Design I 3 units
- MUL-114 Multimedia Project Management 3 units
- MUL-131 3D Animation 3 units
- MUL-149 Occupational Internship: Multimedia 1-3 units
- PHOT-090 Digital Imaging Studio Laboratory 1 unit
- PHOT-091 Professional Production Studio Laboratory 1 unit
- PHOT-130 History of Still Photography 3 units
- PHOT-299 Special Projects: Photography 1-3 units

All career opportunities listed in this catalog are representative careers in each industry sector. There are no guaranteed positions for students completing these programs. Education and work experience required will vary by employer. The salary and benefits for specific occupations will be dependent on work experience, education, background and employer. For more information about these industry sectors and/or occupations visit www.onetonline.org.
DEGREES

A.A. in Audio Technology (18 units)
In addition to the 18 units of the Audio Technology Certificate Program, students may complete MSJC General Education Option A requirements for the Associate in Arts (AA) degree in Audio Technology.

A.A. in Advanced Audio Technology (27 units)
In addition to the 27 units of the Advanced Audio Technology Certificate Program, students may complete MSJC’s General Education Option A requirements for the Associate in Arts (AA) degree in Advanced Audio Technology.

A.S. in Multimedia
The major requirement for an Associate in Science degree (AS) in Multimedia may be met by completing 24 units of those required for the Multimedia certificate. Students planning to transfer should major in General Education and consult with instructors and counselors; since some Multimedia courses may satisfy MSJC General Education Option A requirements.

A.S. in Photography
The major requirement for an Associate in Science degree in Photography may be met by completing the core photography curriculum and any electives totaling 18 units and meeting all other MSJC General Education Option A requirements.

EMPLOYMENT CONCENTRATIONS

Animation Production (15 units)
This Employment Concentration Certificate provides the preparation necessary for an entry-level 2D production job, such as Cel Animator Assistant, In-between, Clean-Up Artist or Stop-Motion Animator or entry-level 3D production job, such as Assistant in Modeling, Shading or Lighting areas.

- MUL-125 Interactive Motion Media 3 units
- MUL-131 3D Animation 3 units
- MUL-133 Production Management - Entertainment 3 units
- MUL-134 2D Animation 3 units
- THA-135 Introduction to Film 3 units

Video Production (15 units)
This Employment Concentration Certificate provides the preparation necessary for an entry-level video production job, such as Assistant to the Camera Operator, Editor Assistant and Production Assistant. These positions perform work for TV broadcasts, advertising, video production, or motion pictures. They work with Producers or Directors responsible for creative decisions, such as interpretation of script, choice of guests, set design, sound, special effects, and choreography.

- MUL-110 Introduction to Multimedia 3 units
- MUL-123/AUD-152 Video Production I 3 units
- MUL-133 Production Management - Entertainment 3 units
- MUL-223/AUD-153 Video Production II 3 units
- THA-135 Introduction to Film 3 units

Web Design (15 units)

- CSIS-125A Web Production – Level 2 3 units
  or
- MUL-116 Social Media Marketing 3 units
- MUL-110 Introduction to Multimedia 3 units
- MUL-112 Interactive Media Design I 3 units
- MUL-125 Interactive Motion Media 3 units
- MUL-218 Dynamic Web Design 3 units

CAREER OPPORTUNITIES

- Audio Video Equipment Technician
- Security Analysts, Web Developers and Computer Network Architects/Designer
- Photographer
- Broadcast and Sound Engineering Technicians
- Multimedia Artists and Animators
- Radio Disc Jockeys
- Film & Video Editor
The Education, Child Development, and Family Services sector is composed of four career pathways: Child Development, Consumer Services, Education, and Family and Human Services. This industry sector is one of the fastest growing in the nation. It is projected to grow nearly 40% by 2016. The high staffing needs and growing emphasis on improving education will create exciting career opportunities in the child development field.

**Child Development and Education:** The Child Development and Education (CDE) Program offers a transfer degree in Early Education Studies, a non-transfer degree and Certificate in Child Development and Education as well as Early Intervention and Inclusion. The CDE major includes required courses in child development and general education electives.

Child Development Education is the study of the physical, psychosocial and cognitive growth and development of the child from conception through adolescence. The purpose of this major is to provide a sound academic program in Child Development and to prepare students to work with and advocate for children and families in a variety of school and community settings.

In addition to theoretical principles, the curriculum offers practical skills and on-site training that will prepare students for employment in the field of Education.

Child Development and Education students pursue careers in childcare, preschool teaching and administration, early intervention services, parent education, primary, secondary and post-secondary education, teaching and supporting children with special needs or working with a variety of counseling, social service and community agencies.

The program fulfills the required child development course work for the State issued Child Development Permit. Information regarding this permit and/or the Child Development and Education and Early Intervention and Inclusion Certificates is available from the CDE Department. All course work leading to a certificate or degree must be completed with a minimum grade of “C” (2.0) or better.

**CHILD DEVELOPMENT AND EDUCATION DEGREES**

**A.S.-T in Early Childhood Education for Transfer (24 units)**

An Associate in Science degree in Early Childhood Education for Transfer will fulfill the requirements for students to transfer to a four-year college or university as a Early Childhood Education major.

The major required for an A.S.-T in Early Childhood Education for Transfer may be met by:

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.

- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.

- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.

- Obtainment of a minimum grade point average of 2.0. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.

- Obtainment of a minimum grade point average of 2.0.

**A.S. in Child Development and Education (43 units)**

An Associate in Science (AS) degree in Child Development and Education may be earned by completing the 43 units required for the MSJC Child Development and Education Certificate, and all MSJC General Education Option A requirements.

**A.S. in Early Intervention and Inclusion (43 units)**

An Associate in Science (AS) degree in Early Intervention and Inclusion may be earned by completing the 43 units required for the MSJC Child Development and Education Certificate, and all MSJC General Education Option A requirements.

**CERTIFICATES AVAILABLE FOR CHILD DEVELOPMENT AND EDUCATION**

**Certificate in Child Development and Education (43 units)**

**Certificate in Early Intervention and Inclusion (43 units)**

**EMPLOYMENT CONCENTRATIONS**

- Administration (6 units)
- Art (5 units)
- Assistant Teacher (6 units)
- Associate Teacher (12 units)
- Communication (6 units)
- Deaf Culture (6-7 units)
- Early Childhood Special Education (9 units)
- Elementary Education (6 units)
- Health & Safety (6 units)
- Infant/Toddler (6 units)
- Language and Literacy (6 units)
- Nutrition (6 units)
- School-Age Child Care (6 units)
- Science (6 units)

*Please See the MSJC College Catalog for a more comprehensive look at the Child Development Education program including certificates, degrees, courses, permits, requirements and Employment Concentration Certificates.

**CAREER OPPORTUNITIES IN CHILD DEVELOPMENT AND EDUCATION**

- Preschool Teacher
- CDE Permit: Teacher
- CDE Permit: Site Supervisor
- CDE Permit: Assistant Teacher
- CDE Permit: Associate Teacher
- CDE Permit: Master Teacher
The Energy and Utilities sector is designed to provide a foundation in energy and utilities for all students in California. The pathways emphasize real-world, occupationally relevant experiences of significant scope and depth in Electromechanical Installation and Maintenance, Energy and Environmental Technology, Public Utilities, and Residential and Commercial Energy and Utilities. The standards integrate academic and technical preparation and focus on career awareness, career exploration, and skill preparation in four pathways. The following components are integral to the Energy and Utilities sector pathways: classroom, laboratory, hands-on contextual learning, project-and work-based instruction, internship, community classroom, cooperative career technical education, and leadership development. The Energy and Utilities sector standards prepare students for continued training, postsecondary education, or entry to a career.

Water Technology: Water Technology is a career oriented non-transfer vocational program offering courses leading to a certificate and/or an Associate degree. The Water Technology program at MSJC emphasizes a real world approach to diagnostic skill building and a thorough understanding of system theory and operations. Professionalism, workplace skills and responsibilities are stressed along with safety and an awareness of hazardous materials control. Graduates are primarily employed by cities, counties, federal agencies and industry that operate and maintain water treatment, water distribution, wastewater collection and/or wastewater treatment systems. They may also find employment in support roles such as equipment sales. For individuals currently working within these fields, there may be potential for salary and/or career advancement.

DEGREE

The 18 units in the certificate plus all MSJC General Education Option A requirements for a total of 60 units is required to earn an Associate in Science degree in Water Technology. See counselor for recommended vocational and academic courses

CERTIFICATE

Certificate in Water Technology (18 units)

Required Core Courses (3 units)
- WATR-100 Introduction to Water/Wastewater Operations 1 unit
- WATR-090 Basic Waterworks Mathematics 2 units

Elective Courses (any 15 units)
- WATR-103 Water Treatment Plant Operations I & II 3 units
- WATR-105 Water Treatment Plant Operations III, IV & V 3 units
- WATR-107 Water Distribution I & II 3 units
- WATR-109 Water Distribution III, IV & V 3 units
- WATR-120 Wastewater Treatment Plant Operations I & II 3 units
- WATR-122 Wastewater Plant Operations III, IV & V 3 units
- WATR-125 Laboratory Procedures for Water and Wastewater 3 units
- WATR-130 Environmental Laws and Regulations 3 units
- WATR-140 Wells, Pumps and Motors 3 units

CAREER OPPORTUNITIES

- Meter Reader, Utilities
- Water and Wastewater Treatment Plant and System Operators
- Water Resource Specialist
- Wastewater Engineer
The Engineering and Design sector is designed to provide a strong foundation in engineering and design for students in California. Students are engaged in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and career preparation. The demand for engineers in a variety of specializations throughout California and the nation will remain high. Mt. San Jacinto College offers the following programs that are aligned with this industry sector.

**Engineering Drafting Technology:** The Engineering Drafting Technology Program is a non-transfer program offering an A.S. degree, one certificate, and six employment concentration certificates. Many courses do, however, transfer to four year college and universities. The program will prepare students for a career in civil engineering, architecture, surveying, and manufacturing processing. Students become familiar with computer hardware and software programs which will assist in the aerospace industry to construction. The manufacturing courses allow students to step into jobs which concentrate in Small Wind Energy Technology, Solar Photovoltaic Technology, Solar Thermal Technology, Green Collar Manufacturing and Manufacturing Quality Assurance. For individuals currently working within these fields, there may be potential for salary and/or career advancement.

**Geography and Geographic Information Science (GIS):** The A.A.-T in Geography transfers to a four-year college and prepares students for a future in a field related to Geography. The Geographic Information Science (GIS) non-transfer Certificate and AS degree prepares students for GIS related careers which are enhanced by completion of a bachelor or graduate program. For students currently working within these fields there may be potential for salary and/or career advancement.

From local to global scales, geographers study political organization, transportation systems, marketing, economics, climate and weather, urban planning, land use development, globalization, and more. They examine distribution of land forms, study soils and vegetation, analyze limited resources such as water, and human impacts on the surface of the planet. In general, Geographers work in government research, public agencies, and are environmental consultants for nonprofit organizations.

Geographic Information Science (GIS) involves basic to advanced analysis and scientific research methods for identifying patterns, trends and relationships that are represented spatially and temporally on maps, large databases, reports and animations. Recent advancements make it possible to analyze, interact and produce maps using cloud technology. Students enrolled in our GIS courses online have the advantage of learning advanced communication and mapmaking skills that prepare them for a career in GIS, anywhere.

**DEGREES**

**A.S. in Engineering**

An Associate in Science degree in Engineering: Drafting Technology is available to students completing the certificate in Engineering: Drafting Technology and meeting all other MSJC General Education Option A requirements.

**A.A.-T in Geography for Transfer (18-21 units)**

An Associate in Arts in Geography for Transfer will fulfill the requirements for students to transfer to a four-year college or university as a Geography major. The major required for an A.A.-T in Geography for Transfer may be met by:

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.
- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtainment of a minimum grade point average of 2.0.

**Required Core (6 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG-101</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG-102</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

**List A: Select two to three (6-8 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG-103</td>
<td>Field Studies in Geography</td>
<td>2-4</td>
</tr>
<tr>
<td>GEOG-104</td>
<td>Physical Geography Lab</td>
<td>1</td>
</tr>
<tr>
<td>GEOG-105</td>
<td>Map Interpretation and Spatial Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEOG-106</td>
<td>Introduction to Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>GEOG-108</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG-111</td>
<td>Geography of California</td>
<td>3</td>
</tr>
<tr>
<td>GEOG-115</td>
<td>Introduction to Geographic Information Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Continued on page 22
List B: Select two (6-7 units)
ANTH-102 Cultural Anthropology 3 units
or
ANTH-102H Honors Cultural Anthropology 3 units
GEOL-100 Physical Geology: Dynamic Planetary Systems of Spaceship Earth 4 units
GEOG-107 Urban Geography 3 units

Units for Major 18-21
CSU General Education or IGETC Pattern 37-39
Possible double counting 10
Transferable Electives (as needed to reach 60 CSU transferable units)

Total Units for A.A.-T Degree 60 units
This Associate in Arts in Geography for Transfer degree is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. A student completing this degree is guaranteed admission to the CSU system, but not a particular campus or major. Students should meet with a counselor to develop an educational plan and receive university admission and transfer requirements.

Degree in Geographic Information Science (18 units)
An Associate in Science degree in GIS may be earned by completing the 18 units for the GIS Certificate, as well as all MSJC General Education Option A requirements (for a total of 60 units)

Certificate in Geographic Information Science (18 units)
Required Courses (12 units)
GEOG-105 Map Interpretation and Spatial Analysis 3 units
GEOG-115 Introduction to Geographic Information Science 3 units
GEOG-120 Intermediate Geographic Information Science 3 units
GEOG-125 Advanced Geographic Information Science 3 units

Elective Courses (minimum 6 units)
Elective courses are identified under the following concentration areas. Students must complete 6 units (any combination) under one concentration area to earn a Certificate in GIS. Once a Certificate in GIS has been earned, additional Certificates in GIS may be awarded for completion of 6 units in other concentration areas.

EMPLOYMENT CONCENTRATIONS*
Engineering Technology
Green Collar Manufacturing (15 units)
Manufacturing Quality Assurance (12 units)
Small Wind Energy Technology (15 units)
Solar Photovoltaic Technology (15 units)
Solar Thermal Technology (15 units)
Surveying (14-15 units)

Geography and Geographic Information Science (GIS)
Engineering (6 units)
Geographic Information Science (6 units)
Multimedia (6 units)
Programming (6 units)
Visual Design (6 units)

*Please See MSJC College Catalog for Full Description of the Employment Concentration Certificates.

CERTIFICATES
Certificate in Engineering: Drafting Technology (19 units)
Competency in English and math is required prior to completing a certificate. This may be accomplished by testing or completion of ENGL-101 and MATH-096.

Required Courses (16 units)
ENGR-154 Computer Aided Drafting I 3 units
ENGR-155 Computer Aided Drafting II 3 units
ENGR-164 Plane Surveying I 4 units
GEOG-115 Introduction to Geographic Information Science 3 units
PHOT-125 Digital Photography Production I 3 units

Elective Courses (3 units)
ENGR-156 SolidWorks I 3 units
ENGR-157 Microstation I 3 units
ENGR-167 Global Positioning Systems 4 units
ENGR-180 Introduction to Engineering 3 units
ENGR-181 Statics 3 units
ENGR-182 Strength and Materials 4 units

CAREER OPPORTUNITIES
• Engineering Technician
• CAD Technician
• Surveying Technicians
• Geographic Information Systems Technicians
• Geodetic Surveyors
• Mapping Technicians
The Business Department at Mt. San Jacinto College is committed to providing a broad and flexible professional education. Students master basic accounting principles and procedures before proceeding to the career path specializations. The specializations emphasize concepts of accounting and finance, including computer applications, taxes, investments, and asset management. Because almost every business organization has an accounting component, students with knowledge of accounting will find that opportunities exist in many other career paths in addition to those in finance and business. New advances in technology and direct marketing are expected to cause growth in a variety of business and finance careers including bankers, investors, auditors and accountants. Opportunities for self-employment and individual business development have never been better due to the Internet and advances in portable devices such as I-PADS and smartphones.

The Business Department at Mt. San Jacinto College is committed to providing a broad and flexible professional education. The Department offers a variety of programs and courses that fall within the Finance and Business that will provide students with learning opportunities relevant to everyday business and consumer decisions.

**Business Administration:** The Business Department offers an Associate in Science in Business Administration for Transfer degree. The Business Administration curriculum is designed for students who are interested in an encompassing formal business education. The A.S.-T in Business Administration for Transfer degree will assure preparation and readiness for transfer to the CSU system.

The Business Department also offers a non-transfer Associate degree in Business Administration structured around a set of core courses enabling students to develop a general business perspective and skills. The program offers students the knowledge and skills necessary to understand the changing global and domestic business environment and to prepare students for success in their professional careers.

The non-transfer Certificate in Business Administration provides a broader theoretical overview and approach to the business world while the non-transfer Certificate in Small Business Operations provides a focus on practical small business operation skills and techniques. The Business Department is committed to providing a broad and flexible professional education. Recognizing the importance of Accounting, Business Law, Economics, Finance, and Marketing in the business community; these areas provide students with learning opportunities relevant to everyday business and consumer decisions.

Transfer students may earn an Associate degree in Liberal Arts with an area of emphasis that includes Business and Technology. This degree path is designed to accommodate the differing requirements for a wide variety of transfer institutions and provides an efficient means to achieve transfer goals and career success.

**Business Clerical, Microsoft Applications Specialist and Office Administration:** Coursework in these areas will provide for the study of a wide range of subjects related to positions and careers in the modern office. The program includes training necessary to successfully perform in the many and varied Application Specialists and Administrative Assistant positions available in today’s job market. Job seekers will have opportunities in the private sector, for government agencies and with not-for-profit agencies such as secretaries, office manager or administrative assistants.

**Economics:** The Economics program is intended for students who are planning to transfer to a four-year college or for a business occupational area of his/her own choice. Transfer students may earn an Associate degree in Liberal Arts with an area of emphasis that includes either Business and Technology, or Social and Behavioral Sciences. These degree paths are designed to accommodate the differing requirements for a wide variety of transfer institutions and provide an efficient means to achieve transfer goals and career success.

**Finance and Business**

Persons trained in such fields as accounting, banking, and finance will find that their skills are highly marketable. The Finance and Business Industry sector employs more than 6 million people in related occupations nationwide. Students master basic accounting principles and procedures before proceeding to the career path specializations. The specializations emphasize concepts of accounting and finance, including computer applications, taxes, investments, and asset management. Because almost every business organization has an accounting component, students with knowledge of accounting will find that opportunities exist in many other career paths in addition to those in finance and business. New advances in technology and direct marketing are expected to cause growth in a variety of business and finance careers including bankers, investors, auditors and accountants. Opportunities for self-employment and individual business development have never been better due to the Internet and advances in portable devices such as I-PADS and smartphones.

The Business Department at Mt. San Jacinto College is committed to providing a broad and flexible professional education. The Department offers a variety of programs and courses that fall within the Finance and Business that will provide students with learning opportunities relevant to everyday business and consumer decisions.

Economics is a social science discipline focusing on the development of critical thinking and logical analysis, mathematical concepts and quantitative reasoning through communication and composition, problem-based learning, and the study of economic literature. These skills provide the fundamental foundation for academic and career path success. The economics curriculum is designed to equip students with the skills and knowledge of macroeconomics, microeconomics, and environmental economics; as related to politics and history, business and markets, governments and global economies, as well as social and cultural institutions.

Economic majors may pursue diverse career paths that include an array of opportunities, both in government, private, and international sectors.

**Hospitality/Tourism:** The Hospitality and Tourism industry offers exciting career opportunities in a variety of occupations. Students will gain skills and knowledge to prepare them for employment in the fast growing Temecula Valley region. Opportunities are available for those who want to serve guests at both hotels and wineries. Completion of courses in the Event Operations Employment Concentration Certificate will gain skills necessary to pursue careers in the travel tourism industry locally and worldwide.

**Office Administration:** The Business Department offers a non-transfer Associate degree in Office Administration designed to introduce the student to the study of a wide range of subjects related to positions and careers in the modern office. The program includes the training necessary to successfully perform in the many and varied Office Technician and Administrative Assistant type positions available in the job market.

Continued on page 24
The Management/Supervision Department is committed to providing a broad and flexible professional education. Recognizing the importance of office communications, office computer applications, records management, and virtual technology in the business community, these areas provide students with learning opportunities relevant to everyday business.

Management/Supervision: The Management/Supervision Department offers a non-transfer Associate degree and a non-transfer Certificate in Management/Supervision designed to prepare the student to direct the work of others. The program offers students the opportunity to acquire practical skills, technical knowledge and experience, and improve conceptual abilities and theory in the areas of analyses, evaluation, selection, communication, production, and follow-up. Both the Associate degree and the Certificate share the same lists of required, recommended elective, and elective discipline specific coursework with the difference being the required general education pattern for the degree.

The Management/Supervision Department is committed to providing a broad and flexible professional education. The studies introduce the student to dynamic processes of goals and objectives setting, planning, and achieving results for the organization. Also emphasized are the recognition of, and the leadership for, changing environments and relationships. Although emphasis is on business and economics of the organization, the learning is relevant to individual daily life.

Real Estate: The MSJC Real Estate program offers the opportunity to earn a non-transfer certificate or degree. This program also provides the educational requirements for the real estate broker’s license and real estate salesperson’s license (issued by the State of California Department of Real Estate). Coursework prepares students for work in this dynamic profession. Essential success skills are emphasized including; ethics, professionalism, sales, financing, property valuation, law, and economics.

CERTIFICATES

Competency in English and math is required prior to completing either certificate. This may be accomplished by testing or completion of ENGL-098 (English Fundamentals) and MATH-090 (Elementary Algebra).

Certificate in Business Administration (24 units)

<table>
<thead>
<tr>
<th>Required Courses (15 units)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT-124 Financial Accounting - Principles of Accounting I</td>
<td>3 units</td>
</tr>
<tr>
<td>or ACCT-124H Honors Financial Accounting - Principles of Accounting I</td>
<td>3 units</td>
</tr>
<tr>
<td>BADM-103 Introduction to Business</td>
<td>3 units</td>
</tr>
<tr>
<td>or BADM-103H Honors Introduction to Business</td>
<td>3 units</td>
</tr>
<tr>
<td>BADM-201 Legal Environment of Business</td>
<td>3 units</td>
</tr>
<tr>
<td>MGT-103 Introduction to Management</td>
<td>3 units</td>
</tr>
<tr>
<td>or MGT-103H Honors Introduction to Management</td>
<td>3 units</td>
</tr>
<tr>
<td>MGT-205 Principles of Marketing Management</td>
<td>3 units</td>
</tr>
</tbody>
</table>

Recommended Courses (Take 3 units from this list)

| CSIS-101 Introduction to Computers and Data Processing | 3 units |
| or ECON-201 Principles of Macroeconomics | 3 units |
| or ECON-201H Honors Principles of Macroeconomics | 3 units |
| or ENGR-108/MGT-108 Principles of Microeconomics | 3 units |
| or MGT-103H Honors Introduction to Management | 3 units |
| or MGT-132 Labor Management Relations | 3 units |
| or MGT-138 Personnel Management | 3 units |
| or BADM-150 Small Business Entrepreneurship | 3 units |
| or BADM-157 Principles of Salesmanship | 3 units |
| or BADM-170 Introduction to International Business | 3 units |
| or BADM-210 Principles of Advertising | 3 units |
| or ECON-202 Principles of Microeconomics | 3 units |
| or ECON-202H Honors Principles of Microeconomics | 3 units |
| or ENGR-108/MGT-108 Principles of Microeconomics | 3 units |
| or MGT-132 Labor Management Relations | 3 units |
| or MGT-138 Personnel Management | 3 units |

Elective Courses (Take 6 units from this list)

| ACCT-125 Managerial Accounting - Principles of Accounting II | 3 units |
| or ACCT-125H Honors Managerial Accounting - Principles of Accounting II | 3 units |
| ACCT-126 Beginning Computer Accounting | 3 units |
| ACCT-127 Federal and California Income Tax Accounting | 4 units |
| BADM-104 Business Communications | 3 units |
| or BADM-104H Honors Business Communications | 3 units |
| BADM-150 Small Business Entrepreneurship | 3 units |
| BADM-157 Principles of Salesmanship | 3 units |
| BADM-170 Introduction to International Business | 3 units |
| BADM-210 Principles of Advertising | 3 units |
| ECON-202 Principles of Microeconomics | 3 units |
| or ECON-202H Honors Principles of Microeconomics | 3 units |
| ENGR-108/MGT-108 Organizational Behavior | 3 units |
| MGT-132 Labor Management Relations | 3 units |
| MGT-133 Productivity Management | 3 units |
| MGT-138 Personnel Management | 3 units |

Certificate in Small Business Operations (24 units)

<table>
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</tr>
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<tr>
<td>or ACCT-124H Honors Financial Accounting - Principles of Accounting I</td>
<td>3 units</td>
</tr>
<tr>
<td>BADM-150 Small Business Entrepreneurship</td>
<td>3 units</td>
</tr>
<tr>
<td>BADM-201 Legal Environment of Business</td>
<td>3 units</td>
</tr>
<tr>
<td>ECON-201 Principles of Microeconomics</td>
<td>3 units</td>
</tr>
<tr>
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<td>3 units</td>
</tr>
<tr>
<td>MGT-205 Principles of Marketing Management</td>
<td>3 units</td>
</tr>
</tbody>
</table>

Elective Courses (9 units)

| ACCT-125 Managerial Accounting - Principles of Accounting II | 3 units |
| or ACCT-125H Honors Managerial Accounting - Principles of Accounting II | 3 units |
| ACCT-126 Beginning Computer Accounting | 3 units |
| ACCT-127 Federal and California Income Tax Accounting | 3 units |
| BADM-104 Business Communications | 4 units |
| or BADM-104H Honors Business Communications | 3 units |
| BADM-150 Small Business Entrepreneurship | 3 units |
| BADM-157 Principles of Salesmanship | 3 units |
| BADM-170 Introduction to International Business | 3 units |
| BADM-210 Principles of Advertising | 3 units |
| ECON-202 Principles of Microeconomics | 3 units |
| or ECON-202H Honors Principles of Microeconomics | 3 units |
| MGT-103 Principles of Microeconomics | 3 units |
| or MGT-103H Honors Principles of Microeconomics | 3 units |
| MGT-132 Labor Management Relations | 3 units |
| MGT-133 Productivity Management | 3 units |
| MGT-138 Personnel Management | 3 units |
| or ENGR-108/MGT-108 Principles of Microeconomics | 3 units |
| or MGT-132 Labor Management Relations | 3 units |
| or MGT-133 Productivity Management | 3 units |
| or MGT-138 Personnel Management | 3 units |

CERTIFICATES

Competency in English and math is required prior to completing either certificate. This may be accomplished by testing or completion of ENGL-098 (English Fundamentals) and MATH-090 (Elementary Algebra).

Certificate in Business Administration (24 units)

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<td>or BADM-103H Honors Introduction to Business</td>
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</tr>
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</tr>
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<td>3 units</td>
</tr>
<tr>
<td>MGT-205 Principles of Marketing Management</td>
<td>3 units</td>
</tr>
</tbody>
</table>

Recommended Courses (Take 3 units from this list)

| CSIS-101 Introduction to Computers and Data Processing | 3 units |
| or ECON-201 Principles of Macroeconomics | 3 units |
| or ECON-201H Honors Principles of Macroeconomics | 3 units |
| or ENGR-108/MGT-108 Principles of Microeconomics | 3 units |
| or MGT-103H Honors Principles of Microeconomics | 3 units |
| or MGT-132 Labor Management Relations | 3 units |
| or MGT-138 Personnel Management | 3 units |

Certificate in Small Business Operations (24 units)

<table>
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<tr>
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<tr>
<td>ACCT-124 Financial Accounting - Principles of Accounting I</td>
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<td>BADM-150 Small Business Entrepreneurship</td>
<td>3 units</td>
</tr>
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<td>BADM-201 Legal Environment of Business</td>
<td>3 units</td>
</tr>
<tr>
<td>ECON-201 Principles of Microeconomics</td>
<td>3 units</td>
</tr>
<tr>
<td>or ECON-201H Honors Principles of Microeconomics</td>
<td>3 units</td>
</tr>
<tr>
<td>MGT-205 Principles of Marketing Management</td>
<td>3 units</td>
</tr>
</tbody>
</table>

Elective Courses (9 units)

| ACCT-125 Managerial Accounting - Principles of Accounting II | 3 units |
| or ACCT-125H Honors Managerial Accounting - Principles of Accounting II | 3 units |
| ACCT-126 Beginning Computer Accounting | 3 units |
| ACCT-127 Federal and California Income Tax Accounting | 3 units |
| BADM-104 Business Communications | 4 units |
| or BADM-104H Honors Business Communications | 3 units |
| BADM-150 Small Business Entrepreneurship | 3 units |
| BADM-157 Principles of Salesmanship | 3 units |
| BADM-170 Introduction to International Business | 3 units |
| BADM-210 Principles of Advertising | 3 units |
| ECON-202 Principles of Microeconomics | 3 units |
| or ECON-202H Honors Principles of Microeconomics | 3 units |
| MGT-103 Principles of Microeconomics | 3 units |
| or MGT-103H Honors Principles of Microeconomics | 3 units |
| MGT-132 Labor Management Relations | 3 units |
| MGT-133 Productivity Management | 3 units |
| MGT-138 Personnel Management | 3 units |
| or ENGR-108/MGT-108 Principles of Microeconomics | 3 units |
| or MGT-132 Labor Management Relations | 3 units |
| or MGT-133 Productivity Management | 3 units |
| or MGT-138 Personnel Management | 3 units |
### Certificate in Business, Clerical (25 units)

**Required Courses (16 units)**
- BADM-085 Business Math 3 units
- BADM-104 Business Communications 3 units
- or
- BADM-104H Honors Business Communications 3 units
- CAPP-127 Using Microsoft Word 3 units
- OTEC-131 Filing Techniques 1 unit
- OTEC-144 Keyboarding and Document Formatting 3 units
- OTEC-178 Office Procedures and Systems 3 units

**Elective Courses (9 units)**
- ACCT-076 Bookkeeping Part 1 - Accounting Theory 3 units
- ACCT-077 Bookkeeping Part 2 - QuickBooks Pro 3 units
- CAPP-120 Using Microsoft Office – Level 1 3 units
- CAPP-122 Using Microsoft Excel 3 units
- CAPP-123 Using Microsoft Access – Level 1 3 units
- CAPP-124 Using Microsoft PowerPoint 3 units

**Certificate in Business, Office Administration Technician (24 units)**

**Required Courses (24 units)**
- BADM-085 Business Math 3 units
- BADM-103 Introduction to Business 3 units
- or
- BADM-103H Honors Introduction to Business 3 units
- BADM-104 Business Communications 3 units
- or
- BADM-104H Honors Business Communications 3 units
- CAPP-122 Using Microsoft Excel 3 units
- CAPP-127 Using Microsoft Word 3 units
- CSIS-101 Introduction to Computers and Data Processing 3 units
- OTEC-178 Office Procedures and Systems 3 units
- OTEC-180 Research Analysis and Presentation 3 units

**Certificate in Microsoft Applications Specialist (16 units)**

**Required Courses (18 units)**
- CAPP-122 Using Microsoft Excel 3 units
- CAPP-123 Using Microsoft Access – Level 1 3 units
- CAPP-124 Using Microsoft PowerPoint 3 units
- CAPP-127 Using Microsoft Word 3 units
- CAPP-131 Using Microsoft Outlook 1 unit
- OTEC-144 Keyboarding and Document Formatting 3 units
- OTEC-146 Keyboarding Speed and Accuracy 2 units

**Certificate in Management/Supervision (24 units)**

**Required Courses (15 units)**
- BADM-103 Introduction to Business 3 units
- or
- BADM-103H Honors Introduction to Business 3 units
- BADM-201 Legal Environment of Business 3 units
- ECON-201 Principles of Macroeconomics 3 units
- or
- ECON-201H Honors Principles of Macroeconomics 3 units
- MGT-103 Introduction to Management 3 units
- or
- MGT-103H Honors Introduction to Management 3 units

**Recommended Elective Courses (3 units from this list)**
- MGT-108/ENGR-108 Organizational Behavior 3 units
- ACCT-124 Financial Accounting - Principles of Accounting I 3 units
- or
- ACCT-124H Honors Financial Accounting - Principles of Accounting I 3 units
- CSIS-101 Introduction to Computers and Data Processing 3 units

**Other Elective Courses (6 units from this list)**
- ACCT-125 Managerial Accounting - Principles of Accounting II 3 units
- or
- ACCT-125H Honors Managerial Accounting - Principles of Accounting II 3 units
- BADM-150 Small Business Entrepreneurship 3 units
- BADM-157 Principles of Salesmanship 3 units
- BADM-170 Introduction to International Business 3 units
- ECON-202 Principles of Microeconomics 3 units
- or
- ECON-202H Honors Principles of Microeconomics 3 units
- MGT-132 Labor Management Relations 3 units
- MGT-133 Productivity Management 3 units
- MGT-138 Personnel Management 3 units
- MGT-205 Principles of Marketing Management 3 units
- MGT-299 Special Projects: Management 1-3 units

**Certificate in Real Estate (24 units)**

**Required Courses (12 units)**
- RE-140 Real Estate Principles 3 units
- RE-141 Real Estate Practice 3 units
- RE-142 Legal Aspects of Real Estate 3 units
- RE-143 Real Estate Finance 3 units

**Elective Courses (12 units)**
- ACCT-124 Financial Accounting - Principles of Accounting I 3 units
- or
- ACCT-124H Honors Financial Accounting - Principles of Accounting I 3 units
- BADM-201 Legal Environment of Business 3 units
- RE-144 Basic Appraisal Principles and Procedures 3.5 units
Finance and Business

DEGREES

Business Administration Major (18 units)
The 18 units in the major plus all MSJC General Education Option A requirements for a total of 60 units is required to earn a non-transfer Associate in Science degree in Business Administration.

Required Courses (6 units)
- ACCT-124 Financial Accounting - Principles of Accounting I [3 units]
- ACCT-124H Honors Financial Accounting - Principles of Accounting I [3 units]
- ECON-201 Principles of Macroeconomics [3 units]
- ECON-201H Honors Principles of Macroeconomics [3 units]

Additional Required Courses (9 units from this list)
- BADM-103 Introduction to Business [3 units]
- BADM-103H Honors Introduction to Business [3 units]
- BADM-201 Legal Environment of Business [3 units]
- MGT-103 Introduction to Management [3 units]
- MGT-103H Honors Introduction to Management [3 units]
- MGT-205 Principles of Marketing Management [3 units]

Electives (3 units from this list)
- ACCT-125 Managerial Accounting - Principles of Accounting II [3 units]
- ACCT-125H Honors Managerial Accounting - Principles of Accounting II [3 units]
- ACCT-127 Federal and California Income Tax Accounting [4 units]
- BADM-104 Business Communications [3 units]
- BADM-104H Honors Business Communications [3 units]
- BADM-150 Small Business Entrepreneurship [3 units]
- ECON-202 Principles of Microeconomics [3 units]
- ECON-202H Honors Principles of Microeconomics [3 units]
- FIN-200 Financial Management [3 units]

A.S.-T in Business Administration for Transfer (25-26 units)
An Associate in Science degree in Business Administration for Transfer will fulfill the requirements for students to transfer to a four-year college or university as a Business Administration major.

The major required for an A.S.-T in Business Administration for Transfer may be met by:

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.
- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtainment of a minimum grade point average of 2.0.

Required Courses (15 units)
- ACCT-124 Financial Accounting - Principles of Accounting I [3 units]
- ACCT-124H Honors Financial Accounting - Principles of Accounting I [3 units]
- ACCT-125 Managerial Accounting - Principles of Accounting II [3 units]
- ACCT-125H Honors Managerial Accounting - Principles of Accounting II [3 units]
- ECON-201 Principles of Macroeconomics [3 units]
- ECON-201H Honors Principles of Macroeconomics [3 units]
- ECON-202 Principles of Microeconomics [3 units]
- ECON-202H Honors Principles of Microeconomics [3 units]
- BADM-201 Legal Environment of Business [3 units]

Additional Required Courses
- List A (4 units from this list)
  - MATH-135 Calculus for Social Science and Business [4 units]
  - MATH-140 Introduction to Statistics [4 units]

- List B (6-7 units from this list)

  Any course from List A not already used above can be selected.
  - MATH-135 Calculus for Social Science and Business [4 units]
  - MATH-140 Introduction to Statistics [4 units]
  - CSIS-101 Introduction to Computers and Data Processing [3 units]
  - BADM-103 Introduction to Business [3 units]
  - BADM-103H Honors Introduction to Business [3 units]

Units for Major 25-26
CSU General Education or IGETC Pattern 34-35
Possible double counting 10
Transferable Electives (as needed to reach 60 CSU transferable units)
Total Units for A.S.-T Degree 60 units

This Associate in Science in Business Administration for Transfer degree is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. A student completing this degree is guaranteed admission to the CSU system, but not a particular campus or major. Students should meet with a counselor to develop an educational plan and receive university admission and transfer requirements.

Continued on page 27
A.S. in Office Administration (18 units)
The 18 units in the major plus all MSJC General Education Option A requirements for a total of 60 units is required to earn an Associate in Science degree in Office Administration.

Required Courses (12 units)
- BADM-104 Business Communications 3 units
- or
- BADM-104H Honors Business Communications 3 units
- CAPP-127 Using Microsoft Word 3 units
- OTEC-178 Office Procedures and Systems 3 units
- OTEC-180 Research Analysis and Presentation 3 units

Elective Courses (6 units)
- ACCT-076 Bookkeeping Part 1 - Accounting Theory 3 units
- ACCT-077 Bookkeeping Part 2 - QuickBooks Pro 3 units
- CAPP-120 Using Microsoft Office – Level 1 3 units
- CAPP-122 Using Microsoft Excel 3 units
- CAPP-123 Using Microsoft Access – Level 1 3 units
- CAPP-124 Using Microsoft PowerPoint 3 units
- CAPP-131 Using Microsoft Outlook 1 unit
- CAPP-140 Using Microsoft Office – Level 2 3 units
- CSIS-103 Introduction to the Internet 3 units
- MGT-103 Introduction to Management 3 units
- or
- MGT-103H Honors Introduction to Management 3 units

A.S. in Management/Supervision
An Associate in Science (AS) degree with a major in Management/Supervision is available to students completing the certificate requirements in Management/Supervision, and completing all other MSJC General Education Option A requirements. The course requirements for the Certificate in Management/Supervision are listed under Certificates heading.

A.S. in Real Estate
An Associate in Science degree in Real Estate is available to students completing the 24 unit certificate in Real Estate and completing all other MSJC General Education Option A requirements for a total of 60 units. See a counselor for recommended vocational and academic courses. The course requirements for the certificate in Real Estate are listed under the Certificates heading.

EMPLOYMENT CONCENTRATIONS
Certificate classes must be completed within a two-year period to be valid. Certificate is valid for two years after issuance. Students must complete an employment concentration certificate application form (available in the Business Department office) after completion of all certificate classes in order to receive certificate.

Business Administration
Project Management Concentration (9 units)
- CAPP-135 Using Microsoft Project 3 units
- MGT-103 Introduction to Management 3 units
- or
- MGT-103H Honors Introduction to Management 3 units
- MGT-133 Productivity Management 3 units

Real Estate
Real Estate Appraisal (9 units)
- RE-144 Basic Appraisal Principles and Procedures 3.5 units
- RE-155 Residential Real Estate Appraisal 3.5 units
- RE-156 Residential Appraisal Report Writing 1 unit

CAREER OPPORTUNITIES
- Account Manager
- Administrative Assistant
- Bank Teller
- Chief Operating Office
- Construction Manager
- Data Entry Operator
- Executive Secretary
- Management Analyst
- Office Manager
- Purchasing Manager
- Real Estate Appraiser
- Real Estate Salesperson
- Small Business Managers
- Tax Preparer
Health, Science and Medical Technology: Programs and courses available for this industry sector at Mt. San Jacinto College are provided by our Nursing and Allied Health Unit. These programs include:

Alcohol and Drug Studies
Allied Health
Certified Nursing Assistant (CNA)
Emergency Medical Technician (EMT)

Diagnostic Medical Sonography (DMS)
Medical Assistant
Nursing: Registered Nursing

Alcohol/Drug Studies: The Alcohol/Drug studies non-transfer certificate and degree program is designed to prepare people to serve as professionals in the expanding profession of counseling to those who individuals who suffer from addictions from alcohol or other drugs.

The MSJC Alcohol/Drug program is a certificate program consisting of 37.5 units, drawing from a course list which provides a thorough grounding in medical and social origins of addiction. The successful student will be well prepared for the qualifying examination offered by California Board for Alcohol and Drug Abuse Counselors (CBADAC), a statewide certification organization.

ALLIED HEALTH

CNA
This non-transfer program introduces students to the basic information and nursing skills needed to pass the state exam required for Nurse Aide Certification.

EMT
This non-transfer program provides the knowledge and skills required to care for the ill or injured person(s) in the pre-hospital care setting. It is also a first step for those individuals who would prefer to work in an emergency room as an emergency room technician. Students are taught how to perform a complete patient assessment and provide multiple life saving interventions based on their assessment of the ill or injured patient. This course is primarily taken by individuals who intend to work in the field of prehospital emergency medicine and with critically ill or injured patients.

This course can also be taken by individuals currently working in a similar medical employment within the medical field and there may be potential for salary and/or career advancement. Individuals who wish to take this course must have a criminal free background due to licensing restrictions imposed by national, state and local licensing agencies. The potential student must be 18 years of age. Hospital clinical and field internship hours are required. This course is a positive attendance course due to national, state and local mandates.

Diagnostic Medical Sonography: The Diagnostic Medical Sonography Program is a non-transfer program. This degree program provides an opportunity for student to be educated and trained the healthcare career of Diagnostic Medical Sonographer. The objective of the program is to graduate students who are competent and confident in providing excellent patient care in the field of sonography.

The goal of our DMS program is to graduate students who demonstrate a high competency in anatomy and pathology, as seen on the ultrasound exam and the skills necessary to perform the ultrasound exam. Students will be evaluated on didactic learning in Ultrasound Physics and Instrumentation, hands on scanning skills, communication skills, patient care and critical thinking ability.

Students will practice ultrasound scanning skills with ultrasound equipment in the campus lab. Those skills will be carried out and enhanced in an affiliated medical center by training on the job, scanning patients.

The didactic education will prepare the student for taking the American Registry of Diagnostic Medical Sonography Physics and Instrumentation examination. After graduation the student will be required to work an additional year in the sonography field before taking the ARDMS specialty examination.

With completion of Associate in Science required course work the student will receive an Associate in Science in Diagnostic Medical Sonography.

Nursing: Registered Nursing: The Associate in Science degree in Registered Nursing provides courses that are transferable to four year colleges and universities. The program is accredited by the California State Board of Registered Nursing. Graduates are eligible to take the National Council Licensure Examination (NCLEX). The program pass rates are consistently above the state and national averages.

The Associate in Science degree in Nursing is a 78-unit degree program which requires four semesters (40 units in nursing) of study beyond completion of prerequisite courses. In addition, Mt San Jacinto College offers a LVN-RN articulation option for completion of the Associate in Science degree in Nursing or a non-degree 30-unit option.
**DEGREES**

**Alcohol/Drug Studies**

In addition to the 37.5 units of the certificate program, students must complete all MSJC General Education Option A requirements for the Associate in Science degree in Alcohol/Drug Studies.

**Diagnostic Medical Sonography**

The 60 units list below plus all MSJC General Education Option A requirements is required to earn an Associate in Science degree in Diagnostic Medical Sonography. See counselor for recommended vocational and academic courses.

**Program Prerequisites: 20 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT-101</td>
<td>5</td>
</tr>
<tr>
<td>ANAT-102</td>
<td>5</td>
</tr>
<tr>
<td>COMM-103</td>
<td>3</td>
</tr>
<tr>
<td>COMM-103H</td>
<td>3</td>
</tr>
<tr>
<td>MATH-090</td>
<td>4</td>
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<tr>
<td>PHY-100</td>
<td>3</td>
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</table>

**DMS Program Courses (60 units)**

<table>
<thead>
<tr>
<th>Semester One: 13 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS-095</td>
</tr>
<tr>
<td>DMS-100</td>
</tr>
<tr>
<td>DMS-101</td>
</tr>
<tr>
<td>DMS-103</td>
</tr>
<tr>
<td>DMS-125</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Semester Two: 13.5 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS-102</td>
</tr>
<tr>
<td>DMS-104</td>
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<td>DMS-110</td>
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<tr>
<td>DMS-120</td>
</tr>
<tr>
<td>DMS-122</td>
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<td>DMS-135</td>
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<table>
<thead>
<tr>
<th>Summer: 5 units</th>
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<tbody>
<tr>
<td>DMS-114</td>
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<table>
<thead>
<tr>
<th>Semester Three: 16.5 units</th>
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</thead>
<tbody>
<tr>
<td>DMS-124</td>
</tr>
<tr>
<td>DMS-130</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Semester Four: 12 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS-132</td>
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<tr>
<td>DMS-140</td>
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</table>

**Semester Four: 12 units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>DMS-134</td>
<td>2 units</td>
</tr>
<tr>
<td>DMS-136</td>
<td>10 units</td>
</tr>
</tbody>
</table>

The sonography courses must be taken in a specific sequence; students must attain a minimum grade of “C” and a GPA of 2.5 or above in all required courses in order to obtain the degree.

**Nursing: Registered Nursing**

**A.S. in Nursing (78 units)**

Minimum cumulative college level GPA of 2.5 on 4.0 scale with a grade of “C” or better in the following courses.

**Admission Requirements:**

Pre-Nursing Information Workshop Certificate

High School graduate (or equivalency)

**Prerequisites: 24 units**

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>ANAT-102</td>
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<tr>
<td>BIOL-125</td>
<td>5 units</td>
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<tr>
<td>BIOL-125H</td>
<td>5 units</td>
</tr>
<tr>
<td>ENGL-101</td>
<td>4 units</td>
</tr>
<tr>
<td>ENGL-101H</td>
<td>4 units</td>
</tr>
<tr>
<td>MATH-096</td>
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**Semester One: 12 units**

<table>
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<td>NURS-194</td>
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<td>NURS-212</td>
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<tr>
<td>NURS-214</td>
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**Semester Two: 12.5 units**

<table>
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<tr>
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<tbody>
<tr>
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<tr>
<td>NURS-222</td>
<td>3.5 units</td>
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<tr>
<td>NURS-224</td>
<td>5 units</td>
</tr>
<tr>
<td>NURS-226</td>
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**Semester Three: 10.5 units**

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</tr>
<tr>
<td>NURS-234</td>
<td>5 units</td>
</tr>
<tr>
<td>NURS-236</td>
<td>3 units</td>
</tr>
<tr>
<td>NURS-238</td>
<td>2 units</td>
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**Semester Four: 7 units**

<table>
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</thead>
<tbody>
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<td>NURS-074</td>
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</tr>
<tr>
<td>NURS-244</td>
<td>4 units</td>
</tr>
<tr>
<td>NURS-248</td>
<td>2.5 units</td>
</tr>
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</table>

**Additional Associate Degree and Requirements: (12 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYC-101</td>
<td>3 units</td>
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<tr>
<td>PSYC-101H</td>
<td>3 units</td>
</tr>
<tr>
<td>PS-101</td>
<td>3 units</td>
</tr>
<tr>
<td>PS-101H</td>
<td>3 units</td>
</tr>
<tr>
<td>COMM-100</td>
<td>3 units</td>
</tr>
</tbody>
</table>

Continued on page 30

Health Science and Medical Technology
Admission Requirements:

3rd Semester

Prerequisites:

Required Prerequisites

- Many courses will satisfy both requirements: (3 units)

(See the MSJC General Education Breadth Pattern)

Note: Graduates from the A.S. in Nursing Program meet the requirement of Physical Education and Healthful Living.

LVN to RN Transition [Degree Candidate]

Students choosing this option are Licensed Vocational Nurses (LVN’s) or Licensed Practical Nurses (LPN’s) who would be eligible to enter the third semester of the Associate in Science in Nursing program after completing the recommended LVN to RN Transition courses. Students can opt to meet all of the requirements for the Associate in Science in Nursing degree (degree candidate) or to satisfy the course requirements for only those courses that are required by the California State Board of Registered Nursing as content required for RN licensure (non-degree candidate). Students can apply for advanced placement if he/she has completed courses at another college. Students will be admitted once a year in the fall semester.

LVN to RN Transition [Degree Candidate]

Admission Requirements:

30.5 units of course work

Prerequisites:

(For admission into the third semester of the program)

Minimum cumulative college level GPA of 2.5 on 4.0 scale with a grade of “C” or better in the following courses:

Required Prerequisites (30.5 units)

- ANAT-101 Human Anatomy & Physiology I 5 units
- ANAT-102 Human Anatomy & Physiology II 5 units
- BIOL-125 Microbiology 5 units
- or BIOL-125H Honors Microbiology 5 units
- ENGL-101 Freshman Composition 4 units
- or ENGL-101H Honors Freshman Composition 4 units
- MATH-096 Intermediate Algebra 5 units
- NURS-072 Basic Medical Surgical Nursing Skills Lab 0.5 units
- NURS-232 Role Transition 3 units
- PSYC-101 Introduction to Psychology 3 units
- or PSYC-101H Honors Introduction to Psychology 3 units

LVN, licensed in California or proof of LVN program graduate awaiting licensure.

3rd Semester (10.5 units):

- NURS-073 Intermediate Nursing Skills Lab 0.5 units
- NURS-234 Intermediate Medical-Surgical Nursing III 5 units
- NURS-236 Mental Health Nursing 3 units
- NURS-238 Gerontology and Community Nursing 2 units

Note: Graduates from the A.S. in Nursing Program meet the requirement of Physical Education and Healthful Living.

LVN to RN [30 Unit Non-Degree Option]

Students choosing this option are Licensed Vocational Nurses (LVN’s) or Licensed Practical Nurses (LPN’s) who would be eligible to enter the third semester of the program after the LVN to RN Transition course (NURS-232). Students can opt to meet all of the requirements of the Associate Degree in Science in Nursing degree (degree candidate) or to satisfy the course requirements for only those courses that are required by the California State Board of Registered Nursing as content required for RN licensure (non-degree candidate). Students can apply for advanced placement into the LVN-RN option if he/she has completed courses at another college. This student will be required to satisfy 30-semester units in nursing and physical sciences in order to qualify them to apply for RN licensure in California. This option is recognized only in the state of California. Students will be admitted once a year in the fall semester.

Admission Requirements:

High School graduate (or equivalent)

Prerequisites:

Minimum cumulative college level GPA of 2.5 on 4.0 scale with a minimum grade of “C” in the following courses:

- ANAT-104 Survey of Human Anatomy and Physiology 5 units
- BIOL-125 Microbiology 5 units
- or BIOL-125H Honors Microbiology 5 units
- NURS-072 Basic Medical Surgical Nursing Skills Lab 5 units
- NURS-232 Role Transition 3 units

LVN, licensed in California or proof of awaiting licensure.

Note: Special Projects (299’s) can be arranged for individuals who have exceeded the 7 year recency requirements for ANAT-101, ANAT-102, and BIOL-125.

4th Semester (7 units):

- NURS-074 Advanced Nursing Skills Lab 0.5 units
- NURS-244 Advanced Medical-Surgical Nursing IV 4 units
- NURS-248 Preceptorship 2.5 units

Additional Associate Degree and Requirements: (9 units)

- Political Science 101 (B1) 3 units
- Communication 100 or 103 (D2) 3 units
- Humanities/Multicultural Gender Studies (Any course from Area C (Humanities) or Area F (Multicultural Gender Studies)

Many courses will satisfy both requirements: 3 units

(See the MSJC General Education Breadth Pattern)

Note: Graduates from the A.S. in Nursing Program meet the requirement of Physical Education and Healthful Living.
### Nursing Courses

**3rd Semester:**
- NURS-234 Intermediate Medical-Surgical Nursing III 5 units
- NURS-236 Mental Health Nursing 3 units
- NURS-238 Gerontology and Community Nursing 2 units

**4th Semester:**
- NURS-244 Advanced Medical-Surgical Nursing IV 4 units
- NURS-248 Preceptorship 2.5 units

### CERTIFICATES

**Certificate in Alcohol/Drug Studies (37.5 units)**

In addition to the course work below, certificate recipients must demonstrate English proficiency by passing ENGL-098 or ENGL-092 or ESL-098W or higher or achieve an equivalent assessment score and pass MATH-051 or higher or achieve an equivalent assessment score.

**Required Courses (37.5 units)**
- ADS-101 Foundations of Alcohol and Drug Studies 2.5 units
- ADS-102 Pharmacology and Biomedical Aspects of Alcohol and Other Drugs 2.5 units
- ADS-103 Law and Ethics 2.5 units
- ADS-104 Case Management 3 units
- ADS-105 Domestic Violence Prevention 2 units
- ADS-110 Introduction to Counseling 3 units
- ADS-115 Individual, Family and Group Counseling 3 units
- ADS-120 Personal and Professional Development 3 units
- ADS-149 Occupational Internship: Alcohol and Drug Studies 1 unit
- ADS-150 Supervised Field Work Practicum 3 units
- HS-121 Fundamentals of Healthful Living 3 units
- PSYC-101 Introduction to Psychology 3 units
- or
- ADS-108H Abnormal Psychology 3 units
- PSYC-101H Honors Introduction to Psychology 3 units
- or
- PSYC-108H Honors Abnormal Psychology 3 units

**EMployment Concentrations* (13-16 units)

- ADS-137 Co-Occurring Disorders 3 units
- ADS-149 Occupational Internship: Alcohol and Drug Studies 1-4 units
- ADS-150 Supervised Field Work Practicum 3 units
- or
- PSYC-101H Honors Introduction to Psychology 3 units
- ADS-120 Emergency Medical Technician (Refresher) 2.5 units

**Allied Health**

**Certified Nursing Assistant/Home Health Aide (7.5 units)**
- NURS-085 Certified Nursing Assistant and Home Health Aide 7.5 units

**Emergency Medical Technician (EMT) (13.5 units)**
- EMS-120 Emergency Medical Technician 6 units
- AH-120B Advanced Emergency Medical Technician 5 units
- EMS-121 Emergency Medical Technician (Refresher) 2.5 units

**Emergency Medical Technician (EMT) Advanced (8 units)**
- EMS-120B Emergency Medical Technician Support Course 5 units
- EMS-127 Infant to Adult Basic and Advanced Life Support 3 units

### Employment Opportunities

- Alcohol/Drug Intern
- Ambulance Service
- Diagnostic Medical Sonographer
- Emergency Room Technician
- Fire Service
- Hospital Attendant
- Nurse’s Aide
- Nursing Assistant
- Registered Nurse
The Hospitality, Tourism, and Recreation sector provides students with the academic and technical preparation to pursue high-demand and high-skill careers in these related and growing industries. The sector encompasses three distinct, yet interrelated, career pathways: Food Science, Dietetics, and Nutrition; Food Service and Hospitality; and Hospitality, Tourism, and Recreation. Nearly 900,000 jobs are directly supported by the travel industry, making tourism the state’s third largest employer; and the industry is expected to expand by more than 2% per year through 2014. Travel spending in 2012 generated $2.5 billion in local taxes and $4.1 billion in state taxes. The foundation standards include core, comprehensive technical knowledge and skills that prepare students for learning in the pathways. The knowledge and skills are acquired within a sequential, standards-based pathway program that integrates hands-on and project- and work-based instruction as well as internship, community classroom, work experience, apprenticeship, and cooperative career technical education. Standards included in the Hospitality, Tourism, and Recreation sector are designed to prepare students for technical training, postsecondary education, and entry to a career.

Viticulture, Enology and Winery Technology:
The Viticulture, Enology and Winery Technology is a program that introduces the student to a variety of disciplines included in the winemaking industry. From basic winemaking (enology), grape cultivation (viticulture), event organization and service (hospitality) to marketing and selling of wine (business principles). This program seeks to inform the student at an introductory level to the many fields encompassing the winery industry.

Students can put their knowledge and skills to work in the local Temecula Valley Wine Country which is home to 35 wineries that offer hundreds of award-winning wines. Whether you are looking to enjoy a quick day-trip or stay for a few days, Temecula Valley Wine Country will be sure to meet your expectations. You can wine taste, tour a vineyard, stay at a bed and breakfast or enjoy live entertainment such as a jazz concert. Individuals who are social and enjoy customer service will find many opportunities for employment in the Valley.

LEARNING OUTCOMES

- Define and understand viticulture terminology and identify morphology
- Identify and understand the difference between grape species including Vitis vinifera and hybrids
- Describe modern vine training and trellis systems and how they impact vine growth and management
- Understand the causes of poor fruit set and berry development
- Define vine balance and understand the link between reproductive and vegetative potential of the vine on end fruit quality
- Identify site characteristics needed for successful commercial winegrape production based on vine physiology
- Interpret information learned in lecture for use in critical thinking during discussion and journal article review

EMPLOYMENT CONCENTRATION

Viticulture, Enology and Winery Technology (12 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEW-100</td>
<td>Introduction to Viticulture</td>
<td>3</td>
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<tr>
<td>VEW-102</td>
<td>Introduction to Enology</td>
<td>3</td>
</tr>
<tr>
<td>VEW-106</td>
<td>Hospitality in the Winemaking Industry</td>
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</tr>
<tr>
<td>VEW-108</td>
<td>Introduction to Winemaking Business Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

CAREER OPPORTUNITIES

- Formal Waiter/Waitress
- Head Waiter/Waitress
- Host/Hostess
- Restaurant Host/Hostess
- Wine Sommelier
- Wine Steward
- Winery Production Worker
Technology and the growing complexity of businesses have expanded the need for employees who can analyze, design, and manage information. Skills for evaluating data, the ability to work with people, and clear communication are companion components for careers in information technology systems. Employment opportunities for technically and professionally trained persons are outstanding in this emerging career path. Computers and information technology touch almost every aspect of our lives. It can help us from everything to driving a car, communicating with loved ones and diagnosing diseases. To keep all of these systems running smoothly, large, highly-skilled workforces is necessary. Unlike many other industries, the information technology sector was not significantly affected by the recession. In fact, the high demand for services provided by workers in this industry has created numerous fast-growing and high paying IT jobs. Projected job growth in this industry is expected to be much faster than average compared with other industry sectors.

**Computer Information Systems:** Computer Information Systems are the tools that facilitate the effective and efficient transformation of data into information. MSJC’s CIS program is designed to provide students with the knowledge and skills required to gain entry level employment as computer programmers, and/or software/system administration technicians. Our coursework is designed to provide students with the knowledge and hands-on experience in microcomputer applications, programming, operating systems, and networking necessary to be competitive in the work force. The non-transfer program in Computer Information Systems offers students an opportunity to earn a CIS Associate degree, State Approved Certificate, or locally approved Employment Concentration. The program offers students the choice of pursuing an Associate in Science (A.S.) degree in Computer Information Systems or certificate(s) with emphasis in General Track, Internet Authoring, Networking and Programming. The program also offers a transfer preparation. The courses offered will transfer to California State University/University of California systems, and other four year colleges.

These programs offer students a well-equipped technical environment for instruction and lab. CIS courses are taught in computer equipped classrooms, allowing hands-on experience in the use of industry-standard hardware, application software, operating systems, networking, and programming tools.

Individuals pursuing employment in this industry should have strong computer skills, be critical thinkers, active listeners, be able to write computer programs and have strong problem solving skills.

### DEGREES

#### Computer Science

The curriculum in Computer Science is designed to provide the transfer student the opportunity to earn an Associate in Science in Computer Science for Transfer degree. Computer Science is the study of computers, their design, and their uses for computation, data processing, and systems control, including design and development of computer hardware and software, and programming. Computer Science provides a foundation of knowledge for students with career objectives in a wide range of computing and computer-related professions.

The major required for an A.S.-T in Computer Science for Transfer may be met by:

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.
- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtainment of a minimum grade point average of 2.0.

### A.S.-T in Computer Science for Transfer (28 units)

**Required Core (28 units)**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSIS-113A</td>
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<tr>
<td>or</td>
<td></td>
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<tr>
<td>CSIS-113B</td>
<td>Java Programming – Level 1</td>
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<tr>
<td>CSIS-118B</td>
<td>Computer Organization &amp; Assembly Language</td>
<td>3 u</td>
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<tr>
<td>CSIS-211</td>
<td>Introduction to Data Structures and Algorithms</td>
<td>3 u</td>
</tr>
<tr>
<td>CSIS-213</td>
<td>Discrete Structures</td>
<td>3 u</td>
</tr>
<tr>
<td>MATH-211</td>
<td>Analytic Geometry and Calculus I</td>
<td>5 u</td>
</tr>
<tr>
<td>MATH-212</td>
<td>Analytic Geometry and Calculus II</td>
<td>5 u</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH-212H</td>
<td>Honors Analytic Geometry and Calculus II</td>
<td>5 u</td>
</tr>
<tr>
<td>PHY-201</td>
<td>Mechanics and Wave Motion</td>
<td>4 u</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY-202</td>
<td>Electricity and Magnetism</td>
<td>4 u</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY-202H</td>
<td>Honors Electricity and Magnetism</td>
<td>4 u</td>
</tr>
</tbody>
</table>

**Units for Major**

- 30

**CSU General Education or IGETC Pattern**

- 37

**Possible double counting**

- 7

**Transferable Electives (as needed to reach 60 CSU transferable units)**

**Total Units for A.S.-T Degree**

- 60

This Associate in Science in Computer Science for Transfer degree is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. A student completing this degree is guaranteed admission to the CSU system, but not a particular campus or major. Students should meet with a counselor to develop an educational plan and receive university admission and transfer requirements.

Continued on page 34
Information Technology

**CERTIFICATES**

**General Track (18 units)**

<table>
<thead>
<tr>
<th>Required Courses (15 units)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS-101 Introduction to Computers and Data Processing</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-103 Introduction to the Internet</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-201 System Analysis and Design</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-202 Networks and Data Communications</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-214 Principles of Database Management Systems</td>
<td>3 units</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses (3 units)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPP-122 Using Microsoft Excel</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CAPP-123 Using Microsoft Access – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CAPP-135 Using Microsoft Project</td>
<td>3 units</td>
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</table>

**Internet Authoring (18 units)**

<table>
<thead>
<tr>
<th>Required Courses (15 units)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS-103 Introduction to the Internet</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-115A SQL Programming – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-115B Web Development – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-116B Developing ASP.NET Web Applications</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>or CSIS-116D PHP Web Development</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-125A Web Development – Level 2</td>
<td>3 units</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses (3 units)</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS-104 Introduction to E-Commerce Infrastructure</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-113B Java Programming – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-113C C# Programming – Level 1</td>
<td>3 units</td>
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</tr>
<tr>
<td>CSIS-115B XML Design – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-116E Python Programming – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-117D Using Microsoft Expression Web – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-124A SQL Programming – Level 2</td>
<td>3 units</td>
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</table>

<table>
<thead>
<tr>
<th>Additional Elective Courses (6 units)</th>
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<tbody>
<tr>
<td>CSIS-111B Fundamentals of Computer Programming</td>
<td>3 units</td>
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</tr>
<tr>
<td>CSIS-113C C# Programming – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-114A SQL Programming – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-115A Web Development – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-116B Developing ASP.NET Web Applications</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>or CSIS-116D PHP Web Development</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-118A Embedded Systems Programming</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-118B Fundamentals of Computer Programming</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-123C C# Programming – Level 2</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-124A SQL Programming – Level 2</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-125A Web Development – Level 2</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-211 Introduction to Data Structures and Algorithms</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-214 Principles of Database Management Systems</td>
<td>3 units</td>
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</tbody>
</table>

**Networking (18 units)**

<table>
<thead>
<tr>
<th>Required Courses (9 units)</th>
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</thead>
<tbody>
<tr>
<td>CSIS-101 Introduction to Computers and Data Processing</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-201 System Analysis and Design</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-202 Networks and Data Communications</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>or NET-100 Network Fundamentals</td>
<td>3 units</td>
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<table>
<thead>
<tr>
<th>Select a Path:</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Cisco Path</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET-101 Routing Protocols and Concepts</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>NET-102 LAN Switching and Wireless</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>NET-103 Accessing the WAN</td>
<td>3 units</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Unix/Linux Path</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS-153 Using Unix-Based Operating Systems</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-223A Linux System Administration – Level 1</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-233A Linux System Administration – Level 2</td>
<td>3 units</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Windows Path</strong></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>CSIS-150 Using Microsoft Windows</td>
<td>3 units</td>
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</tr>
<tr>
<td>CSIS-151 Using the OS Command Line Interface</td>
<td>3 units</td>
<td></td>
</tr>
<tr>
<td>CSIS-154 Using and Configuring Windows Operating Systems</td>
<td>3 units</td>
<td></td>
</tr>
</tbody>
</table>

Continued on page 35
EMPLOYMENT CONCENTRATIONS

**Computer Forensics (16 units)**

- AJ-103 Criminal Evidence 3 units
- AJ-105 Public Safety Report Writing 3 units
- AJ-108 Criminal Investigation 3 units
- CSIS-181 Computer Hardware – Level 1 4 units
- CSIS-182 Computer Forensics 3 units

**Computer Hardware Specialist Certification (12 units)**

This program of study prepares students for A+ industry certification. In order to obtain that certificate students must take the CompTIA exams. Students can register for these exams at [http://www.2test.com](http://www.2test.com) and testing facilities are available on campus.

- CSIS-151 Using the OS Command Line Interface 3 units
- CSIS-154 Using and Configuring Windows Operating Systems 3 units
- CSIS-181 Computer Hardware – Level 1 4 units
- CSIS-183 Green Computing 2 units

**Data Analysis and Modeling (9 units)**

- CAPP-122 Using Microsoft Excel 3 units
- CAPP-123 Using Microsoft Access – Level 1 3 units
- CAPP-143 Using Microsoft Access – Level 2 3 units

**Internet Authoring Apprentice (9 units)**

**Note:** A cumulative GPA of 2.0 or higher is required for these courses.

- **Foundation Layer (3 units)**
  - CSIS-103 Introduction to the Internet 3 units
- **Presentation Layer (3 units)**
  - CSIS-115A Web Development – Level 1 3 units
  or
  - CSIS-117D Using Microsoft Expression Web – Level 1 3 units
- **Interactive Layer (3 units)**
  - CSIS-119A ActionScript Programming – Level 1 3 units
  or
  - CSIS-125A Web Development – Level 2 3 units

**Internet and Web Technologies (15 units)**

This program of study prepares students for Internet industry certification. In order to obtain that certificate students must take the CompTIA exams. Students can register for these exams at [http://www.2test.com](http://www.2test.com) and testing facilities are available on campus.

- CSIS-103 Introduction to the Internet 3 units
- CSIS-104 Introduction to E-Commerce Infrastructure 3 units
- CSIS-115A Web Development – Level 1 3 units
- CSIS-125A Web Development – Level 2 3 units
- CSIS-202 Networks and Data Communications 3 units

**CAREER OPPORTUNITIES**

- Computer Forensic Investigators
- Computer Repairer
- Computer Systems Analyst
- Help Desk Technician
- Network Control Technician
- Service Desk Hardware Support
- Software Engineer
- Technical Support Specialist
- Web Developer
- Web Publisher
The U.S. Bureau of Labor Statistics projects increases in employment nationwide through 2014 for careers pathways in the Public Services industry sector. The Public Services sector provides a foundation for secondary students in government, public administration, public safety, legal, and human services. Students engage in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and skill preparation in the industry.

The sector encompasses three career pathways: Human Services, Legal and Government Services, and Protective Services. These pathways emphasize processes, systems, and services related to serving the public's interest. The knowledge and skills are acquired within a sequential, standards-based pathway program that integrates classroom, laboratory, and project- and work-based instruction as well as internship, community classroom, work experience, and cooperative career technical education. Standards included in the Public Services sector are designed to prepare students for technical training, postsecondary education, and entry to a career.

Programs and courses are available at Mt. San Jacinto College include Administration of Justice, Fire Technology and Legal Assistant/Paralegal.

If you like to serve and protect people, a career path in the Public Services—Protective Services Industry Sector may be for you. Explore some great opportunities below! Individuals should have strong integrity and ethics, work well under stress and fund purpose in serving and helping others.

**Administration of Justice:** The scope of the program in administration of justice and corrections is designed to prepare the student for entry into careers in the criminal justice system. The program provides the student with a basic understanding of a variety of criminal justice positions at the federal, state, county and municipal level. The course of study involves an introduction to law enforcement, criminal law and evidence, juvenile and criminal procedures, public safety report writing, traffic control, community relations, criminal investigations, correctional courses, vice and narcotics control. These courses provide the student with a base of knowledge that will serve them well regardless of the criminal justice field they choose, i.e., police officer, deputy sheriff, corrections, FBI and civilian support.

For individuals currently working in the field there may be potential for salary and/or career advancement. Many agencies require entry level and current personnel to possess a certain level of education to be hired or to be eligible for promotion. The Certificate/Associate degree (AS) provide that level of education.

**Fire Technology:** The non-transfer Certificate/Associate degree (AS) in Fire Technology involves the study of fire behavior, protection and control techniques which for individuals currently working within these fields, there may be potential for salary and/or career advancement. This program prepares the student for an entry-level career in the fire service by providing a foundation of core concepts, practices, vocabulary, culture, safety and requirements for the fire service. This program is designed to prepare students for the entry-level career in public or private fire protection agencies, to survey career options, and to upgrade fire personnel. This program follows the Fire and Emergency Services Higher Education (FESHE) model from the National Fire Academy in Emmetsburg, Maryland and is a component of accreditation from the California State Fire Training.

Although most employers do not require certification, earning a voluntary certification from a professional society may offer advantages in the labor market. The National Association of Legal Assistants (NALA), for example, has established standards for certification requiring a combination of education and experience. Paralegals who meet those standards are eligible to take a two-day examination given by NALA. Those who pass the exam will earn a Paralegal Certification.

**Legal Assistant:** The non-transfer Certificate/Associate in Science (AS) degree program in Legal Assistant studies is designed to prepare students for a paraprofessional career in generalized or specialized areas of paralegal services. This program provides the student with the theoretical knowledge and practical skills necessary to enter the job market as a legal assistant in private law offices, government agencies or corporations. A legal assistant works under the direction of an attorney in performing legal services to meet the client’s needs. The Associate in Science degree provides students with the educational foundation helpful for transfer to a baccalaureate pre-law program or related field of study.

**DEGREES**

**Administration of Justice Transfer A.S. Degree(s)**

**Transfer A.S. Degree(s)**

An Associate in Science in Administration of Justice for Transfer will fulfill the requirements for students to transfer to a CSU institution as an Administration of Justice or Criminal Justice major. The courses in the A.S.-T in Administration of Justice for Transfer degree allow for the development of depth in one of the subject’s substantive subsystems (i.e. law enforcement, juvenile, courts or corrections). The main objective is to familiarize students with the processes involved in the interaction of the criminal justice system as a whole.

The major requirements for an A.S.-T in Administration of Justice for Transfer to CSU may be met by:

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.

Continued on page 37
• The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
• A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
• Obtainment of a minimum grade point average of 2.0.

**A.S.-T in Administration of Justice for Transfer (18 units)**

**Required Core (6 units)**
- AJ-101 Criminal Law
- AJ-102 Introduction to Criminal Justice

**List A: Select two (6 units)**
- AJ-103 Criminal Evidence
- AJ-106 Juvenile Procedures
- AJ-108 Criminal Investigation
- AJ-111 Criminal Procedures
- AJ-118 Community and the Justice System
- CORR-101 Introduction to Correctional Science

**List B: Select two (6 units)**

Any course from List A not used above or the following:
- MATH-140 Introduction to Statistics
- PSYC-101 Introduction to Psychology
- PSYC-101H Honors Introduction to Psychology
- PS-101 Introduction to American Government and Politics
- PS-101H Honors Introduction to American Government and Politics

**Units for Major**
- 18

CSU General Education or IGETC Pattern
- 37-39

Possible double counting
- 12

Transferable Electives (as needed to reach 60 CSU transferable units)

**Total Units for A.S.-T Degree**
- 60

This Associate in Science in Administration of Justice for Transfer degree is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. A student completing this degree is guaranteed admission to the CSU system, but not a particular campus or major. Students should meet with a counselor to develop an educational plan and receive university admission and transfer requirements.

---

**Non-Transfer A.S. Degree(s)**

In addition to completing the certificate program, students MUST complete all other MSJC General Education Option A requirements for the Associate in Science degree in Administration of Justice.

**Fire Technology**

Students wishing to obtain the Associate in Science (AS) degree should complete the required core courses (18 units) and two additional elective courses (6 units) in the Fire Technology program to establish a major (24 units total). In addition to the 24 units of the certificate program, students must complete all the MSJC General Education Option A requirements for the Associate in Science (AS) degree in Fire Technology.

**Legal Assistant**

In addition to the 27 units of the certificate program, students must complete all of the MSJC General Education Option A requirements for the Associate in Science (AS) Legal Assistant degree.

---

**CERTIFICATES**

**Certificate in Administration of Justice (24 units)**

A certificate will be issued for completion of five core courses and three elective courses for a total of 24 units. Students may submit a student petition to enrollment services to substitute credit for completion of a P.O.S.T. Basic Peace Officers Academy through an accredited institution. Students must attach official college transcripts and an academy course outline or syllabus to the student petition. The Administration of Justice Department Chair will determine the amount of credit to award the student. Four Administration of Justice courses must be completed at MSJC to earn a certificate.

**Required Courses (15 units)**
- AJ-101 Criminal Law
- AJ-102 Introduction to Criminal Justice
- AJ-106 Juvenile Procedures
- AJ-111 Criminal Procedures
- AJ-118 Community and the Justice System

**Elective Courses (9 units)**
- AJ-103 Criminal Evidence
- AJ-105 Public Safety Report Writing
- AJ-108 Criminal Investigation
- AJ-109 Interview and Interrogation Techniques
- AJ-110 Crime Scene Sketching and Note Taking
- AJ-112 Introduction to Criminology
- AJ-115 Introduction to Probation and Parole
- AJ-125 Vice and Narcotics Control
- AJ-128 Traffic Control, Enforcement and Investigation
- AJ-149 Occupational Internship: Administration of Justice
- AJ-299 Special Projects: Administration of Justice
- CORR-101 Introduction to Correctional Science

**Certificate in Fire Technology (24 units)**

**Required Core Courses (18 units)**
- FIRE-101 Introduction to Fire Technology
- FIRE-102 Fundamentals of Fire Prevention
- FIRE-106 Fundamentals of Fire Behavior and Combustion
- FIRE-109 Fundamentals of Fire Protection and Equipment
FIRE-115 Building Construction for Fire Protection 3 units
FIRE-122 Principles of Fire and Emergency Services 3 units

Elective Courses (6 units)
EMS-120 Emergency Medical Technician 6 units
FIRE-101 Introduction to Fire Technology 3 units

FIRE Technology
Fire Academy Preparation (9 units)
Students completing this certificate will have completed the material required to apply for entrance into a Fire Academy. Some Academies may have additional requirements such as passing a physical abilities test. For specific requirements and further information, contact the Fire Academy you wish to attend.
EMS-120 Emergency Medical Technician 6 units
FIRE-101 Introduction to Fire Technology 3 units

Fire Apparatus Operator Preparation (9 units)
Students completing this certificate will have completed the courses to prepare them to operate fire apparatus.
FIRE-101 Introduction to Fire Technology 3 units
FIRE-103 Fire Hydraulics 3 units
FIRE-107 Fire Apparatus and Equipment 3 units

Legal Assistant
Legal Office Support (12 units)
Required Courses (9 units)
CAPP-127 Using Microsoft Word 3 units
LEG-100 Foundations of the Legal System 3 units
LEG-104 Law Office Management 3 units

Elective Courses (3 units)
BADM-201 Legal Environment of Business 3 units
LEG-103 Elder Law 3 units
LEG-105 California Civil Procedure 3 units

EMPLOYMENT CONCENTRATIONS

Administration of Justice
Computer Forensics (16 units)
AJ-103 Criminal Evidence 3 units
AJ-105 Public Safety Report Writing 3 units
AJ-108 Criminal Investigation 3 units
CSIS-181 Computer Hardware – Level 1 4 units
CSIS-182 Computer Forensics 3 units

Corrections (15 units)
CPOST (Correctional Peace Officer Standards and Training) has developed a recommended pattern of classes that would benefit correctional peace officer apprentices. Students completing these classes may receive a higher application score when applying for positions within the Department of Corrections.

Required Courses (12 units)
AJ-105 Public Safety Report Writing 3 units
CORR-101 Introduction to Correctional Science 3 units
CORR-102 Control and Supervision in Corrections 3 units
CORR-103 Correctional Interviewing and Counseling 3 units

Elective Courses (3 units)
AJ-101 Criminal Law 3 units
CORR-104 Legal Aspects of Corrections 3 units
The Transportation sector is designed to provide a foundation in transportation services for all industrial technology education students in California. The pathways emphasize real-world, occupationally relevant experiences of significant scope and depth in Aviation and Aerospace Transportation Services, Collision Repair and Refinishing, and Vehicle Maintenance, Service, and Repair. Careers in the Transportation Industry are projected to grow is projected to grow by 1.1 million between 2004 and 2014. The industry is looking for younger workers that have strong technical skills like those learned in a community college program. In the past, a high school education was sufficient to gain employment in this industry; however, increased competition has created a need for job seekers to have at least some college education.

The standards are designed to integrate academic and technical preparation and focus on career awareness, career exploration, and skill preparation in the three pathways. Integral components include classroom, laboratory, hands-on contextual learning, and project- and work-based instruction as well as internship, community classroom, cooperative career technical education, and leadership development. The Transportation sector standards prepare students for continued training, postsecondary education, and entry to a career.

Automotive/Transportation Technology Program:
Automotive Technology is a career oriented non-transfer occupational program that prepares students to work in today’s highly automated repair shops, and provides the background for career advancement in the automotive industry. Students get hands-on training and instruction in automotive repair and maintenance. Our Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations, and specialty shops.

**DEGREE**

*A.S. in Automotive/Transportation Technology*

The major for an Associate in Science (AS) degree in Automotive/Transportation Technology may be met by completing the certificate in the Automotive/Transportation program. In addition, students must complete all MSJC General Education Option A requirements for the Associate in Science degree in Automotive/Transportation Technology.

**CERTIFICATE**

*Certificate in Automotive/Transportation Technology (20 units)*

<table>
<thead>
<tr>
<th>Required Courses (20 units)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AUME-100 Basic Auto Mechanics</td>
<td>4 units</td>
</tr>
<tr>
<td>AUME-119 Automotive Brake Systems</td>
<td>4 units</td>
</tr>
<tr>
<td>AUME-120 Automotive Suspension, Steering and Alignment Systems</td>
<td>4 units</td>
</tr>
<tr>
<td>AUME-122 Engine Performance I</td>
<td>4 units</td>
</tr>
<tr>
<td>AUME-126 Automotive Electrical/Electronics I</td>
<td>4 units</td>
</tr>
</tbody>
</table>

**EMPLOYMENT CONCENTRATIONS**

*Automotive Emission Technician (12 units)*

| AUME-110 Basic and Advanced Clean Air Car Course | 6 units |
| AUME-111 Emission Controls A6/A8/L1 | 6 units |

*Engine Performance Technician (14 units)*

| AUME-111 Emission Controls A6/A8/L1 | 6 units |
| AUME-123 Engine Performance II | 4 units |
| AUME-127 Automotive Electrical/Electronics II | 4 units |

*General Technician (17 units)*

| AUME-118 Heating/Air Conditioning Systems | 4 units |
| AUME-124 Engine Theory and Repair | 5 units |
| AUME-175 Automatic Transmissions & Transaxles | 4 units |
| AUME-185 Manual Transmissions & Transaxles | 4 units |

*Honda Fast Track (6 units)*

| AUME-101 Maintenance Light Repair I | 2 units |
| AUME-109 Basic Maintenance Light Repair II | 4 units |

**CAREER OPPORTUNITIES**

Automotive Service Technician and Mechanic
Electrical/Electronics Installer and Repairer
First-Line Supervisor
Heating and Air Conditioning
Light Repair Tech
Manager of Mechanics
Porter Express
Refrigeration Mechanic
A CTE Success Story...

“Building Up S.T.E.A.M.”
Middle School Summer Camp

June 2014

Camp Focus:
• Career Awareness
• Hands-on Activities
• Transition to High School
• Personal Student Inventories
• Socialization & Building Self-esteem
• Teamwork

Science
Technology
Engineering
Art/Design
Mathematics

Funded by Career & Technical Education
SB70 Collaborative Pathways Grant

MSJC
Mt. San Jacinto College