



GRAPHIC COMMUNICATIONS PROGRAM



Felipa Gonzalaz
– Graphic design student

"The graphic communications instructors at LMC have inspired me - they are so open and giving. After interning in the LMC Marketing Department, I was hired as a student worker designing banners, flyers and logos for LMC's Student Life Department. I've been able to apply my graphic design lessons in a formal work environment, preparing me for my next step – transferring to UC San Diego!"

How do I become a graphic designer?

Come to LMC! We offer beginning broad-based graphics classes as well as focused areas of study. When you finish here, you'll have the necessary tools to pursue a career in the arts that can actually pay you.

Is an associate's degree enough to find work?

An Associate of Arts in Graphic Communications, whether as a transfer degree or a degree from LMC, is a great place to start - but what matters most is what you learned and what you can create. A degree may get you an interview, and is a requirement for many positions, but your work — your portfolio — is what gets you hired. You can accomplish both at LMC.

How important are internships?

Internships are very important to anyone serious about their career in the arts and creative sectors. Internships, shadowing and mentorships provide work experience and hands-on skills that the classroom cannot provide. These partnerships build a better student, a better artist and a better team in the workplace. Understanding the commercial arts means understanding team-based workflows, developing critical thinking skills, and refining communication skills.

Do I need to study fine arts too?

A fine arts degree is not required for a graphic communications degree. However, commercial artists who complete the program with a strong fine arts core in drawing, photo composition and design are that much better prepared for success in the field. Our graphics and fine arts programs are closely aligned to provide students with opportunities to focus on one degree or to leave with a dual major. The fine arts courses at LMC provide you with hands-on experience with materials, and builds valuable skills for a designer. Our experience as working professionals is this: "The more you know, the better equipped you are to work in the field."

How much does it cost?

There are no additional course fees beyond enrollment fees. Current enrollment fees for residents and non-California residents are published on the college website at www.losmedanos.edu/admissions/fees. Textbooks will need to be purchased and the LMC Bookstore stocks books for each course immediately before each course begins. Most classes require some supplies which you purchase yourself. This might include items like frames, digital prints, a portfolio case, pens, pencils and drawing pads.

Tell me about computers and software in graphic communications

The college has an up-to-date computer lab within the graphics area, loaded with current graphics software. In today's work environment, most graphic design involves a computer at some point. Our classes reflect that reality. Our lab has Mac computers for student use. We teach Adobe software, including Indesign, Illustrator and Photoshop. However, more than learning one company's software, you'll learn the concepts behind using the tools, so that if the software changes, your skills still remain valuable. Classes are structured so you can complete them without having your own computer or software.

We don't expect students to enter the program with computer expertise or software experience. That's what we'll teach you.

It is the policy of the Contra Costa Community College District and Los Medanos College to provide an educational and employment environment in which no person shall be unlawfully subject to discrimination on the basis of ethnic group identification, national origin, religion, age, sex, sexual orientation, gender, race, color, medical condition, ancestry, marital status or physical or mental disability or based on association with a person or group with one or more of these actual or perceived characteristics. This holds true for all students who are interested in participating in educational programs and/or extracurricular activities. Unlawful harassment, discrimination or denial of access of any employee/student with regard to ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability is strictly prohibited. The lack of English language skills will not be a barrier to admission and participation in the college's education programs. Inquiries regarding compliance and/or grievance procedures and requests for the elevation and addition of sports may be directed to the Los Medanos College Title IX Officer and Section 504/ADA Coordinator: Gail Newman, Senior Dean, Student Services, gnewman@losmedanos.edu, (925) 473-7421

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GRAPHIC COMMUNICATIONS PROGRAM

The Curriculum

For the Certificate of Achievement in Graphic Communications, complete 30 units of coursework listed below. Consult a Los Medanos College counselor to develop your education plan.

Required Courses

ART-005 Visual Arts Concepts	3 units
ART-010 Two-Dimensional Design Concepts	3 units
ART-012 Design Drawing	3 units
ART-015 Graphic Design	3 units
ART-025 Advertising, Marketing, and Publication Design	3 units
ART-072 Introduction to Digital Photography	3 units

TOTAL REQUIRED IN MAJOR COURSES.18 UNITS

And select a minimum of 12 units

ART-050 Designing with Adobe InDesign.	3 units
ART-054 Adobe Photoshop	3 units
ART-057 Designing with Adobe Illustrator	3 units
ART-075 Documentary Photography	3 units
ART-085 Introduction to Animation	3 units
ART-086 Animation and 3D Modeling	3 units
ART-250 Introduction to Digital Art.	3 units
JOURN-110 Writing for the Media	3 units
JOURN-160 Photojournalism	3 units

TOTAL UNITS FOR THIS CERTIFICATE30 UNITS

Careers in Graphic Design:

Graphic design is a career where you make art for the real world, and get paid for doing it. Graphic design is everywhere. Look around. How many logos can you see? Someone designed every book cover, CD cover or magazine that you see. A graphic designer created every printed t-shirt and web page. There are many opportunities to make a career out of being creative. Graphic designers are visual communicators. Unlike fine artists, whose work reflects self-expression, graphic designers work with clients to communicate their client's message. The work can include branding, product design, packaging, print advertising, creating websites and online ads, or working with printers and publishers. Graphic designers are visual problem solvers for their employers.

Fine Art and Graphic Design Salary Averages in California:

Fine Artists, including Painters, Sculptors and Illustrators: \$13.20-\$53.54/hour

Graphic Designer: \$15.00-\$43.76/hour

Commercial and Industrial Designer: \$17.39-\$51.39

Web Developers: \$17.08-\$54.68

Information gathered from onetonline.org which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Graphic Communications, complete 30 units of coursework listed to the left.

Associate of Arts Degree

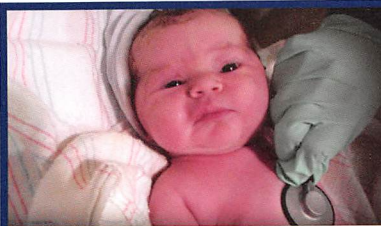
For the Associate of Arts Degree, students must complete the units of coursework listed as well as the General Education requirements.

Want to know more?

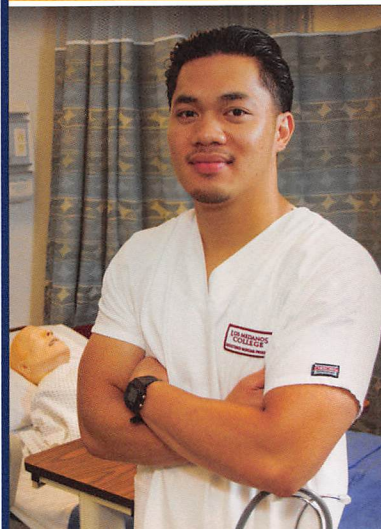
Visit www.losmedanos.edu/graphics or contact Curtis Corlew at ccorlew@losmedanos.edu, 925-473-7820.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more. Consult with a Los Medanos College counselor to develop your education plan.



REGISTERED NURSING PROGRAM



Marc Ajero

– Registered Nursing student

"LMC's Nursing Program is not just a place to learn, it is a place to connect with individuals who share the same passion of touching people's lives. That is and will forever be the greatest lesson I've learned from LMC nursing staff."

Why should I choose the Registered Nursing Program at LMC?

The Los Medanos College Nursing Program has developed a reputation as one of the premiere providers of nursing education in Northern California. Our nursing students consistently have a high pass rate on the State Board Exams. The college has excellent faculty and staff who are committed to promoting student success. Most of our graduates are placed in local health care facilities where feedback from their employers has been positive and supportive of the college and its nursing program.

I'm interested, what should I do now?

It is recommended that potential nursing students register for the Nursing Career Seminar (RNURS-001). Also read the Registered Nursing Applicant Handbook (available online at www.losmedanos.edu/nursing/handbook/handbook).

After you have completely read the handbook, make an appointment with an LMC counselor for help in selecting courses.

How do I apply for the Registered Nursing Program?

Obtain a Registered Nursing Applicant Handbook which can be purchased from the LMC Bookstore or you can access the handbook online at <http://www.losmedanos.edu/nursing/handbook.asp>. The handbook

includes a list of prerequisite courses to be completed before you apply to the Registered Nursing Program, the application(s) to the Registered Nursing Program, required materials to include with your application, and dates when applications are accepted.

How long is the Registered Nursing Program?

The Registered Nursing Program begins every fall semester and is a two (2) year or four (4) semester program. Please read the Registered Nursing Applicant Handbook for specific application and start dates.

Want to know more?

Visit www.losmedanos.edu/nursing or contact the Nursing Office at 925-473-7756.

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REGISTERED NURSING PROGRAM

The Curriculum

Prerequisite Courses (24-27 units)

ENGL-100	College Composition	(3 units)
MATH-029 or MATH-030	Accelerated Elementary & Intermediate Algebra	(4 units)
BIOSC-040	Human Anatomy	(5 units)
BIOSC-045	Human Physiology	(5 units)
BIOSC-050	Intro to Microbiology	(4 units)
PSYCH-010 or PSYCH-011	Individual and Social Processes	(3 units)
	General Psychology	(3 units)

The curriculum below includes the major coursework for the Associate of Science Degree in Registered Nursing. These classes must be taken in this sequence. There is no exception to this rule. Only those students who are formally admitted to the program may enroll in registered nursing courses.

First Semester (11.5 units)

RNURS-022	Foundations of Nursing Practice	(9.5 units)
RNURS-023	Nursing Skills Simulation I	(1 units)
RNURS-024	Pharmacology for RN Program I	(1 units)

Second Semester (11.5 units)

RNURS-026	Nursing in Health and Illness I	(9.5 units)
RNURS-027	Nursing Skills Simulation II	(1 units)
RNURS-028	Pharmacology for RN Program II	(1 units)

Third Semester (11.5 units)

RNURS-031	Nursing in Health & Illness II	(9.5 units)
RNURS-033	Nursing Skills Simulation III	(1 units)
RNURS-034	Pharmacology for RN Program III	(1 units)

Fourth Semester (12.5 units)

RNURS-030	Leadership/Management/Professionalism	(1 units)
RNURS-036	Nursing in Health & Illness III	(9.5 units)
RNURS-038	Nursing Skills Simulation IV	(1 units)
RNURS-039	Pharmacology for RN Program IV	(1 units)

TOTAL UNITS FOR THE MAJOR	47
TOTAL UNITS FOR THE DEGREE	60

Careers in Nursing for Registered Nurses:

Nursing is a challenging and rewarding career for those seeking to make a difference in people's lives. It requires good communication skills, critical thinking, decision making, and knowledge of science and technology. Nurses often work varying shifts, including days, evening, nights or per diem (on-call). Opportunities are available throughout the nation, allowing graduates to relocate almost anywhere.

The Registered Nursing Program at LMC is designed to prepare qualified graduates to practice nursing in entry-level positions. The focus is on learning healthcare needs of all ages in medical, surgical, obstetric, pediatric and psychiatric settings. In addition to classroom theory and skills practice in campus laboratories, clinical experience is provided in a variety of medical centers and health care agencies in the Bay Area. LMC also offers a career ladder for LVNs to become RNs. Please consult the Nursing Applicant Handbook for more information on all nursing programs.

Registered Nursing Average Salaries in California:

Registered Nurse: \$35.09-\$75.90/hour (depending on location and shift differential)

Information gathered from onetonline.org which is sponsored by the Department of Labor, 2014

Associate of Science Degree:

The Associate of Science Degree in Registered Nursing at LMC requires two academic years beyond completion of the prerequisite courses and General Education requirements. This degree requires a total of 60 degree-applicable units including major courses and General Education Requirements. Completion of prerequisite courses and required GPA are required for admission eligibility to the program. Only those students formally admitted may enroll in registered nursing courses. Students may, however, enroll in other non-nursing courses designated as part of the registered nursing curriculum while awaiting admissions to the program. Completion of the Registered Nursing Program at Los Medanos College qualifies students to take the State Board Examination (NCLEX-RN) for licensure as a Registered Nurse (RN).



CHILD DEVELOPMENT

Associate in Science for Transfer in Early Childhood Education



– Ashley Pate

LMC Child Development alumna
BA and Teaching Credential,
Sacramento State University.
Now teaching in Danville, San Ramon
Valley Unified School District

"The Child Study Center at LMC changed who I now am as an employee and a teacher. Not only was I able to experience having a mentor my first two semesters as a new student, I also grew as a teacher and then became a senior mentor myself. I was able to apply what I was learning in class by working at the Child Study Center on a daily basis. The hands-on experience with children that LMC offers is truly the most unique and special thing about their program."

What certificates and degrees are offered?

In addition to our Certificate of Achievement in Child Development and Associate in Science for transfer in Early Childhood Education (AS-T), we also offer specialization certification in Curriculum, Special Needs, Administration, and Infant /Toddler as well as Assistant Teacher, Associate Teacher and School Age Teaching, and School Age Development and Education. These certificates are designed to meet specialization requirements of the Child Development Permit Matrix issued by the State of California Commission of Teacher Preparation.

Are classes in child development from LMC transferrable to 4-year colleges & universities

Yes! Most of the child development courses transfer to the CSU and 3 of them are included in CSU General Education Requirements (CHDEV 10, CHDEV 20 and CHDEV 50). Additionally our AS-T allows students to transfer with "junior status" to many CSUs with related bachelor degree programs. Come to the Child Study Center to receive a current list of CSU programs into which one may transfer.

What kind of teaching license do I need to teach young children?

Currently, a California Child Development Permit is required to teach in all state and federally funded early childhood programs. Many private and non-profit programs also choose to require a Child Development Permit to work in their programs. Teaching in private for-profit programs and in-home child care programs require at least 12 units in Child Development/ECE units. All the classes you need to obtain a Child Development Permit at the various levels are available in LMC's Child Development Dept. Individualized academic advising will assure that you get the exact classes you need to obtain your desired permit.

What services and resources does the department offer?

Our Child Study Center provides a laboratory for teacher training and educational research, as well as a child-centered learning environment for children of student parents. The center is NAEYC accredited and offers internship employment to select child development majors upon successful completion of CHDEV 83 (Field Experience in Early Childhood).

We have strong support services for our students including various opportunities for financial support. The Child Development Training Consortium provides reimbursement of enrollment fees for college courses completed with a "C" or higher for students employed in the field. The Child Development Grant Program is a need-based grant that provides up to \$1000 per academic year; students enrolled half-time or more in coursework leading to a Child Development Permit are eligible to apply. First 5 Contra Costa County offers advising, stipends, and academic support services for students employed in early education programs serving children birth-age 5.

The college offers cohort courses in math as well as CHDEV-ESL linked courses with tutoring as an additional support of the program. Professional Growth Advisors are available to work with both students and current teachers to develop professional growth plans and to support quality care efforts in our community. Contact the First 5 Professional Development Office at 925-473-7639 for registration information for these special cohorts.

Does the Child Development Department provide employment assistance?

Although we do not provide specific employment placement services, many of our CHDEV majors gain employment from our local community partners before they even finish their entire program! We have an excellent reputation with many agencies that hire early childhood professionals, and our graduates are in demand to fill positions. Many students are hired as Student Intern Teachers right here at our laboratory school while working on their degree. The experience they gain in curriculum development, child and program assessment, mentoring techniques, and collaborative practice has proved to be invaluable in the employment market as well as advancement to a higher California Permit level.

Want to know more?

Visit www.losmedanos.edu/childdev or contact the Child Study Center Reception Desk at 925-473-7640.

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CHILD DEVELOPMENT

Associate in Science for Transfer in Early Childhood Education

The Curriculum

Below is a suggested schedule for the courses required for the Associate Degree for Transfer. Some of the courses may be taken in a different order or students may take more or less coursework each semester. Many courses are also available in an online format. The curriculum is a combination of classroom teaching, laboratory practicum experience and community site visits based on a philosophy of active learning.

Semester 1 (15 units)

CHDEV 001

Intro to Princ & Practices in Early Childhood Edu (3 units)

CHDEV 010*

Child Growth and Development (3 units)

GE Requirements** (9 units)

Semester 2 (15 units)

CHDEV 020* Child, Family, and Community . . (3 units)

CHDEV 062***

Curriculum Foundations for the Young Child. . . (3 units)

GE Requirements** (9 units)

Semester 3 (15 units)

CHDEV 011 Observation and Assessment. . . . (3 units)

CHDEV 050 Teaching in a Diverse Society. . . . (3 Units)

GE Requirements** (9 units)

Semester 4 (15 units)

CHDEV 065 Health, Safety and Nutrition in Early Childhood Programs (3 units)

CHDEV 090 Student Teaching Practicum in Early Childhood Education (4 Units)

GE Requirements** (8 units)

TOTAL UNITS FOR THIS DEGREE 60 UNITS

* These courses double-count toward the major and GE requirements for transfer.

**The Child Development Department has a list of recommended courses to take for General Education (GE) requirements. Please call (925) 473-7640 for complete information and to develop an education plan. Some GE courses are more units than others, therefore the total units required can vary.

***For students not working in a licensed early childcare program, take CHDEV 83 with CHDEV 62 to meet the experience requirement for the the major.

Careers in Child Development:

LMC's Child Development Program prepares you for careers with children, such as early childhood educator, Head Start teacher, family childcare provider, center director/site supervisor and elementary school teacher. Our courses also ready you for transfer to 4-year universities in majors such as human development, child development, liberal studies towards a teaching credential, and early childhood education. Parents and future parents will benefit from the coursework as it prepares all adults to work successfully with children. We offer specialization coursework as it prepares you to work with infants and toddlers, children with special needs and school age children in addition to coursework that meets the requirements to become a center director/site supervisor.

Preschool, Childcare and Elementary School Salary Averages in California:

Preschool Teacher, except Special Education: \$10.25-\$23.48/hour

Teacher's Assistant: \$19,300-\$39,600 (hourly data not available)

Special Education Teacher, Kindergarten & Elementary School: \$43,700-\$91,700/annual

Elementary School Teacher, except Special Education: \$46,400-\$92,300/annual

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Early Childhood Development, complete 25 units of major coursework listed on the left column. For degree, certificate, waiver assistance and educational planning, contact the Child Study Center Reception Desk at 925-473-7640.



Associate Degree
for Transfer™

Associate in Science for Transfer Degree

The Associate in Science for Transfer in Early Childhood Education (AS-T) is a 60-unit degree program designed to prepare students to transfer and study child development, human development, and early childhood education. The program, which requires 25 units of lower division work in child development, is combined with the California State University General Education pattern of 40-42 units. Up to 6 units may be double-counted toward the 25-units of major coursework in the CSU GE pattern so the degree can be achieved in 60 units. Students will be prepared to take upper division courses their first semester after transferring. Typically, students who complete this program will be able to complete their upper division coursework in only two additional years. To complete the AS-T degree, consult the LMC Catalog for General Education Requirements and elective options, www.losmedanos.edu/catalog.

The Associate in Science Degree in Early Childhood Education for Transfer also prepares students for entry and mid-level career options in childcare, preschool education, special education, and before-and-after-school programs. Upon completion of this program, students will be eligible to apply for the Teacher level permit on the Child Development Permit Matrix from the State of California Commission on Teacher Credentialing. Students will complete lower division courses in child growth and development, principles and practices in early childhood education, curriculum, observation, assessment, child/family/community relationships, diversity, health and safety, and a culminating student teaching practicum.

LOS MEDANOS COLLEGE



RECORDING ARTS PROGRAM

The Certificate Curriculum

Typical Sequence – 4 semesters

Fall (9 units)

RA-010	Introduction to Recording Arts	(3 units)
RA-012	Sound Reinforcement	(3 units)
RA-015	Music Fundamentals for Audio Professionals	(3 units)

Spring (8 units)

RA-20	Recording Arts II	(3 units)
RA-021	The Role of the Producer (Basic Session Producing)	(2 units)
RA-025	Basic Tracking Sessions	(3 units)

Fall (4 units)

RA-030	Recording Arts III	(3 units)
RA-032	Recording Arts Workshop	(1 unit)

Spring (6 units)

RA-035	ProTools Production and Editing	(3 units)
RA-040	Recording Arts IV	(3 units)
TOTAL FOR THIS CERTIFICATE		(27 units)

Typical Sequence – 3 semesters + Summer

Spring* (8 units)

RA-010	Introduction to Recording Arts	(3 units)
RA-015	Music Fundamentals for Audio Professionals	(3 units)
RA-021	The Role of the Producer (Basic Session Producing)	(2 units)

Summer (3 units)

RA-020	Recording Arts II	(3 units)
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Fall (7 units)

RA-012	Sound Reinforcement	(3 units)
RA-030	Recording Arts III	(3 units)
RA-032	Recording Arts Workshop	(1 unit)

Spring (9 units)

RA-025	Basic Tracking Sessions	(3 units)
RA-035	ProTools Production and Editing	(3 units)
RA-040	Recording Arts IV	(3 units)
TOTAL FOR THIS CERTIFICATE		(27 units)

*Note: Since RA-010, 020, 030 and 040 must be taken in sequence and are not offered every semester, the 3 semester (plus summer) scheme must begin in Spring.

RA-033, Summer Recording Workshop, requires prior or concurrent enrollment in RA-020. The prerequisite for this is RA-010.

Recording Arts Program

Students of recording arts technology learn how to produce sound for a range of media. They learn how to record music, dialogue, and sound effects; edit, dub, and mix; operate and maintain equipment; and more. Technology is constantly changing and, here at LMC, we're up on the latest industry standards to help you succeed in the career of your dreams.

Careers in Recording Arts:

There are many opportunities for the trained recording arts professional in the fields of producing, sound reinforcement, independent audio engineering, mastering, video game creation, film and television sound, radio broadcast, forensic audio, hardware and software development, equipment maintenance and repair, bio-acoustic research, theatre sound, and many more.

It is extremely important to recognize that the industry has undergone a major paradigm shift in recent years. "Studio jobs" continue to exist, but due to the reduction in the need for large numbers of major studios, they are extremely scarce. The current model calls for entrepreneurs and independent contractors, trained to operate in a more "freelance" environment.

Digital technology and distribution via the Internet has shifted emphasis away from large record labels to independents who handle their own content and distribution, primarily by download.

Recording Arts Salary Averages in California:

Audio/Video Equipment Technician: \$12.58-\$40.42/hour

Sound Engineering Technician: \$13.49-\$55.18/hour

Information gathered from onetonline.org which is sponsored by the Department of Labor, 2014

Certificate of Achievement:

For the Certificate of Achievement in Recording Arts, complete 27 units of major coursework – see left column for a sample schedule. This certificate curriculum is provided as a sample guide showing what a student's schedule may look like. There is no guarantee that all classes will be offered each semester or that space will be available.

Associate of Arts in Recording Arts Degree:

For this degree, a total of 60 degree-applicable units are required. Complete 27 units of major coursework (from left column) as well as the General Education requirements. Consult the LMC Catalog for General Education Requirements and elective options at www.losmedanos.edu/catalog.



RECORDING ARTS PROGRAM



Erin Tadena
Recording Arts Student

"The great education I am receiving from LMC's Recording Arts Program has allowed me to work professionally in the field today. There is nowhere else in the Bay Area where I could have received such high quality training, and learn how to work on the same types of digital audio equipment currently being used by many top recording artists. Thanks LMC!"

What sets the LMC Recording Arts program apart from others?

Recording Arts at Los Medanos College is one of the finest programs of its kind in the country. Our faculty and graduates have collected over 30 Grammy nominations, 20 Grammy Awards, and numerous other industry accolades.

Instructors are working professionals whose credits include artists ranging from Wynton Marsalis to Robert Cray, Elvin Bishop, the Gospel Hummingbirds, and the national cast of Andrew Lloyd Webber's "Phantom of the Opera".

The curriculum is geared towards the up-to-the-minute demands of the recording industry for professionals who are knowledgeable about and competent with cutting edge technology.

Who can succeed in this program?

The Certificate of Achievement in Recording Arts is a very rigorous program. The student who will most likely succeed is highly skilled in math, science and reading. All three skills are necessary for success in completing this demanding program. In addition, strong self-motivation will be required.

What are typical earnings ranges for these professions?

These can vary widely, depending on the specialized field and experience over time. A recording engineer working as an apprentice with no experience will make a modest salary, perhaps close to minimum wage. This expands with time and valid work credits to the \$60-100 per hour range for studio work.

Competent mastering engineers, working as independents, can earn considerably more. Producers and developers of content can have very high earnings due to royalties and residuals often associated with their work.

Want to know more?

Visit www.losmedanos.edu/recarts/ or contact Frank Dorritie at fdorritie@losmedanos.edu.

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BUSINESS PROGRAM

Associate in Science for Transfer in Business Administration



Brian A. Ortega
*Associate in Science in
Business Administration for
Transfer '14*

"The LMC professors, with their knowledge and real-world experience, were great in preparing me to transfer. I'm excited to be transferring to San Jose State University as a business major with an emphasis in human resources."

I have heard of AA and AS degrees but what is an AS-T degree?

The Student Transfer Achievement Reform Act (SB 1440), signed into legislation on September 29, 2010, enabled California Community Colleges and California State Universities to work together to create the Associate in Arts for Transfer Degree (AA-T) and the Associate in Science for Transfer Degree (AS-T). Upon completion of the associate degree for transfer, the student is eligible for transfer with junior standing into the California State University (CSU) system.

Students are given guaranteed admission into the CSU system, and are given priority consideration when applying to a particular program that is similar to the student's community college major. The law prohibits the CSU from requiring a transferring student to repeat courses similar to those taken at the community college that counted toward their associate degree for transfer.

Where can I transfer?

AS-T degrees were specifically designed for transfer to the CSU system. However, the program will provide the necessary preparation for transfer to most four-year colleges or universities offering a baccalaureate degree in business.

Want to know more?

Visit www.losmedanos.edu/business or contact Betty Pearman at bpearman@losmedanos.edu, 925-473-7780.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more. Consult with a Los Medanos College counselor to develop your education plan.

How long does it take to complete the program?

The Associate in Science for Transfer in Business Administration degree can be completed in four semesters as a full time student at Los Medanos College. It will take another four semesters at a four-year college or university to obtain a baccalaureate degree.

What are some of the classes I will be taking if I pursue this degree?

The AS-T core classes consist of 27-29 units. Courses in accounting, economics, business law, introduction to business, and math are all part of the AS-T core requirements. You will also take general education and elective courses to reach the 60-unit requirement for an AS-T degree. See the reverse side for a sample roadmap to help you in creating your education plan.

Why come to LMC for my first two years?

California community colleges continue to be one of the best educational bargains. We offer small class sizes with time for individual attention and a chance to know your instructors and your fellow students. Our faculty love to teach and inspire the best in our students.

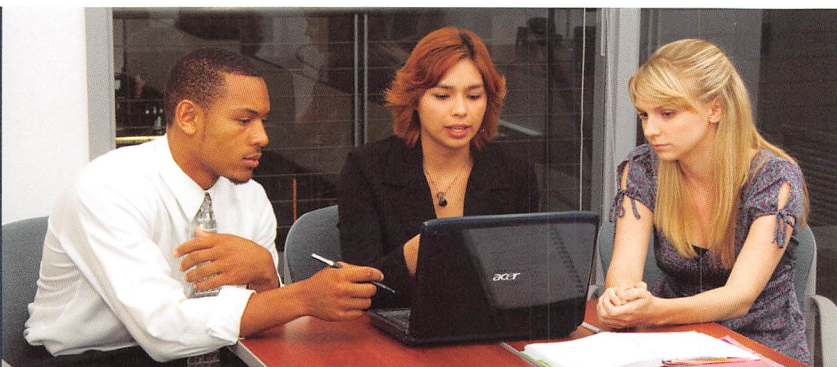
It is the policy of the Contra Costa Community College District and Los Medanos College to provide an educational and employment environment in which no person shall be unlawfully subject to discrimination on the basis of ethnic group identification, national origin, religion, age, sex, sexual orientation, gender, race, color, medical condition, ancestry, marital status or physical or mental disability or based on association with a person or group with one or more of these actual or perceived characteristics. This holds true for all students who are interested in participating in educational programs and/or extracurricular activities. Unlawful harassment, discrimination or denial of access of any employee/student with regard to ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability is strictly prohibited. The lack of English language skills will not be a barrier to admission and participation in the college's education programs. Inquiries regarding compliance and/or grievance procedures and requests for the elevation and addition of sports may be directed to the Los Medanos College Title IX Officer and Section 504/ADA Coordinator: Gail Newman, Senior Dean, Student Services, gnewman@losmedanos.edu, (925) 473-7421

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BUSINESS PROGRAM

Associate in Science for Transfer in Business Administration

The Curriculum

This list is provided as a sample guide showing what a full-time student's schedule may look like.

First Semester (15-17 units)

BUS 109	Intro to Business	(3 units)
COMSC 040	Intro to Computers (or)	
BUS 059	Business Communications	(3 - 4 units)
MATH 034	Intro to Statistics	(4 units)
ENGL 100	College Composition	(3 units)
GE or elective or		
BUS 181*	Accounting	(2-3 units)

Second Semester (15 - 19 units)

BUS 294	Business Law.	(3 units)
**MATH 037	Applied Calculus (or)	
MATH 050	Calculus/Analytical Geometry	(4 units)
ENGL 220	Critical Analysis/Inquiry (or)	
***ENGL 221	Advanced Comp and Critical Thinking	(3 units)
GE Physical Science	. . . . .	(3-4 units)
GE or Elective	. . . . .	(2-3 units)

Third Semester (15 - 16 units)

*BUS 186	Financial Accounting	(4 units)
ECON 010	Principles of Microeconomics	(3 units)
SPCH 110	Speech Communications or	
SPCH 120	Argumentation and Debate	(3 units)
GE/Electives	. . . . .	(5 - 6 units)

Fourth Semester (17 - 18 units)

BUS 187	Managerial Accounting.	(4 units)
ECON 011	Principles of Macroeconomics	(3 units)
GE Biological Science	. . . . .	(4 - 5 units)
GE/Electives	. . . . .	(5 - 6 units)
TOTAL UNITS.		60

*BUS-181 is recommended before BUS-186 if you are unfamiliar with accounting principles.

**Some universities require MATH-035, or 037, or 050. Please check with your LMC Counselor and www.assist.org for specific campuses.

***The Business Administration major at UC Berkeley requires English 230; and two or three semesters of a foreign language must be completed (if three years of a foreign language were not completed in high school).

Careers in Business Administration

There are many types of careers in business, with new ones sprouting up daily. We're here to help you get a good foundation to build your future in this dynamic field. Whether you want to be an accountant, a human resources manager, a marketing director, a financial analyst, or create your own startup, LMC can help you get started.

Associate of Science for Transfer Degree

The Associate in Science in Business Administration for Transfer Degree (AS-T) is a 60-unit degree program designed for students desiring advanced degrees in business administration. The LMC Business Administration courses meet lower division transfer requirements for business degrees such as accounting, marketing, management, international business, or finance, including the first and second year requirements for transfer to a four-year institution. A baccalaureate degree is the recommended preparation for those considering professional careers in business. Students are strongly advised to meet with a counselor to discuss transfer requirements and lower division major preparation that is needed for their intended school.



Associate Degree
for Transfer™

A full-time student can complete this degree in 2 to 3 years.

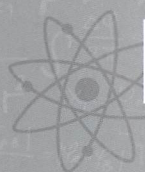
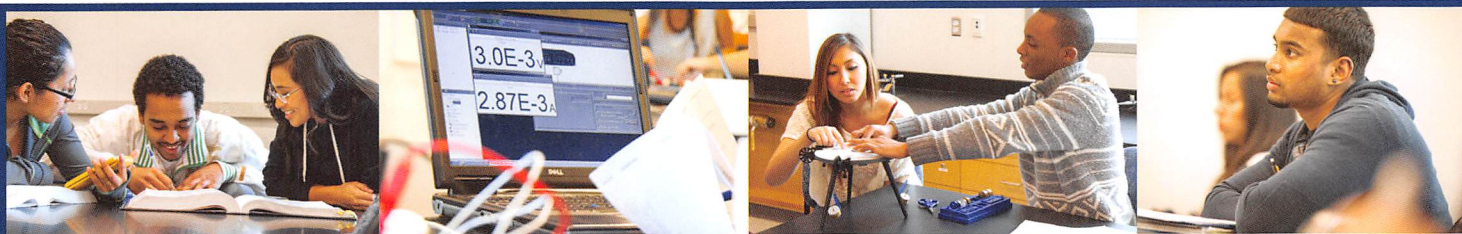
The degree requires:

1. Completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
 - b. A minimum of 18 semester units in the Business Administration major.
2. Minimum grade point average of 2.0.
3. Earning a C or better in all courses required for the Business major.

Business Administration Salary Averages in California:

Accountants & Auditors \$20.86-\$56.18/hour
Marketing Managers \$34.75-\$90.00/hour & up
Human Resources Manager: \$31.16-\$90.00/hr & up
Financial Managers \$32.69-\$90.00/hour & up

Information gathered from onetonline.org and sponsored by the Department of Labor, 2014



PHYSICS PROGRAM

ASSOCIATE DEGREE FOR TRANSFER



Katie Hellier

LMC Alumna – Transfer Path
Bachelor of Science in Physics,
UC Santa Cruz

I never thought I'd be interested in science, but after my first physics class, I was so inspired that I changed my entire academic plan. The instructors have such a great passion for teaching and encouraging students to pursue physics that I felt like that I would succeed anywhere. The classes were so in-depth that when I transferred, I never felt like I was left behind or had missed out by not taking the lower division classes at my university.

After earning my bachelor's degree from UC Santa Cruz, I became a physics lab manager and researcher on campus working in solar technology. I maintain the lab, run three projects, and work with eight undergraduates, training and assisting them in research. The experiences I had at LMC prepared me to work with others and coach them in their studies.

I plan to continue on with graduate school and earn my PhD in Physics, leading to a career in science policy and communication, helping others understand science and math in a way meaningful to them and beneficial to the advancement of our society.

Where can I transfer?

Los Medanos College students have successfully transferred to UC Berkeley, UC Davis, UC Santa Cruz, UC Los Angeles, San Jose State, San Francisco State, and many other universities and colleges.

What resources at LMC are available to help STEM transfer students succeed?

The MESA (Math, Engineering, & Science Achievement) Center offers tutoring and support in all STEM fields. Students are encouraged to join MESA, a national program for first-generation college students interested in STEM fields of study. We have a STEM counselor who helps students develop an education plan for transfer. Math labs are available at the Pittsburg and Brentwood campuses. In addition, students can receive help from STEM faculty during office hours and from tutors in the Center for Academic Support.

Do I need to take the LMC Math Placement Assessment?

No. If you have passed Algebra 2, with a C or better for two semesters you can register for Pre-Calculus with your high school transcripts.

How long will it take me to transfer to a university or college in my chosen field of physics?

Students can choose from a 2-year roadmap of classes or a 3-year roadmap of classes, depending on which classes they took in high school, and how they plan their time at LMC. The STEM Counselor will help you decide which roadmap works best for you.

Do I need to take CSU General Education courses or IGETC courses in order to transfer to a 4 year college or university with an emphasis in physics?

No. Our STEM Counselor will help you sort out the classes needed for transfer in physics.

Does LMC offer an AS-T (Associate in Science for Transfer) Degree in Physics, and do I need to complete the AS-T degree before I can apply for transfer to a university or college?

LMC does offer an AS-T degree in physics; however, you are not required to complete the AS-T degree in physics in order to transfer to a 4-year university or college. For additional information see <http://adegreeewithaguarantee.com/AboutTheProgram.aspx>.

Does LMC offer TAGs and TAAs?

Yes, we offer both. A TAG is a Transfer Admission Guarantee offered by 6 UC campuses. The program guarantees transfer admission to students who apply and meet specified criteria. A TAA is a Transfer Admission Agreement. In addition to UC campuses, LMC has TAAs with several California private schools, and some out-of-state colleges such as HBCUs (Historically Black Colleges & Universities). For more information, visit: www.losmedanos.edu/transfer/colleges.asp

Will there be internship/research opportunities?

Yes. Our STEM students will be able to apply for internships that are posted on the MESA website. STEM faculty also share internship/research opportunities with their STEM transfer students.

Want to know more?

Visit www.losmedanos.edu/physics for department information or www.losmedanos.edu/roadmaps/#A for curriculum details for both the 2-year and 3-year plans.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

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PHYSICS PROGRAM

ASSOCIATE DEGREE FOR TRANSFER



The Curriculum

This roadmap is provided as a SAMPLE GUIDE showing what a full-time student's schedule MAY look like in a two-year format. If you are planning to transfer to a four-year university, it should be individualized for specific majors and transfer destination universities. You must meet all prerequisite requirements prior to registering for a class.

YEAR 1

Fall Semester (16 units)

PHYS -015	Introduction to Physics (4 units)
MATH-050	Calculus & Analytic Geometry I (4 units)
CHEM-025	General College Chemistry (5 units)
ENGL-100	College Composition (3 units)

Spring Semester (14-16 units)

PHYS 040	Physics for Scientists & Engineers I (4 units)
MATH-060	Calculus and Analytic Geometry II (4 units)
CHEM-026	General College Chemistry (5 units) or GE (3 units)
ENGL 220 or 221	(3 units)

Summer Session (3 units)

GE or SPCH 110 Speech Communication (3 units)
or Internship

YEAR 2

Fall Semester (14 units)

MATH 070	Calculus & Analytic Geometry III (4 units)
PHYS 041	Physics for Scientists & Engineers II (4 units)
COMSC-044	C++ Part I (3 units)
GE	(3 units)

Spring Semester (13 units)

MATH 075	Linear Algebra (3 units)
PHYS 042	Physics for Scientists & Engineers III (4 units)
MATH 080	Differential Equations (3 units)
GE	(3 units)

Summer Session (3 units)

Internship or GE (3 units)

TOTAL UNITS FOR THIS DEGREE: 60

Why Study Physics?

If you have a passion for understanding how things work and enjoy scientific experiments and mathematics, then you should study physics. Physics is the foundation of modern science and has fascinated men and women of every age. Let it fascinate you! This major will introduce students to many areas of study including engineering, physics, chemistry, astronomy, geology, and certain specialized majors such as architecture.

Physics Careers

Physicists find employment in an astounding variety of settings after earning their degrees—including government funded labs, on Wall Street, in medical physics facilities, and high tech industries, just to name a few. Less than 5% of physics graduates at all levels are unemployed. The majority of graduates at all degree levels find employment in the private sector—using their engineering and computer science skills to do analysis, write code, and develop products, or, in the case of PhDs, doing physics research to develop new processes and products for the market. A well-prepared student will be aware of all of their many options, long before graduation, so that they can build a wide range of skills and experience that will make their job prospects virtually limitless. The time to start is now!

National Annual Salary Averages for Physics Careers

Atmospheric and Space Scientist:	\$87,030
Materials Scientist:	\$88,660
Physicist:	\$110,110
Nuclear Engineer:	\$101,600
Physics Teacher, Postsecondary:	\$80,590

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

The Transfer Path for a Physics Major

Follow the roadmap to the left to transfer to a four-year university as a physics major. This is a sample schedule for planning your classes, but should be individualized for specific majors and universities. This schedule provides an intense 2-year curriculum requiring all prerequisites before starting. It is for full-time students who can commit to 28 to 34+ hours outside of class every week for studying and assignments. It will require your commitment and excellent time management skills. We also have a 3-year curriculum that includes many of the prerequisites.

Planning for transfer is a complex process. Please consult with your LMC Counselor, professors in your major classes, and university representatives every semester. Visit www.losmedanos.edu/roadmaps/#A for important details about both roadmaps. Visit www.losmedanos.edu/physics and www.losmedanos.edu/catalog for more information about the degree and classes.

Associate in Science in Physics for Transfer

LMC's Associate in Science in Physics for Transfer (AS-T) Degree prepares students to transfer into a curriculum at a 4-year institution to pursue a baccalaureate degree in physics. To achieve the AS-T in physics from LMC, students must 1) complete the physics degree requirements; 2) fulfill CSU-General Education requirements, or IGETC; 3) complete 60 college transferrable units; and 4) obtain a minimum GPA of 2.0. Associate Degrees for Transfer also require that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is not an acceptable grade for courses in the major.



Associate Degree
for Transfer™

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CHEMISTRY PROGRAM

The Curriculum (2 years)

This roadmap is provided as a SAMPLE GUIDE showing what a full-time student's schedule MAY look like in a two-year format. If you are planning to transfer to a four-year university, it should be individualized for specific majors and transfer to universities. You must meet all prerequisite requirements prior to registering for a class.

YEAR 1

Fall Semester (15 units)

CHEM 25	General College Chemistry (5 units)
MATH 050	Calculus & Analytic Geometry I (4 units)
ENGL 100	College Composition (3 units)
GE	(3 units)

Spring Semester (16 units)

CHEM 026	General College Chemistry (5 units)
MATH 060	Calculus & Analytic Geometry II (4 units)
ENGL 220 or 221	(3 units)
PHYS 040	Physics for Scientists & Engineers I (4 units)

Summer Session (6 units)

GE or SPCH 110	Speech Communication (3 units)
GE	(3 units)

YEAR 2

Fall Session (16 units)

CHEM 028	Organic Chemistry (5 units)
PHYS 041	Physics for Scientists & Engineers II (4 units)
MATH 070	Calculus & Analytic Geometry III (4 units)
GE	(3 units)

Spring Session (15 units)

CHEM 029	Organic Chemistry (5 units)
PHYS 042	Physics for Scientists & Engineers II (4 units)
MATH 075	Linear Algebra (3 units)
MATH 080	Differential Equations (3 units)

Summer Session (3 units)

Internship or GE (optional) (3 units)

UNITS PER YEAR 34-37

TOTAL UNITS FOR THIS MAJOR 68-71

Chemistry Careers

What can I do with a major in chemistry? Here are a number of examples. Note that there are varying levels of training and education required which are specific to each option. See where chemistry can take you! Chemistry careers include: Aerospace, Agricultural, Analytical, Biochemist, Clinical, Colloidal, Cosmetic, Energy, Environmental, Food, Forensic, Fuel, Geochemist, Industrial, Inorganic, Nuclear, Organic, Pharmaceutical, Physical, Polymer, Production, Surface, Textile and Water, just to name a few!

National Annual Salary Averages for Chemistry Careers

Pharmacist:	\$119,280
Chemical Engineer:	\$95,730
Biomedical Engineer:	\$88,670
Materials Scientist:	\$88,660
Medical & Clinical Laboratory Technologist:	\$58,430
Chemist:	\$72,350
Soil & Water Conservationist:	\$61,220
Food Scientist & Technologist:	\$59,630
Soil & Plant Scientist:	\$58,990
Biological Technician:	\$40,710

The Transfer Path for a Chemistry Major

Follow the roadmap to the left to transfer to a four-year university in chemistry major. This is a sample schedule for planning your classes, but should be individualized for specific majors and universities. This schedule provides an intense 2-year curriculum requiring all prerequisites before starting. It is for full-time students who can commit to 30 to 32+ hours outside of class every week for studying and assignments. It will require your commitment and excellent time management skills. We also have a 3-year curriculum that includes many of the prerequisites.

Planning for transfer is a complex process. Please consult with your LMC Counselor, professors in your major classes, and university representatives every semester. Visit www.losmedanos.edu/roadmaps/#A for important details about both roadmaps. Visit www.losmedanos.edu/chemistry and www.losmedanos.edu/catalog for more information about the degree and classes.

Associate of Science

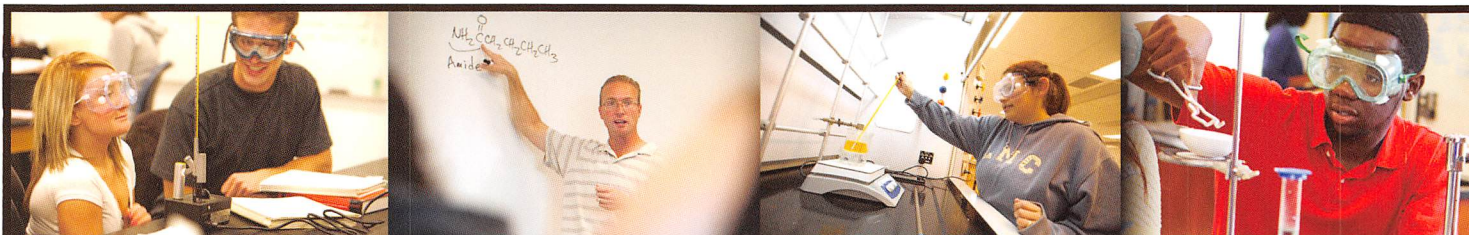
The Associate of Science Degree in Chemistry requires a minimum total of 60 degree-applicable units. This includes completion of 44 major units (see the roadmap on the left) as well as 18-19 General Education (GE) units. Consult our LMC STEM Counselor to develop your education plan for the AS degree in Chemistry.

Want to know more?

Visit www.losmedanos.edu/chemistry for department information or www.losmedanos.edu/roadmaps/#A for curriculum details for both the 2-year and 3-year plans.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.



CHEMISTRY PROGRAM



Mark Asher
Associate of Science in Chemistry '14

Early in life, I could not have imagined being a scientist. My experience with LMC's chemistry program has made it so I could not imagine life without chemistry. They have made it possible for me to find abilities and talents that I would have never known I possessed. I was able to immerse myself in my subjects, build trust and relationships with my peers, and gain newfound confidence that together gave me the tools for success!

I have been extremely fortunate in that I have found a college that can really make my dreams come true. I am in the process of completing my UC application to continue education at UC Berkeley. My ultimate goal is a career in cancer research as well as being a professor of chemistry.

How long will it take me to transfer to a university or college in my chosen field of chemistry?

You can choose from a 2-year or a 3-year roadmap of classes, depending on which classes you took in high school, and how you would like to plan your time at LMC. Our STEM Counselor will help you decide which roadmap works best for you.

Where can I transfer?

LMC chemistry students have successfully transferred to Stanford, UC Davis, Cal Poly San Luis Obispo, Cal State East Bay, UC Berkeley, San Jose State, San Francisco State, Sacramento State, Emory Riddle University, UC Merced, San Diego State and many other university and colleges.

What resources at LMC are available to help STEM transfer students succeed?

The MESA (Math, Engineering, and Science Achievement) Center offers tutoring and support in all STEM fields. Students are encouraged to join MESA, a national program for first generation college students interested in STEM fields of study. We have a STEM counselor who helps students develop an education plan for transfer. Math labs are available at the Pittsburg and Brentwood campuses. In addition, students can receive help from STEM faculty during office hours and from tutors in the Center for Academic Support.

Do I need to take the LMC Math Placement Assessment?

No. If you have passed Algebra 2, with a C or better for two semesters, you can register for Pre-Calculus with your high school transcripts.

Do I need to take CSU General Education courses or IGETC courses in order to transfer to a 4-year college or university with an emphasis in chemistry?

No. Our STEM Counselor will help you sort out the classes needed for transfer in chemistry.

Does LMC offer TAGs and TAAs?

Yes, we offer both. A TAG is a Transfer Admission Guarantee offered by 6 UC campuses. The program guarantees transfer admission to students who apply and meet specified criteria. A TAA is a Transfer Admission Agreement. In addition to UC campuses, LMC has TAAs with several California private schools, and some out-of-state colleges such as HBCUs (Historically Black Colleges & Universities). For more information, visit:

www.losmedanos.edu/transfer/colleges.asp

What types of chemistry majors will I be prepared for when I transfer from LMC to a university or college?

Chemistry, chemical engineering, biochemistry, pre-med, chemical physics, environmental chemistry.

Will there be internship opportunities?

Yes, our STEM students will be able to apply for internships that are posted on the MESA website, and we also email all STEM transfer students with internship information and STEM opportunities.

Do I need to complete the AS degree in Chemistry before I can apply for transfer to a university or college?

No. Most students do not complete an AS degree before transferring. An Associate of Science Transfer will be available soon, which may provide some advantages for students transferring to CSU campuses. Meet with our STEM counselor for more detailed information.

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BIOLOGICAL SCIENCE

The Curriculum

This roadmap is provided as a SAMPLE GUIDE showing what a full-time student's schedule MAY look like in a two-year format. If you are planning to transfer to a four-year university, it should be individualized for specific majors and transfer to universities. You must meet all prerequisite requirements prior to registering for these classes.

YEAR 1 40 units

Fall Semester (17 units)

BIOSC 020	Principles of Biology: Cellular Processes, or BIOSC 021 Principles of Biology: Organismal (5 units)
CHEM 025	General College Chemistry (5 units)
MATH 050	Calculus and Analytic Geometry I (4 units)
ENGL 100	College Composition (3 units)

Spring Semester (18-20 units)

BIOSC 021	Principals of Biology: Organismal, or BIOSC 020 Principles of Biology: Cellular Processes (5 units)
CHEM 026	General College Chemistry (5 units)
MATH 060	Calculus and Analytic Geometry II (4 units)
GE	(3 units)

Summer Session (6 units)

GE or SPCH 110	Speech Communications, or Internship (3 units)
ENGL 220 or ENGL 221	(3 units)

YEAR 2 27-34 units

Fall Semester (15-17.5 units) MATH 70

CHEM 028	Organic Chemistry (5 units)
PHYS 035	General College Physics I, + PHYS 037 General College Physics Calculus Suppl. I (4-4.5 units)
MATH 70	Calculus & Analytic Geometry III, or GE (3-4 units)
GE	(3 units)

Spring Semester (12-16.5 units)

CHEM-029	Organic Chemistry (5 units)
PHYS-036	General College Physics II, + 038 General College Physics Calculus Supplement (4-4.5 units)
GE/Electives	(3 units)
GE	(3 units)

Summer Session

Internship

TOTAL UNITS FOR THE DEGREE 60
TOTAL UNITS TO TRANSFER 67-74

Biology Careers

A major in the biological sciences prepares students to enter numerous exciting careers. Some may enter the private sector and work for biotechnology or pharmaceutical companies conducting research, manufacturing life-saving medicines, marketing innovative products, or presenting discoveries to diverse audiences. Others may work for government agencies, such as the USDA, to help us conserve our valuable resources, or use their biotechnology knowledge to solve crimes as forensics specialists in the FBI. Many biology majors will enter the medical and public health fields and become geneticists, clinical lab scientists, and physicians. Biologists may share their love for this subject with others by becoming teachers or working for museums, aquariums, or educational non-profit agencies. Educating the public on the importance of new discoveries is always an important job, and biology majors who enjoy communicating science to the public may also work in journalism, television and publishing. Scientific training also prepares students for careers in business, law, and consulting.

National Annual Salary Averages for Biology Careers

Physician Assistant:	\$92,970
Genetics Counselor:	\$63,590
Medical and Clinical Laboratory Technologist:	\$58,430
Hydrologist:	\$75,710
Biological Science Teacher, Postsecondary:	\$75,000
Bioinformatics Scientist:	\$72,720

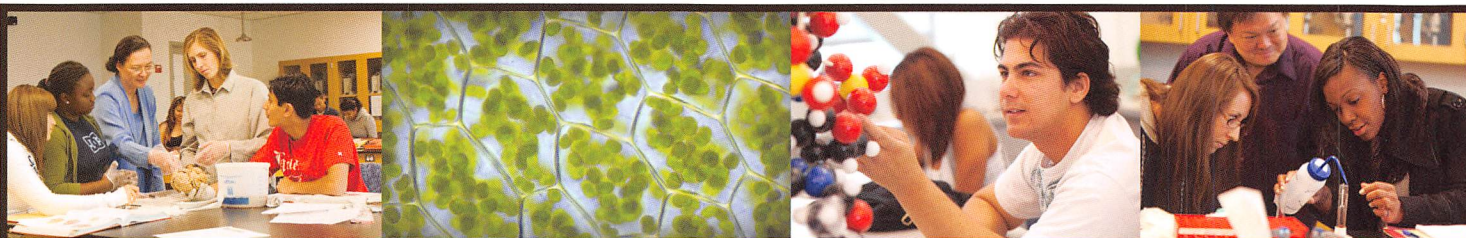
Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

The Transfer Path for a Biology Major

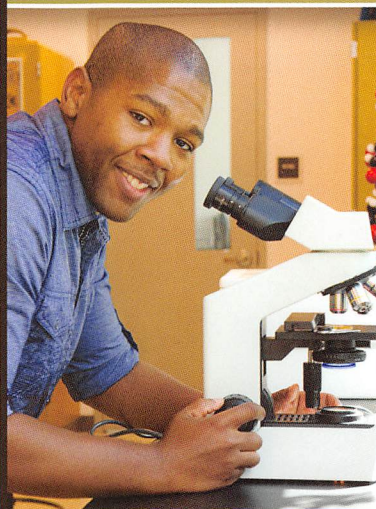
Follow the roadmap to the left to transfer to a four-year university in a biology major. Keep in mind this is a sample schedule. Use this roadmap for related majors and careers such as biochemistry, pre-medical, pre-pharmacy, pre-veterinary, and pre-optometry. This schedule provides an intense 2-year curriculum requiring all prerequisites before starting. We also have a 3-year curriculum that includes many of the prerequisites. Visit www.losmedanos.edu/roadmaps/#A for important details about both roadmaps. Visit www.losmedanos.edu/biology and www.losmedanos.edu/catalog for more information about the degree and classes.

Associate of Science Degree in Biology

The Associate of Science Degree in Biological Science requires 18 units of select coursework plus General Education courses for a total of 60 units. Consult the LMC Catalog for specific requirements. Consult our Los Medanos College STEM Counselor to develop your education plan.



BIOLOGICAL SCIENCE



Callid Banks

Associate of Science in Biological
Sciences and Mathematics '13
LMC Instructional Assistant,
Biological Sciences
Transferred to UC Davis

Studying biology at LMC was an amazing experience. The professors and faculty are very passionate and the combination of unique personalities along with the energy and enthusiasm make the learning experience all the more enjoyable. They really go above and beyond to facilitate student success. In addition, there are great support services like peer tutoring providing one-on-one assistance. Often I would grab some friends and get together in a group to study.

I transferred to UC Davis in Fall 2013. While at LMC, I developed deep interest for genetics and that drive has taken me where I am today. Although I'm busy with studies at UC Davis, I also am an instructional assistant at LMC. It has been very fulfilling working with the students and faculty of the Biology Department.

How long will it take me to transfer to a university or college in my chosen field?

You can choose from a 2-year or a 3-year roadmap of classes, depending on which classes you took in high school, and how you would like to plan your time at LMC. Our STEM Counselor will help you decide which roadmap works best for you.

Do I need to complete the AS degree in Biology before I can apply for transfer to a university or college?

No. You are not required to complete the AS degree in Biology in order to transfer to a 4-year university or college.

What is the difference between the 2-year and 3-year roadmap?

The 2-year roadmap provides an intense 2-year curriculum requiring all prerequisites before starting. The 3-year roadmap includes many of the prerequisites.

How much time will I need besides class time to complete this program?

This plan is for full-time students who can study 30 to 36+ hours every week outside of class. For successful completion, it will require your commitment and excellent time management skills. Planning for transfer is a complex process. Please consult with your LMC Counselor, professors in your major classes, and university representatives every semester.

What resources at LMC are available to help STEM transfer students succeed?

The MESA (Math, Engineering, and Science Achievement) Center offers tutoring and support in all STEM fields. Students are encouraged to join MESA, a national program for first generation college students interested in STEM fields of study. We have a STEM counselor who helps students develop an education plan for transfer. Math labs are available at the Pittsburg and Brentwood campuses. In addition, students can receive help from STEM faculty during office hours and from tutors in the Center for Academic Support.

Do I need to take the LMC Math Placement Assessment to register for classes?

No. If you have passed Algebra 2, with a C or better for two semesters, you can register for Pre-Calculus with your high school transcripts.

Do I need to take CSU General Education courses or IGETC courses in order to transfer to a 4-year college or university with an emphasis in biology?

IGETC is not required, but biology majors usually do complete some General Education courses. Our STEM counselor will help you sort out the classes needed.

Do you offer TAGs and TAAs?

Yes, we offer both. A TAG is a Transfer Admission Guarantee offered by 6 UC campuses. The program guarantees transfer admission to students who apply and meet specified criteria. A TAA is a Transfer Admission Agreement. In addition to UC campuses, LMC has TAAs with several California private schools, and some out-of-state colleges such as HBCUs (Historically Black Colleges & Universities). For more information, visit: www.losmedanos.edu/transfer/colleges.asp

Will there be internship/research opportunities?

Yes. Our STEM students can apply for internships posted on our MESA website. STEM faculty also share internship/research opportunities with their STEM transfer students, and we email all STEM transfer students internship information and STEM opportunities. We also have plans to offer summer research for credit, as well as provide students the opportunity to conduct research on campus through their STEM courses.

Where can I transfer?

Los Medanos College biology students can transfer to many campuses such as UC Davis, Cal Poly San Luis Obispo, Cal State East Bay, UC Berkeley, San Jose State, San Francisco State, Sacramento State, UC Merced, San Diego State, UC Santa Barbara, UC Irvine, UC Santa Cruz, and many other public or private universities and colleges.

Want to know more?

Visit www.losmedanos.edu/biology for department information or www.losmedanos.edu/roadmaps/#A for curriculum details for both the 2-year and 3-year plans.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

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LICENSED VOCATIONAL NURSING PROGRAM

The Curriculum

Prerequisite Courses (21.5 units)

ENGL-90	Integrated Reading & Writing	(5 units)
MATH-025	Elementary Algebra	(5 units)
BIOSC-030	Intro to Anatomy & Physiology	(4 units)
COMSC-049	Computer Literacy*	(1.5 units)
NUTRI-055	Intro to Nutrition	(3 units)
BUS-086	Medical Terminology	(3 units)

*There may be a slight change in this requirement. Consult with a counselor to for updates.

The curriculum below includes the major coursework for the LVN certificate. These classes must be taken in this sequence. There is no exception to this rule. Only those students who are formally admitted to the program may enroll in registered nursing courses.

First Semester (14 units)

VONUR-004	Introduction to Pharmacology	(1 unit)
VONUR-005	Fundamentals of Vocational Nursing	(6 units)
VONUR-006	Fundamentals Clinical	(6 units)
VONUR-007	LVN Role Relationships	(1 unit)

Second Semester (12 units)

VONUR-010	Intermediate Pharmacology	(1 unit)
VONUR-011	Medical Surgical Nursing	(5 units)
VONUR-012	Med-Surg Clinical	(6 units)

Third Semester (13 units)

VONUR-015	Advanced Pharmacology	(1 unit)
VONUR-016	Family Centered Nursing	(5 units)
VONUR-017	Family Centered Clinical	(6 units)
VONUR-018	Professional Issues	(1 unit)

TOTAL UNITS FOR THE MAJOR. 39

Careers for Licensed Vocational Nurses (LVN):

Nursing is an interesting and gratifying career with lots of clinical opportunities. If you want to make a difference in people's lives, nursing is a career you should consider.

To be a LVN, you will learn to have good communication skills, be a critical thinker, be decisive, and gain an extensive knowledge of science and technology. Opportunities are available throughout the nation, allowing graduates to relocate almost anywhere. Placements include: extended care facilities, nursing homes, hospitals, clinics, physicians' offices, private home care, convalescent homes, out-patient clinics, hospice and ambulatory care centers.

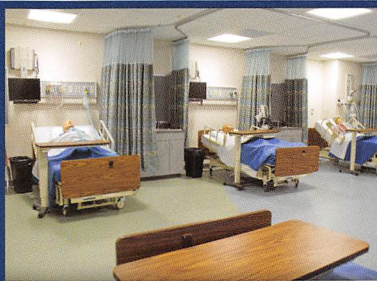
The LVN program at LMC is designed to prepare qualified graduates to practice nursing in entry-level positions. The focus is on learning healthcare needs of all ages from infants to the elderly in many settings including: medical, surgical, obstetric, pediatric and psychiatric. In addition to classroom theory, students will refine their clinical skills in our state-of-the-art campus laboratories. Clinical experience is provided in a variety of medical centers and health care agencies in the Bay Area. LMC also offers a career ladder for LVNs to become RNs. Please consult the Nursing Applicant Handbook for more information on all nursing programs.

Entry-Level LVN Salaries in California:

Registered Nurse: \$36,400-\$69,800/annually (depending on location and shift differential)
Information gathered from onetonline.org, sponsored by the Department of Labor, 2014

Possible next steps after completing LMC's LVN Program:

Successful students may be eligible to enter the second year of the Registered Nursing (RN) Program and, in one year, complete the RN degree. Only those students formally admitted to the LVN to RN transition may enroll in registered nursing courses. Students may, however, enroll in those non-nursing courses designated as part of the registered nursing curriculum, while awaiting admission to the program. Completion of the LVN to RN program at LMC qualifies students to take the State Board Examination (NCLEX-RN) for licensure as a Registered Nurse. There are also many programs available where an LVN can become a BSN or MSN. We are happy to help you explore the possibilities.



LICENSED VOCATIONAL NURSING PROGRAM



Esper Hagberg

LVN graduate
LVN to RN graduate
Currently attending Grand Canyon
University's online BSN Program

"LMC's Licensed Vocational Nursing Program gave me the encouragement and confidence to go beyond the program, and to strive to attain a bachelor's and master's degree. The faculty was wonderful; they had big dreams for us. And I got amazing training. LMC graduates have a very positive reputation out there. I heard that a lot in job interviews.

The best thing about LMC's LVN Program is that it didn't cost me an arm and a leg to get my LVN and RN.

Now that I'm in a bachelor's program, I think I am very well prepared. While at LMC, I had to do a lot of APA-style papers, case studies and group presentations – that experience is helping me succeed with my upper-division coursework.

I began working at Kaiser Permanente in Antioch and Aspen Surgery in Walnut Creek when I became a LVN. Now as an RN, I still work for the same company, and look forward to earning my BSN."

Why should I choose LMC's Licensed Vocational Nursing (LVN) Program?

The Los Medanos College LVN Program has a reputation of being one of the best nursing schools in Northern California. Our nursing students consistently have a high pass rate on the LVN State Board Exams. The college has excellent faculty and staff who are committed to promoting student success. Most of our graduates are placed in local health care facilities where feedback from their employers has been positive and supportive of the college and its nursing program.

How long is the LVN Program?

The LVN Program is a full-time, three-semester program, consisting of 39 units. Please read the LVN Applicant Handbook for specific application and start dates.

How do I apply for the LVN Program?

Obtain a LVN Applicant Handbook which can be purchased from the LMC Bookstore or you can access it online at www.losmedanos.edu/nursing/handbook.asp.

The handbook includes:

- a list of prerequisite courses to be completed before you apply to the LVN Program
- the application(s) to the LVN Program
- required materials to include with your application
- dates when applications are accepted

It is the policy of the Contra Costa Community College District and Los Medanos College to provide an educational and employment environment in which no person shall be unlawfully subject to discrimination on the basis of ethnic group identification, national origin, religion, age, sex, sexual orientation, gender, race, color, medical condition, ancestry, marital status or physical or mental disability or based on association with a person or group with one or more of these actual or perceived characteristics. This holds true for all students who are interested in participating in educational programs and/or extracurricular activities. Unlawful harassment, discrimination or denial of access of any employee/student with regard to ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability is strictly prohibited. The lack of English language skills will not be a barrier to admission and participation in the college's education programs. Inquiries regarding compliance and/or grievance procedures and requests for the elevation and addition of sports may be directed to the Los Medanos College Title IX Officer and Section 504/ADA Coordinator: Gail Newman, Senior Dean, Student Services, gnewman@losmedanos.edu, (925) 473-7421

I'm interested, what should I do now?

It is recommended that potential nursing students register for the Nursing Career Seminar (RNURS-001). Also read the LVN Applicant Handbook (available for purchase at the bookstore or online at www.losmedanos.edu/nursing/handbook/handbook).

After you have completely read the handbook, make an appointment with an LMC counselor for help in selecting courses. Call for an appointment at (925) 473-7449 and ask for an appointment with LaVora Mathis-Payne.

Want to know more?

Visit www.losmedanos.edu/nursing or contact the Nursing Office at 925-473-7756.

Want to become an LMC student?

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WELDING TECHNOLOGY PROGRAM



The Curriculum

This list is provided as a sample guide showing what a full-time student's schedule may look like. There is no guarantee that all classes will be offered each semester or that space will be available.

First Summer Semester (2 units)

WELD 015 Basic Oxyacetylene Welding (2 units)

First Semester (12 units)

WELD 010 Basic Arc Welding Theory (3 units)

WELD 011 Basic Shielded Metal Arc Welding Practice (2 units)

WELD 020 Intermediate Shielded Metal Arc Welding (2 units)

*ENGL 090 Integrated Reading, Writing and Critical Thinking
. (5 units)

Second Semester (11 units)

WELD 021 Advanced Shielded Metal Arc Welding Practice .
. (2 units)

WELD 031 TIG Welding Practice (2 units)

WELD 040 TIG, MIG and FCA Welding Theory . . . (3 units)

*MATH 012 Prealgebra (4 units)

Second Summer Semester (1 unit)

WELD 016 Advanced Oxyacetylene Welding (1 unit)

Third Semester (6.5 - 9 units)

WELD 033 MIG Welding Practice (2 units)

WELD 035 Blueprint Reading (3 units)

*COMPSC 040 Introduction to Computers or

COMPSC 049 Computer Literacy (1.5 - 4 units)

Fourth Summer Semester (4 units)

WELD 041 Pipe Welding Practice (2 units)

WELD 043 Flux-Core Arc Welding Practice (2 units)

TOTAL UNITS FOR THIS CERTIFICATE 33.5 - 39

*These general education requirements may be satisfied by passing an assessment test, or may vary as a result of an assessment test.

Careers in Welding:

Welders can work in a variety of places including an oil platform in the ocean, shipyards, power plants, refineries, manufacturing plants or operating their own welding shop. LMC's Welding Technology program prepares students for great careers with a comprehensive program with up-to-date equipment in our hands-on lab. Successful completion of the program provides sufficient training for entry level into the field of production type welding.

Our program offers instruction in the principles and practices of welding processes. Learn different types of welding such as arc, oxyacetylene, TIG, MIG, and FCA welding, and learn how to read blueprints. Students have access to the latest instructional and practical experiences in a spacious, modern shop facility.

Welding Salary Averages in California:

Welders, Cutters and Welder Fitters: \$10.98-\$30.79/hour

Welding, Soldering, and Brazing Machine Setters, Operators and Tenders:

\$10.79-\$27.19/hour

Information gathered from onetonline.org which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Welding Technology, complete 33.5-39 units of coursework listed in the left column (26 units of major courses and 7.5-13 units of GE courses).

Associate of Science Degree

For the Associate of Science Degree in Welding Technology, a total of 60 degree-applicable units are required. Complete major coursework listed in the left column as well as the General Education requirements and electives.

Consult the LMC Catalog for General Education Requirements and elective options at www.losmedanos.edu/catalog.

Want to know more?

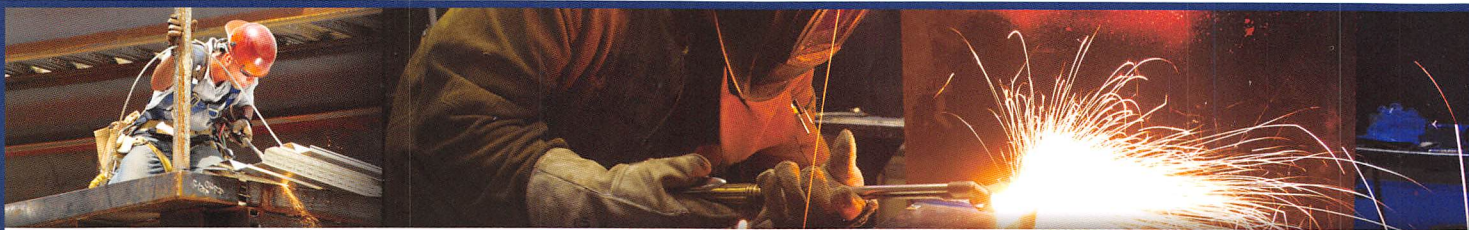
Visit www.losmedanos.edu/welding or contact

Joseph Meyer at jmeyer@losmedanos.edu, 925-473-7740.

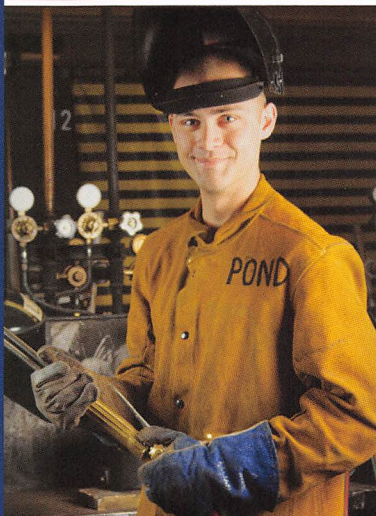
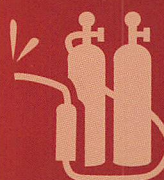
Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

Consult with a Los Medanos College counselor to develop your education plan.



WELDING TECHNOLOGY PROGRAM



James Pond
– Welding student

"I am really enjoying learning to weld at LMC. The welding lab is filled with great equipment, providing a state-of-the-art, hands-on experience. The instructors are very good and have been in the trade for many years. The LMC Welding Program gets me excited about my career, and enthusiastic to get out and get a job!"

Why become a welder?

Opportunity! Welders are in high demand in the Bay Area. You can work for yourself, in your own business, or work in a team in the construction, manufacturing or utilities industries. With additional training, experienced welders can advance to become welding inspectors and technicians.

What types of jobs do graduates of LMC's welding programs obtain?

Our graduates have various career choices. They include careers in the fabrication of buildings and bridges; petrochemical maintenance, repair and retrofitting; railroad maintenance; underwater welding, shipyard welding; construction; automobile body repair; and more. Organizations such as USS-POSCO, United Spiral Pipe LLC, Bay Ship and Yacht, and local construction unions recruit our graduates because of their highly desired knowledge and skills.

I'm new to welding - what classes do I start with?

The best place to start is Basic Arc Welding Theory (WELD 10) and Basic Arc Welding Practice (WELD 11). They will give you an opportunity to learn all about welding and how it is done.

How long does it take to complete the Welding Certificate of Achievement Program?

You can determine your own pace for completing the certificate or the degree. The Certificate of Achievement can be completed in 2 years, including summers.

What if I'm only available in the day or evening?

The majority of the courses in LMC's Welding Program are offered during the day, evening and weekends. This allows the flexibility for working students to attend LMC at a time that fits into their schedule.

How much does the program cost?

Current enrollment fees for residents and non-California residents are published on the college website at www.losmedanos.edu/admissions/ fees. Textbooks for each course will need to be purchased. The LMC Bookstore will stock books for each course immediately before each course begins. All welding students are required to have their own personal protective safety equipment that will be discussed the first day of each lab - average safety gear expense: \$300 to \$400.

Does the college provide financial assistance?

There are many forms of financial aid available to students attending LMC. Grants, loans and scholarships top the list of options. Our Financial Aid Office provides information and support to help you navigate through the application process. The Scholarship Office is located in the Financial Aid Office for convenient, centralized access with our financial aid experts. www.losmedanos.edu/financialaid

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PROCESS TECHNOLOGY PROGRAM

The Curriculum

Suggested courses for each semester for obtaining a certificate of achievement. An associate of science degree may require different courses each semester and normally takes four to five semesters. There is no guarantee that all classes will be offered each semester or that space will be available.

Prerequisites:

PTEC 4 Career Exploration (2 units)

This is an optional online, "bridge" course that helps prospective students to determine if process technology is the correct career choice.

First Semester (13 units)

PTEC 007	Industrial Technology Career Skills	(1 unit)
PTEC 010	Introduction to Process Technology	(3 units)
PTEC 012	Petrochemical Safety, Health and Environment	(1 unit)
MATH 030	Intermediate Algebra	(4 units)
PHYS 015	Introduction to Physics	(4 units)

Second Semester (13 units)

PTEC 024	Process Instrumentation	(3 units)
PTEC 025	Process Technology I Equipment	(3 units)
PTEC 035	Process Technology II Systems	(3 units)
CHEM 006	Inorganic Chemistry	(4 units)
or		
CHEM 007	Organic Chemistry	(4 units)

Third Semester (9 units)

PTEC 027	Applied Instrumentation	(1 unit)
PTEC 044	Petrochemical Simulation Lab	(1 unit)
PTEC 045	Process Technology III Operations	(3 units)
PTEC 048	Process Troubleshooting	(3 units)
PTEC 060	Industrial Technology Career Prep	(1 unit)

TOTAL FOR THIS CERTIFICATE 35 units

Process Technology Careers

The Process Technology (PTEC) Program was developed at Los Medanos College in response to requests from local chemical and refining industries, and provides students with training for high-skill, high-wage jobs needed in the manufacturing industry.

Process technicians are skilled plant operators who work for chemical, refining, oil and gas production/refining, power generation, water, waste management, food manufacturing and related manufacturing companies. The process technicians who run these plants work inside with state-of-the-art computer control systems, and work outside taking process samples, monitoring the equipment, and solving problems in a team environment.

Process technicians monitor and control mechanical, physical and chemical changes throughout many processes, turning out a final product made from raw materials. Process technicians monitor and control equipment used to produce gasoline, medical oxygen, pharmaceuticals, plastics, power, clean water and many other products that make people's lives better.

PTEC Salary Averages in California:

Petroleum Pump System Operators, Refinery Operators, and Gaugers:
\$25.19-\$44.57/hour

Chemical Equipment Operators and Tenders: \$13.12-\$34.50/hour

Information gathered from onetonline.org which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Process Technology, complete 35 units of coursework listed in the left column.

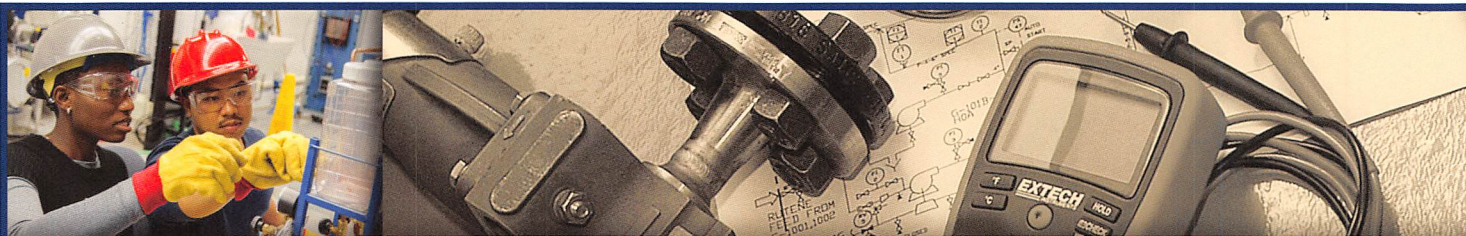
MATH 30 Intermediate Algebra is required but some students need to take MATH 25 or MATH 12 prior to taking MATH 30. Placement tests are offered by the Assessment Center to determine the level of competency in math and English. Students are advised, but not required, to take English 90- Integrated Reading, Writing and Critical Thinking.

Associate of Science Degree

A total of 60 degree-applicable units are required for the associate degree including 35 major units (see left column), as well as the General Education (GE) requirements and electives. Already included in the certificate requirements, MATH 30 also satisfies GE math requirements and PHYSICS 15 also satisfies GE physical science requirements for the AS degree. To complete the AS degree, consult the LMC Catalog for General Education Requirements at www.losmedanos.edu/catalog.

Consult with a Los Medanos College counselor to develop your education plan.

Rev. 10/06/2014



PROCESS TECHNOLOGY PROGRAM



Tamralyn Thompson
Process Technology student

"As someone who never finished high school, I was somewhat intimidated to pursue a degree in Process Technology, and apprehensive towards physics, chemistry and algebra. With helpful instructors, as well as the science and math labs, I achieved good grades in the very subjects I was worried about. Not only have I gained a vast knowledge of the technical side of Process Technology, I have also sharpened my soft skills with classes like Public Speaking. I now possess the qualifications that employers are currently seeking."

How long does it take to complete the program?

You can determine your own pace for completing the certificate or the degree. The Certificate of Achievement can be completed in 3-4 semesters. The AS Degree can be completed in 2 to 2 1/2 years.

Are the PTEC courses transferable to a 4-year university?

No, the PTEC courses are non-transferable, occupational courses. General Education courses in the program such as math, chemistry and physics are transferrable..

What if I already have an AS/AA degree or a BA degree, can I automatically get an AS Degree in PTEC?

If you already have an AS/AA or a higher degree, you may choose to only complete a Certificate of Achievement in PTEC at LMC.

If you choose the path of an LMC AS degree in PTEC, your previous degree will need to be evaluated by LMC since degree requirements are not the same between colleges. Begin by asking your previous institution to mail your "Official Transcript" to the LMC Office of Admissions and Records. This office will evaluate your transcript for equivalency. This will take a few weeks, so plan early! Next, make an appointment to meet an LMC counselor to determine if you need to take some additional courses at LMC to get "our" AS degree. Finally, take the "missing" courses to complete the LMC AS degree requirements.

How does the LMC PTEC program compare with other PTEC programs?

We are the only PTEC program in Northern California. The curriculum adopted by Los Medanos College was developed by the well-known Center for the Advancement for Process Technology (CAPT) in Texas. This curriculum was adapted to the local industry needs in California, in consultation with the PTEC program advisory board. The program advisory board is very active and is comprised of seasoned and senior industry professionals.

We support employment through job fairs, job postings and industry referral. The PTEC program has close ties with the local industry. Graduates from the PTEC program will be job-ready for positions in

the petrochemical industry, food manufacturing, water sanitation, waste disposal and other industries that employ plant operators.

Our hands-on lab teaches essential skills required by industry. State-of-the-art simulation software is used in the PTEC computer lab. Site visits and lab classes are coordinated by PTEC faculty in collaboration with local industry. All PTEC faculty are experienced in the industry.

How much does the program cost?

Current enrollment fees for residents and non-California residents are published on the college website at www.losmedanos.edu/admissions/fees. Textbooks for each course will need to be purchased. The LMC Bookstore will stock books for each course immediately before each course begins. Scholarships and financial aid are available for those in financial need who qualify.

Want to know more?

Visit www.losmedanos.edu/ptec or email Department Chair William Cruz, wacruz@losmedanos.edu.

LMC counselors are also available for assistance in identifying general aptitude and interests for PTEC, as well as to determine the General Education Requirements to complete the Associate Degree in Process Technology.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more. Consult with a Los Medanos College counselor to develop your education plan.

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ELECTRICAL & INSTRUMENTATION TECHNOLOGY PROGRAM

The Curriculum

Common required courses for electrical and instrumentation technicians for the first three semesters:

First Semester (13 units)

ETEC 10	Direct Current Circuits	(4 units)
ETEC 12	Alternating Current Circuits	(4 units)
MATH 25	Elementary Algebra	(5 units)

Second Semester (11 units)

ETEC 20	Electric Motor Control	(3 units)
ETEC 22	Semiconductor Devices	(2 units)
ETEC 24	Digital Devices	(2 units)
PHYS 15	Introduction to Physics	(4 units)

Third Semester (12 units)

ETEC 30	Programmable Logic Controllers	(4 units)
ETEC 32	Instrumentation Process Measurement	(3 units)
ETEC 34	Instrument Calibration	(1 unit)
CHEM 6	Intro to Inorganic & Physical Chemistry	(4 units)
	(Instrumentation Specialization only)	

Fourth Semester: Electrical Specialization (10 units)

ETEC 40	National Electrical Code	(3 units)
ETEC 42	Wiring Methods and Code Application	(1 unit)
ETEC 44	Power Distribution & Transformers	(3 units)
ETEC 46	DC & AC Motors & Generators	(3 units)
TOTAL UNITS FOR ELECTRICAL CERTIFICATE		42

Fourth Semester: Instrumentation Specialization (9 units)

ETEC 50	Instrumentation Process Control	(3 units)
ETEC 52	Applied Process Control	(1 unit)
ETEC 56	Code for Instrument Application	(1 unit)
ETEC 58	Analytical Instrumentation	(2 units)
ETEC 59	Sys Integ & Troubleshooting	(2 units)
TOTAL UNITS FOR INSTRUMENTATION CERTIFICATE		45

Careers in Electrical/Instrumentation Technology:

LMC is in a unique position to offer an outstanding, up-to-date curriculum that has been designed by industry for industry. No other college in this area provides similar education and training needed to obtain these high-skills, high-wage and high-demand jobs. The ETEC program enables students to graduate with a certificate of achievement in four semesters (two years). There are two areas of specialization: electrical technician or instrumentation technician. The electrical technician specialization is designed to train electricians to maintain complex electrical automation systems used in the manufacturing and power generation industry. The instrumentation technician specialization is designed to train instrumentation technicians to maintain the process measurement and control systems used in refineries, chemical plants, biotech plants, pharmaceutical plants, water and waste treatment plants.

ETEC Salary Averages in California:

Electrical and Electronic Engineering Technicians: \$17.28-\$44.40/hour
Electrical and Electronic Repairer, Commercial and Industrial Equipment: \$16.30-\$39.06/hour

Electricians: \$17.50-\$44.88/hour

Information gathered from onetonline.org which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Electrical/Instrumentation Technology, complete the coursework listed to the left.

Associate of Science Degree

For the Associate of Science Degree in Electrical/Instrumentation Technology, a total of 60 degree-applicable units are required. Complete the coursework listed to the left as well as the General Education Requirement and electives. Courses in the first three semesters are common to both areas of specialization. In the fourth semester, the courses for each specialization vary, with the electrical technicians concentrating on the skills needed for electrical maintenance while the instrumentation technicians concentrate on the measurement and control of processes. To complete the AS degree, consult the LMC Catalog for General Education Requirements and elective options at www.losmedanos.edu/catalog.

Program Entry Skills:

To successfully begin the program, we recommend that you have the following level of knowledge in math and English:

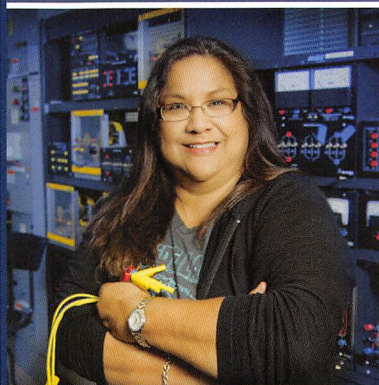
Math 12 Pre-Algebra (4 units)

English 90 Integrated Reading, Writing and Critical Thinking (5 units)

Take the assessment test to determine whether your math and English skills are at this level or higher, prior to enrolling in the ETEC program. For assessment testing information, visit www.losmedanos.edu/assessment.



ELECTRICAL & INSTRUMENTATION TECHNOLOGY PROGRAM



Patricia Coad

*Certificate of Achievement in
Instrumentation Technology*

"After a 25-year absence from college, returning to school was a daunting experience. However, my classmates were very supportive and my instructors have taught me the basic knowledge and skills to obtain a rewarding career with major industries where I live. They provided insightful, real work experiences, as well as encouragement to those of us re-training back into the workforce and to those who are just starting out."

"These skills can take you anywhere in the world, as the demand for industrial electricians and instrumentation technicians is very high and in many industries."

What do electrical technicians do in contrast to instrumentation technicians?

Electrical technicians maintain the electrical equipment that is used to power the automated processes in industry. This includes the equipment that furnishes power to the equipment as well as the controls that are used for positioning and speed control. This could involve voltages from several thousand volts down to the smaller voltages used for control.

Instrumentation technicians are responsible for maintaining process measurement and control circuits. This includes calibration of devices that measure liquid level in tanks, pressure in tanks, rate of flow in pipes, and temperature of processes, as well as the analytical properties of the product and environmental releases. These measured quantities are used in control systems to accurately control the process.

What sets the LMC ETEC Program apart from other similar programs?

Industry connections: The program is fortunate to have many large industrial firms near our campus. It was created in response to local industry demand and industry has helped shape the program. These industry partners include oil refineries, steel processors, chemical manufacturers, power production and distribution companies, and local water and waste treatment plants.

Student success: although our program is rigorous and challenging, most of our graduates have found local employment at major industries right here in Contra Costa County. Employers report a high degree of satisfaction with these graduates.

Location: Our program is the only comprehensive program of its kind in California.

What types of industry connections does the LMC ETEC Program have?

The ETEC Program has a rich history of industry connections. Many of our instructors come from local industry. Our industry partners provide support for our classrooms and labs, and cutting-edge equipment for state-of-the-art instruction. Additionally they provide field trips, guest speakers, internships and guidance through their participation on our ETEC advisory board. Most of our instructors are actively working in the field.

Our partners are eagerly waiting for the next wave of graduates. Many of our students obtain paid internships with local industry. This relationship allows both parties to see if it is a good match. Most of our graduates find employment within a few months of graduation.

Are the courses in the ETEC program approved by the Division of Apprenticeship Standards?

Yes, all of the ETEC courses in our program have been approved by the Division of Apprenticeship Standards (DAS) to qualify you as an electrical trainee in the State of California. By registering with the DAS and enrolling in one of our ETEC courses, you are qualified to work for an electrical contractor as an electrical trainee. The State of California requires electrical workers to be certified by taking a certification test. In order to take this test, you need 4000 hours of work experience. By working as an electrical trainee, you can accumulate the hours you need to take the test.

Want to know more?

Visit www.losmedanos.edu/etec or contact Cecil Nasworthy at cnasworthy@losmedanos.edu, 925-473-7726.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

Consult with a LMC counselor to develop your education plan.

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ADMINISTRATION OF JUSTICE PROGRAM



Vanessa Espinoza

Administration of Justice student

My experience in LMC's Administration of Justice program has been awe-inspiring! The instructors work or have worked in the field of law enforcement, offering firsthand knowledge. They are humble people and are always filling you with information about the different branches of law enforcement.

They don't solely teach out of a book, but encourage you to go on fieldtrips to view a mock jury trial or to explore San Quentin State Prison. Everything is specifically designed to always keep one motivated to follow their dreams.

I aspire to be a forensic psychologist: someone who counsels mentally ill inmates, consults with lawyers, and psychologically analyzes criminals to determine motivations for criminal behavior.

What certificates and degrees are offered by the Administration of Justice Dept.?

Three certificates of achievement are offered: Administration of Justice, Criminal Investigations, and Criminal Law. One degree is offered: the Associate in Science for Transfer degree (AST).

Can I transfer with my associate's degree and continue with my bachelor's degree?

The Administration of Justice Associate in Science for Transfer degree is specifically designed to transfer seamlessly to the California State University system's bachelor degree programs in administration of justice/criminal justice. Los Medanos College is an accredited college, and courses may be transferable to other institutions of higher education.

Why attend LMC's administration of justice classes?

For students considering a career in the administration of justice, LMC's Administration of Justice programs offer a great foundation. You'll learn from our instructors, many of whom are current or retired criminal justice practitioners. They bring real world experience into the classroom while focusing on the theories and philosophies of the administration of justice system to include community policing, criminal investigations, criminal law, community corrections and social justice.

How much does the program cost?

Current enrollment fees for residents and non-California residents are published on the college website at www.losmedanos.edu/admissions/ fees. Textbooks for each course will need to be purchased and costs can vary. The LMC Bookstore will stock books for each course immediately before each course begins.

Are there criminal justice jobs that don't require you to be a sworn peace officer?

The traditional positions of police officer, deputy sheriff, highway patrol trooper, detective, FBI, Secret Service, and Drug Enforcement Administration special agent,

criminal investigator, probation officer, corrections officer, and parole agent normally require peace officer standing.

There are positions within the criminal justice profession that do not require peace officer status: deputy district attorney, assistant city attorney, assistant U.S. attorney, public defender, 911 emergency dispatcher, federal and state drug diversion investigator, intelligence specialist, police analyst, forensic technician, crime scene analyst, deputy coroner-investigator, child protective services investigator, private investigators, private and corporate security, bail enforcement agent, private corporations' juvenile advisors, probation and corrections officers, insurance investigators, sheriff's support specialists, police assistants and evidence custodians.

Can I be granted college credit for criminal justice training while in the military?

Students may submit criminal justice training certificates for case-by-case review. Certificates need to be for actual instruction and not just attendance at a law enforcement conference.

Can I receive college credit for work completed at a police academy?

Students may submit transcripts earned at accredited police and correction academies for review for credit.

Want to know more?

Visit www.losmedanos.edu/aj/ or email Department Chair Anthony Hailey at ahailey@losmedanos.edu.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

Consult with a Los Medanos College counselor to develop your education plan.

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ADMINISTRATION OF JUSTICE ASSOCIATE DEGREE FOR TRANSFER

The Curriculum

This curriculum includes only the major coursework for the Associate Degree for Transfer (AS-T). Consult with a Los Medanos College counselor to develop your education plan including additional general education courses.

Associate of Science for Transfer in Administration of Justice

Required core courses (6 units)

ADJUS 110	Introduction to Criminal Justice	(3 units)
ADJUS 120	Concepts of Criminal law	(3 units)

LIST A:

Choose two of the Following Courses (6 units)

ADJUS 122	Criminal Trial Process	(3 units)
ADJUS 124	Legal Aspects of Evidence	(3 units)
ADJUS 140	Criminal Investigation.	(3 units)
ADJUS 160	Community and the Justice System . . .	(3 units)
ADJUS 200	Introduction to Corrections	(3 units)
ADJUS 220	Juvenile Procedure	(3 units)

LIST B: Choose any course from LIST A not already used and/or from the following (6 units)

SOCIO 015	Introduction to Sociology	(3 units)
MATH 034	Introduction to Statistics	(4 units)
PSYCH 011	General Psychology	(3 units)

Administration of Justice Major Units	18-19
General Education (CSU GE or IGETC) Units	39
Elective (CSU Transferable) Units	8-9
TOTAL UNITS FOR THIS DEGREE	60

Administration of Justice Careers

The Administration of Justice Program prepares students for entry-level positions in criminal justice and for transfer to the California State Universities. There are three components in administration of justice: law enforcement, the court system and corrections. Law enforcement is the gateway function and includes police, sheriffs and federal law enforcement agencies. The court system is responsible for adjudicating crimes as presented by the prosecutor. The courtroom work group includes the judges, attorneys, bailiffs, court clerks and court reporters. Corrections (incarceration and community-based corrections) includes custody officers, probation and parole officers, program counselors, and other rehabilitative services.

Certificate of Achievement

The Certificate of Achievement in Administration of Justice includes the core curriculum (see left column) of the Associate in Science for Transfer Degree and may be completed by a full-time student in two semesters.

Associate Degree for Transfer

The Administration of Justice Department offers an Associate in Science for Transfer Degree, which can be completed in 2 to 3 years by a full-time student.

The degree requires:

1. Completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth requirements.
 - b. A minimum of 18 semester units in the Administration of Justice major (see left column).
2. A minimum grade point average of 2.0
3. Earning a C or better in all courses required for the Administration of Justice major.

Administration of Justice Salary Averages in California:

- Detective and Criminal Investigators: \$31.22-\$62.08/hour
- Police Officer: \$26.98-\$54.08/hour
- Probation Officers and Correctional Treatment Specialists: \$24.26-\$48.53/hour
- Criminal Investigators and Special Agents: \$31.22-\$62.08/hour

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

LOS MEDANOS COLLEGE



AUTOMOTIVE TECHNOLOGY PROGRAM

The Curriculum

For the Certificate of Achievement in Automotive Technology, complete 18 units of coursework listed below.

For the Associate of Science Degree in Automotive Technology, complete 24 units of coursework listed below as well as General Education requirements and electives.

Select a minimum of 18 or 24 units:

AUTO-035	Automotive Fundamentals	4
AUTO-037	Automotive Engine Machining	4
AUTO-040	Automotive Engine Diagnosis I	4
AUTO-041	Automotive Engine Diagnosis II	4
AUTO-042	Automotive Brakes	4
AUTO-043	Automotive Suspension and Steering	4
AUTO-045	Automotive Laboratory Practice	1.5
AUTO-046	Automotive Electricity and Electronics	4
AUTO-047	Automotive Heating and Air Conditioning	4
AUTO-048	Automatic Transmission and Transaxles	4
AUTO-049	Manual Transmission and Differential	4
AUTO-055	Clean Air Car Course + OBD II	3
AUTO 909*	Automotive Open Lab	1
TOTAL UNITS REQUIRED		18-24

**AUTO 900 courses do not necessarily transfer to four-year colleges and universities (please see a counselor regarding transfer information and degree applicability).*

The Career of an Automotive Service Technician

As a student in LMC's Automotive Technology Program, you'll receive training in many areas of automotive technology including emission control, engine diagnosis, tune-up, brakes, suspension systems and hybrid. This program prepares you to break into the field of automotive maintenance and repair or upgrade your skills. It also prepares those of you with at least two years of automotive experience to become Automotive Service Excellence (ASE) certified auto service technicians by mastering skills in many different areas.

Automotive service technicians work in automotive repair and maintenance shops and may be employed by independent shops, auto dealers, or eventually own their own businesses. Potential jobs include smog technician, transmission specialist, front-end alignment and brake technician, heating and air conditioning specialist, parts specialist and more.

Automotive Technician Salary Averages in California:

Automotive Service Technicians and Mechanics: \$11.24-\$32.47/hour

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Automotive Technology, complete 18 units of coursework listed to the left.

Associate of Science Degree

For the Associate of Science Degree in Automotive Technology (AS), complete 24 units of coursework listed to the left. A minimum total of 60 degree-applicable units are required for the associate degree - including these 24 major units, 18-19 general education units, and an additional 17-18 elective units. To complete the AS degree, consult the LMC Catalog for General Education Requirements and elective options, www.losmedanos.edu/catalog.

Want to know more?

Visit www.losmedanos.edu/auto or call Jason Dearman at 925-473-7739.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

Consult with a Los Medanos College counselor to develop your education plan.



AUTOMOTIVE TECHNOLOGY PROGRAM



John Bergerson

– Automotive Technology student

"The hands-on skills I've gained in my auto labs helps make all the lectures and tests finally strike home; and as a state-of-the-art open shop, it has helped me develop a practical understanding of real world problems. The auto technology faculty is amazing: always there to help and answer my questions, and share their knowledge only acquired through years of real life experience."

How long will it take to complete the automotive technology certificate and degree?

While it is possible to complete a certificate in less time, the average student will spend two years to earn a Certificate of Achievement in Automotive Technology. Adding advanced courses to your list like SMOG, hybrids and alternative fuels can add an additional semester. Students can often fit in their general education courses during the two years to earn a degree: the Associate of Science in Automotive Technology.

What makes LMC's automotive program different from others in the area?

Like all programs, LMC has a strong focus on theory. What sets us apart from all others is our live shop. Here at LMC, we bring the work environment right to you. Real customers bring us vehicles that have real problems. By the time you graduate, you will have diagnosed and repaired between two to three hundred cars. There simply is no better way to prepare for an automotive technology career.

The auto shop at LMC is one of the newest in the state. Our state-of-the-art training facility matches exactly what you will find in the most modern dealerships in the country.

Is there a required tool list?

You don't need to buy tools to complete our courses, just textbooks. During your time here, we will provide all the tools and equipment needed. When it's time for you to enter the workforce, many of our industry partners will help you build your personal tool inventory.

What if my work schedule won't allow for me to take regular day classes?

The quickest way to complete the automotive technology certificate and degree programs is to participate in the day schedule: however our working students are just as important to us! Every automotive course we offer is rotated into the night class schedule. Even students with the most impossible schedules have found a way to get the classes they need.

What classes should I start with?

The best place to start is Automotive Fundamentals (AUTO 35). No prior experience is needed for this course. Because most of our courses are specific to a single automotive system and we begin with the basics, you can easily jump right into Automotive Brakes, Automotive Suspension or even Automatic Transmissions with a limited automotive background.

Can I take only one course?

Yes, people take automotive technology classes at LMC for many reasons. Most of our students are here to complete the program and go into the field as technicians. Some are longtime technicians needing to refresh or widen their skill set. The complexity of modern cars can be daunting, but if you're up for the challenge, pick a class and discover how much fun automotive technology can be. College skills certificates require just a few classes and are intended to increase the skills of experienced mechanics or provide specialized training in a specific area.

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FIRE TECHNOLOGY PROGRAM



The Curriculum

For the Certificate of Achievement in Fire Technology, complete 24 units of coursework listed below.

Required Courses:

FIRE- 101	Fire Protection Organization	(3 units)
FIRE-102	Fire Behavior/ Combustion	(3 units)
FIRE-103	Fire Protection Equipment & Systems . .	(3 units)
FIRE-104	Building Construction for Fire Protection	(3 units)
FIRE-105	Fire Prevention	(3 units)
FIRE-107	Firefighter Safety and Survival	(3 units)

Electives: Complete A Total Of 6 Units:

FIRE-106	Physical Fitness for Public Safety Personnel	(1 units)
FIRE-170	Occupational Work Experience	(1-4 units)
EMS-010	Emergency Medical Technician	(8 units)
EMS-004	First Aid/CPR	(1 units)
BUS-086	Medical Terminology	(3 units)
SPCH-110	Speech Communication	(3 units)
PHIL-041	Critical Thinking	(3 units)

TOTAL UNITS FOR THIS CERTIFICATE. . . . 24

For the Associate of Science Degree in Fire Technology, complete 23 units of coursework listed below.

Required Courses:

FIRE- 101	Fire Protection Organization	(3 units)
FIRE-102	Fire Behavior/ Combustion	(3 units)
FIRE-103	Fire Protection Equipment & Systems . .	(3 units)
FIRE-104	Building Construction for Fire Protection	(3 units)
FIRE-105	Fire Prevention	(3 units)
EMS-010	Emergency Medical Technician 1.	(8 units)

TOTAL UNITS FOR THIS MAJOR 23

TOTAL UNITS FOR THIS DEGREE 60

Careers in Fire Technology:

Being a firefighter can be a very rewarding career. You have an opportunity to serve your community and make a difference in people's lives. The Fire Technology Program at Los Medanos College provides an education in fire protection as well as fire prevention. Our courses will help to prepare you for a future in the fire service. Completing this program can help you get a job in the forestry or conservation service, fire prevention, fire or building inspection, or in fire investigation. Some of the fire technology classes are prerequisites for entering the LMC Fire Academy, the next step to becoming a firefighter.

Fire Technology Salary Averages in California:

Fire Fighters: \$18.69-\$53.62/hour
Fire Inspector or Investigator: \$21.28-\$52.28/hour
Forest and Conservation Technician: \$11.98-\$25.92/hour

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

Certificate of Achievement

For the Certificate of Achievement in Fire Technology, complete 24 units of major coursework as listed in left column. The major courses may be taken out of sequential order. We strongly recommend developing good reading, writing and critical thinking skills prior to taking these classes.

Associate of Science Degree

For the Associate of Science Degree in Fire Technology, complete 23 units of major coursework listed in the left column along with the General Education course requirements. Consult the LMC Catalog for General Education Requirements at www.losmedanos.edu/catalog.

Want to know more?

Visit www.losmedanos.edu/fire or contact Mike Grillo at mgrillo@losmedanos.edu, 925-473-7750.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more. Consult with a Los Medanos College counselor to develop your education plan.



FIRE TECHNOLOGY PROGRAM



Chris Giddis

*Fire Technology student,
Fire Academy graduate*

"I have learned so much through the LMC Fire Technology Program, including how to work effectively within a team to achieve a common goal in varying and challenging situations. The instructors have vast experience in both the classroom and the field; the knowledge they share gives me the confidence to move forward with my career as a firefighter. Their enthusiasm for their profession creates excitement for what my future holds!"

What makes a good firefighter?

Those who succeed as firefighters usually are seeking a career that is more than just a job, where they can make a difference in their communities. They are also motivated, with self-initiative and have a good work ethic. Being a firefighter is physically demanding, so start getting in shape now to prepare.

How much does the program cost?

Current enrollment fees for residents and non-California residents are published on the college website at www.losmedanos.edu/admissions/fees. Textbooks for each course will need to be purchased and the LMC Bookstore will stock books for each course immediately before each course begins. Some of our courses have lab fees; an example is EMS 10, which has lab fees between \$50 and \$100. Consult the LMC catalog for individual lab costs. Some other materials fees may apply. Scholarships and other forms of financial aid are available for those in financial need.

How long does it take to complete the Fire Technology Certificate of Achievement program?

You can determine your own pace for completing the certificate or degree. It takes the average student 3-4 semesters to complete all of the certificate courses including the Emergency Medical Technician (EMS 10) class. The Associate of Science in Fire Technology can be completed in 2- 2 ½ years.

Can I transfer fire and EMS courses from other colleges to Los Medanos College?

Classes taken at another California Community College are transferable to Los Medanos College. Classes taken at any private institution are normally not transferable. You may submit a waiver form obtained in the LMC Admissions Office in an attempt to have other classes taken at private facilities to be reviewed at LMC.

Does Los Medanos College provide employment assistance?

Yes, both the Fire and Emergency Medical Services programs at LMC have strong connections with regional industry partners in fire and ambulance services. Faculty in both programs will provide you with employment leads; however, employment is not guaranteed through Los Medanos College.

Does Los Medanos College offer an accredited fire academy?

LMC has a fire academy that prepares our students for the next step to becoming a firefighter. The LMC Fire Academy is accredited through the California State Fire Marshal's office. The Academy is a 15-unit program that strictly follows the State Fire Marshal's curriculum.

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COMPUTER SCIENCE

ASSOCIATE DEGREE FOR TRANSFER

The Curriculum

This curriculum includes the roadmap to completing the Associate in Science in Computer Science for Transfer Degree (AS-T). Consult with a Los Medanos College counselor to develop your education plan including appropriate GE coursework.

YEAR 1

Fall Semester (16 units)

COMSC 122	Programming Concepts & Methodologies I (3 units)
MATH 050	Calculus and Analytic Geometry I (4 units)
IGETC	GE (9 units)

Spring Semester (15 units)

COMSC 132	Programming Concepts & Methodologies II (3 units)
MATH 060	Calculus and Analytic Geometry II (4 units)
PHYS 040	Physics for Scientists and Engineers I (4 units)
IGETC	GE (4 units)

YEAR 2

Fall Semester (17 units)

COMSC 142	Computer Architecture and Organization (3 units)
MATH 070*	Calculus and Analytic Geometry III (4 units)
PHYS 041	Physics for Scientists and Engineers II (4 units)
IGETC	GE (6 units)

Spring Semester (16 units)

MATH 160	Discrete Math (4 units)
IGETC	GE (12 units)

TOTAL UNITS FOR THIS DEGREE: 60

Note: To complete this degree at Los Medanos College with no more than 60 units, students must follow IGETC General Education Requirements. Students will not be able to complete the degree within 60 units following the CSU General Education Breadth Requirements. Therefore, students are highly encouraged to consult with their counselor when choosing general education classes.

Total Major Requirement: 29 units
Total Additional Requirement: 4 units*
Total IGETC-GE Requirement: 31 units
Total Unit Requirement: 60 units*

*MATH-070 is a prerequisite/co-requisite for PHYS-041, therefore it does not count towards the 60 unit total.

Careers in Computer Science:

Do you think it would be cool to design the technologies that make devices work better? To invent new ones? To help make people's lives and jobs easier? Then maybe computer science is the right path for you! Computer scientists use technology to solve problems. They write software to make computers do new things or accomplish tasks more efficiently. They create applications for mobile devices, develop websites, and program software.

One of the biggest things computer science majors learn is how to logically think through a problem and find a way to solve it. Computer scientists also understand teamwork and are good communicators. They work with other people all the time, including those who don't come from a computer science background. Some students go into computer science because they like working with computers. Others want to solve problems with technology. Whatever your passion, a computer science degree is a great foundation for all kinds of jobs.

www.collegeexpress.com/interests/science-and-engineering/articles/careers-science-engineering/what-can-you-do-computer-science-major/

National Annual Salary Averages for Computer Science Careers

Computer Systems Analyst:	\$81,190
Software Developer, Systems Software:	\$101,410
Computer and Information Systems Manager:	\$123,950
Computer Network Architect:	\$95,380
Software Quality Assurance Engineer and Tester:	\$82,340
Video Game Designer:	\$82,340
Bioinformatics Scientist:	\$72,720

Associate in Science in Computer Science for Transfer Degree

The Associate in Science in Computer Science for Transfer Degree is designed for students desiring advanced degrees in computer science. The Los Medanos College (LMC) computer science courses meet the lower division transfer requirements for computer science and prepare students to transfer and study at a California State University (CSU). A baccalaureate degree is the recommended preparation for those considering professional careers in computer science.

To achieve the Associate in Science in Computer Science for Transfer Degree, students must complete 60 semester units noted in the left column that are eligible for transfer to the CSU system; fulfill the Intersegmental General Education Transfer Curriculum (IGETC) or the CSU General Education – Breadth Requirements; complete a minimum of 29 semester units in computer science major (see left column), obtain a minimum grade point average of 2.0, earn a "C" grade or better in all courses required for the computer science major. A "P" (Pass) grade is not acceptable grade for courses in the major.



Associate Degree
for Transfer™



COMPUTER SCIENCE

ASSOCIATE DEGREE FOR TRANSFER



Prabhjot (Prince) Singh
Computer Science student

Studying computer science at LMC feels natural to me. It has prepared me to tackle all sorts of real life scenarios, thanks to the faculty, staff, and all the equipment provided. The curriculum is constantly updated in order to stay up to date with current technology. Having studied many computer science classes including computer programming, game design, and hardware, I don't think I have missed out on anything.

While at LMC, I've become a STEM Scholar, an Honors Scholar, a tutor for both the Math and MESA labs, involved with Alpha Gamma Sigma (AGS), and even started my own calculus club (C.A.L.C.). My plan is to transfer and ultimately to become a software engineer working with a space agency such as NASA or SpaceX. Thanks to the vast experiences and lessons shared by my wise teachers, I am already confident enough to work at a professional setting.

Where can I transfer if I major in computer science?

Los Medanos College computer science students have successfully transferred to UC Davis, Cal State East Bay, San Jose State, San Francisco State, and many other university and colleges.

What resources at LMC are available to help STEM transfer students succeed?

The MESA (Math, Engineering, and Science Achievement) Center offers tutoring and support in all STEM fields. Students are encouraged to join MESA, a national program for first generation college students interested in STEM fields of study. We have a STEM counselor who helps students develop an education plan for transfer. Math labs are available at the Pittsburg and Brentwood campuses. In addition, students can receive help from STEM faculty during office hours and from tutors in the Center for Academic Support.

Do I need to take the LMC Math Placement Assessment to enroll in classes at LMC?

No. If you have passed Algebra 2, with a C or better for two semesters you can register for Pre-Calculus with your high school transcripts. There is no need to take the LMC Math Placement Assessment.

Do I need to take General Education or IGETC courses in order to transfer to a 4-year college or university with an emphasis in computer science?

Make an appointment to talk with the LMC STEM counselor for detailed information about what is required for the Associate in Science in Computer Science for Transfer Degree.

Does LMC offer TAGs and TAAs?

Yes, we offer both. A TAG is a Transfer Admission Guarantee offered by 6 UC campuses. The program guarantees transfer admission to students who apply and meet specified criteria. A TAA is a Transfer Admission Agreement. In addition to UC campuses, LMC has TAAs with several California private schools, and some out-of-state colleges such as HBCUs (Historically Black Colleges & Universities). For more information, visit:

www.losmedanos.edu/transfer/colleges.asp

Do I need to complete the AS-T degree in Computer Science before I can apply for transfer to a university or college?

You do not need to complete the AS-T in Computer Science in order to transfer to a college or university, but it may be highly desirable. It is important to check with the LMC STEM counselor for transfer information.

Want to know more?

Visit www.losmedanos.edu/computerscience. We also recommend that you make an appointment to meet with our LMC STEM Counselor for personalized planning.

Want to become an LMC student?

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COMPUTER SCIENCE Networking & Security

The Curriculum

This list is provided as a sample guide showing what a full-time student's schedule may look like. There is no guarantee that all classes will be offered each semester or that space will be available.

Certificate of Achievement (Basic)

Required courses

COMSC-010 Introduction to Computer Networking	(2 units)
COMSC-011 Intro to Networking Operating Systems	(2 units)
COMSC-012 Intro to Network Security	(2 units)
COMSC-040 Intro to Computers	(4 units)
COMSC-080 Survey of Operating Systems	(3 units)
COMSC-120 Intro to Computer Forensics	(3 units)
. . . . TOTAL UNITS FOR THIS CERTIFICATE 16	

Certificate of Achievement (Advanced)

First Semester (9 units)

COMSC-010 Introduction to Computer Networking	(2 units)
COMSC-037 Help Desk-Customer Technical Support	(3 units)
COMSC-040 Intro to Computers	(4 units)

Second Semester (10 units)

COMSC-011 Intro to Networking Operating Systems	(2 units)
COMSC-012 Intro to Network Security	(2 units)
COMSC-041 Programming with VB.NET	(3 units)
COMSC-120 Intro to Computer Forensics	(3 units)

Third Semester (12 units)

COMSC-044 C++, Part I	(3 units)
COMSC-080 Survey of Operating Systems	(3 units)
COMSC-121 Comp Forensics Investigations & Analysis	(3 units)
COMSC-123 Introduction to Computer Ethics	(3 units)
. . . TOTAL UNITS FOR THIS CERTIFICATE 31-32	

Networking and Security

Everywhere around us, the security of our computer resources is of great concern. Be a part of the solution! LMC's Computer Science Department offers a number of options to help you prepare for a career in this dynamic, high-demand industry in the Bay Area. In addition to developing your technical skills, our programs provide you with new job skills, better career choices and better wages.

Careers in Networking & Security

The Networking and Security Basic and Advanced Certificate of Achievement programs will prepare students for jobs in computer forensics and/or networking. These jobs require excellent technical skills and the ability to investigate and solve problems or crimes. Most organizations require network specialists. Given the rise in computer crimes, viruses, and computer hacking, the need for computer forensics professionals has increased in the government and in the private sector. Possible careers include network and security support, security specialist, network administrator, and software quality assurance tester. The Associate of Science Degree in Networking and Security develops your technical skills while enhancing your professional skill to increase your career opportunities and potential to advance to higher level positions.

Networking & Security Salary Averages in California:

Network and Computer Systems Administrator: \$24.44-\$58.13/hour
Information Security Analysis: \$30.31-\$67.78/hour

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

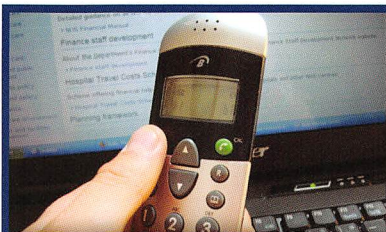
Certificate of Achievement

The **Certificate of Achievement (Basic)** requires completion of 16 units of coursework listed to the left.

The **Certificate of Achievement (Advanced)** requires completion of 31-32 units of coursework listed to the left.

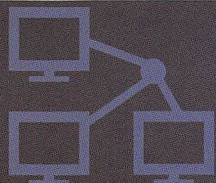
Associate of Science

The Associate of Science in Networking and Security (AS) requires a minimum total of 60 degree-applicable units. This includes completion of 31-32 major units (see left list) as well as 18-19 General Education (GE) units, and 9-11 degree-applicable elective units. To complete the AS degree, consult the LMC Catalog for General Education Requirements and elective options, www.losmedanos.edu/catalog.



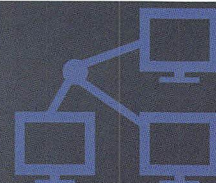
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COMPUTER SCIENCE

Networking & Security



Sonia Vijh

Computer Science student

"The Computer Security and Networking program is providing me with the skills and in-depth knowledge of troubleshooting & fixing networking issues. The program's instructors are very helpful and make sure that I thoroughly understand the subject. LMC's computer lab staff has provided me with wonderful support. I plan to earn an Associate of Science in Networking and Security. This degree will allow me to obtain a position as a help desk technician where I would support various computer users throughout a company."

How long does it take to complete courses for these programs?

As a full time student, you can earn a certificate of achievement (basic) in as little as one semester, while the advanced certificate takes most students three semesters to complete.

Depending on your schedule, you can earn your Associate of Science in Networking and Security degree in as little as two years.

What if I only want to brush up my job skills?

Great! You might consider taking some refresher courses. The Networking and Security curriculum has two certificates that you can choose from. The basic certificate can be completed in as little as one semester and is perfect for people wanting to brush up on the latest networking skills. The advanced certificate will take a little longer as you need to complete 31-32 units. This certificate does not require you to complete general education units.

I have access to a computer. How do I obtain copies of the software needed?

Your computer should have the software needed for you to succeed in this program. As a student of LMC, you will have access to educational discounts on a range of software. Students who do not have access to a computer are encouraged to use computers located in the Computer Lab. This lab has all of the software installed that is needed for the degree you are working towards.

Is there help available?

Yes. The Computer Lab provides computers loaded with the software you need to work on your assignments, and staff support if you hit a snag or need some encouragement. We're here for you and want to make sure you succeed.

When and what types of classes are offered?

There are both in-person and online courses. In-person classes are offered both day and evenings. Most of the courses also have "hands-on" labs.

How much experience or education do I need to start a degree or certificate?

Classes begin at the introductory level and continue to the more advanced levels.

Want to know more?

Visit www.losmedanos.edu/computerscience, or contact Department Chair Clayton Smith at csmith@losmedanos.edu or 925-473-7792.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

Consult with a Los Medanos College counselor to develop your education plan.

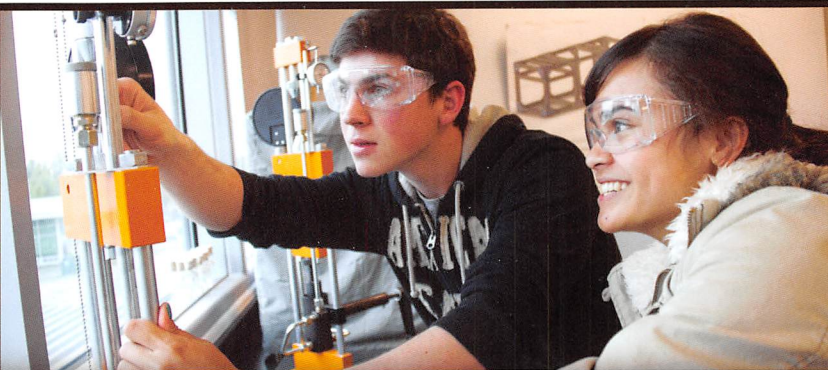
It is the policy of the Contra Costa Community College District and Los Medanos College to provide an educational and employment environment in which no person shall be unlawfully subject to discrimination on the basis of ethnic group identification, national origin, religion, age, sex, sexual orientation, gender, race, color, medical condition, ancestry, marital status or physical or mental disability or based on association with a person or group with one or more of these actual or perceived characteristics. This holds true for all students who are interested in participating in educational programs and/or extracurricular activities. Unlawful harassment, discrimination or denial of access of any employee/student with regard to ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, or physical or mental disability is strictly prohibited. The lack of English language skills will not be a barrier to admission and participation in the college's education programs. Inquiries regarding compliance and/or grievance procedures and requests for the elevation and addition of sports may be directed to the Los Medanos College Title IX Officer and Section 504/ADA Coordinator: Gail Newman, Senior Dean, Student Services, gnewman@losmedanos.edu, (925) 473-7421

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ENGINEERING

The Curriculum

This roadmap is provided as a SAMPLE GUIDE showing what a full-time student's schedule MAY look like in a 2-year format. If you are planning to transfer to a four-year university, it should be individualized for specific majors and transfer to universities. You must meet all prerequisite requirements prior to registering for a class.

YEAR 1

Fall Semester (15 units)

MATH 50	Calculus & Analytic Geometry I (4 units)
CHEM 25	General College Chemistry (5 units)
ENGL 100	College Composition (3 units)
ENGIN 010	Introduction to Engineering (3 units)

Spring Semester (18-20 units)

MATH 60	Calculus & Analytic Geometry II (4 units)
PHYSICS 040	Physics for Scientists & Engineers I (4 units)
CHEM 026	General College Chemistry, or COMSC or GE (3-5 units)
ENGIN 020	Programming with C++ for Engineers & Scientists (4 units)
ENGIN 025	Engineering Graphics (3 units)

Summer Session (6 units)

GE or SPCH 110	Speech Communication (3 units)
ENGL 220, or ENGL 221, or ENGL 230	(3 units)

YEAR 2

Fall Semester (15-16 units)

MATH 70	Calculus and Analytic Geometry III (4 units)
PHYS 041	Physics for Scientists and Engineers II (4 units)
ENGIN 022	Programming with MATLAB for Engineers & Scientists, or 030 Materials Science, or 036 Engineering Statics, or 038 Manufacturing Processes (4 units)
GE or ENGIN	(3-4 units)

Spring Semester (13 units)

MATH 075	Linear Algebra (3 units)
PHYS 042	Physics for Scientists & Engineers III (4 units)
MATH 080	Differential Equations (3 units)
ENGIN 045	Engineering Circuits, or 046 Engineering Dynamics, or GE (3 units)

Summer Session

Internship - Consult with Instructor or STEM Counselor

UNITS PER YEAR 28-41
TOTAL UNITS FOR THIS MAJOR 67-70

Engineering Careers

Do you want to develop exciting new technologies such as nanotechnology, robotics, biomedical technology, or would you like to create new materials? Do you want to tackle the problems posed by expanding populations, global warming, and limited energy supplies? Do you think it would be interesting to create more energy efficient technologies, make more reliable transportation systems, participate in space exploration, or help create the future? Would you like to invent things? Are you creative? Do you pay attention to details? Do you like to find a better way of doing things? Do you enjoy learning how things work? If you answered yes to any of these questions, then you should consider a career in engineering!

Engineers design most of the structures, machines, products and processes encountered in everyday life. Most engineers combine knowledge of engineering, science and math to creatively solve problems faced by society. If you excel in math and science, then you have the aptitude necessary to become a successful engineer. In addition to designing, engineering career paths can lead to work in research, management, consulting and sales. There can also be many opportunities for travel. The projects you will work on depend on the engineering discipline you choose.

National Annual Salary Averages for Engineering Careers

Civil Engineer:	\$80,770
Chemical Engineer:	\$95,730
Aerospace Engineer:	\$103,870
Mechanical Engineer:	\$82,100
Electrical Engineer:	\$89,180
Computer Hardware Engineer:	\$104,250
Biomedical Engineer:	\$88,670

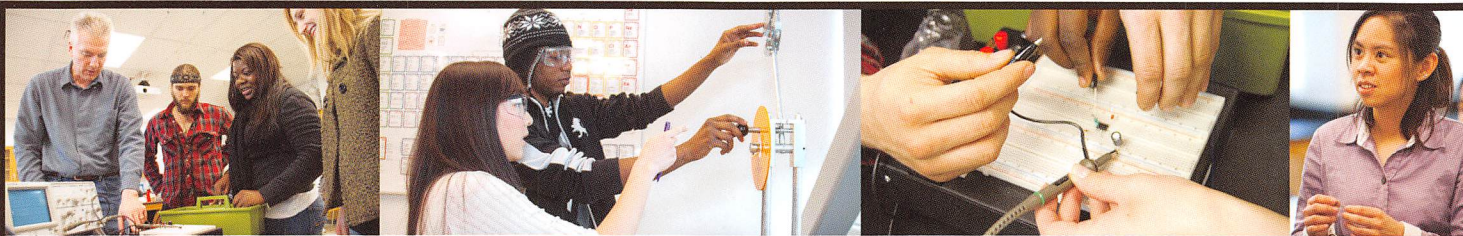
Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

The Transfer Path for an Engineering Major

Follow the roadmap to the left to transfer to a four-year university in an engineering major. Keep in mind that this is a sample schedule. It provides an intense 2-year curriculum requiring all prerequisites before starting. We also have a 3-year curriculum that includes many of the prerequisites. Visit www.losmedanos.edu/roadmaps/#A for important details about both roadmaps. Visit www.losmedanos.edu/engineering and www.losmedanos.edu/catalog for more information about the degree and classes.

Associate of Science

For the Associate of Science Degree (AS) in Engineering, complete 55 units of coursework as listed in the Los Medanos College Catalog, as well as the General Education requirements. Consult with our LMC STEM Counselor to develop your education plan.



ENGINEERING



Terry Richards
Engineering student

At LMC, the professors have helped me change into the student I am today. My physics and engineering professors have not only helped me learn the technical side of the field, but also how to be a better organized student and how to plan ahead of problems.

I am planning to transfer to UC Davis in engineering. After completing my bachelor's degree, I'd like to work for PG&E because the opportunities and benefits are great. I might start my own company eventually. As an electrical engineer, I hope to create a new technology that would make life just a bit easier for people.

What types of engineering majors will I be prepared for when I transfer from LMC?

LMC offers course preparation in civil, mechanical, electrical, biomedical, aerospace, industrial, materials science, chemical engineering and more. The courses you take at LMC will depend on which of these disciplines you wish to pursue, and the transfer requirements of the university or college you want to attend.

Where can I transfer?

Los Medanos College engineering students have successfully transferred to UC Davis, Cal Poly San Luis Obispo, Cal State East Bay, UC Berkeley, San Jose State, Embry-Riddle University, San Francisco State, Sacramento State, UC Merced, San Diego State and many other university and colleges.

What resources at LMC are available to help STEM transfer students succeed?

The MESA (Math, Engineering, and Science Achievement) Center offers tutoring and support in all STEM fields. Students are encouraged to join MESA, a national program for first generation college students interested in STEM fields of study. We have a STEM counselor who helps students develop an education plan for transfer. Math labs are available at the Pittsburg and Brentwood campuses. In addition, students can receive help from STEM faculty during office hours and from tutors in the Center for Academic Support.

Do I need to take the LMC Math Placement Assessment?

No. If you have passed Algebra 2, with a C or better for two semesters, you can register for pre-calculus with your high school transcripts. It is even better to finish pre-calculus in high school.

Do I need to take CSU General Education courses or IGETC courses in order to transfer to a 4-year college or university with an emphasis in engineering?

No. Our STEM counselor and the course, ENGIN 10, will help you sort out the classes needed for transfer in engineering.

Will there be internship opportunities?

Yes, our STEM students will be able to apply for internships that are posted on the MESA website, and we also email all STEM transfer students with internship information and STEM opportunities.

Are TAGs or TAAs available?

Yes. A TAG is a Transfer Admission Guarantee offered by 6 UC campuses.

Check out this website for more information: www.losmedanos.edu/transfer/colleges.asp

How long will it take me to transfer to a university or college in my chosen field of engineering?

You can choose from a 2-year or 3-year roadmap of classes, depending on which classes you took in high school. Students who take math courses through pre-calculus, chemistry, and physics in high school will require less time to transfer. Consult our STEM Counselor to decide which roadmap works best for you. You can also create an education plan in the course ENGIN 10, Introduction to Engineering.

How much time will I need besides class time to complete this program?

This plan is for full-time students who can study 26 to 36+ hours every week outside of class. For successful completion, it will require your commitment and excellent time management skills. Planning for transfer is a complex process. Please consult with your LMC Counselor, professors in your major classes, and university representatives every semester.

Want to know more?

Visit www.losmedanos.edu/engineering for department information or www.losmedanos.edu/roadmaps/#A for curriculum details for both the 2-year and 3-year plans.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

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APPLIANCE TECHNOLOGY PROGRAM

The Curriculum

Certificate of Achievement in Appliance Service Technology Technician I

Primarily an evening program, this option prepares students for entry-level positions as appliance installers or shop technician trainees. Upon successful completion, students will also receive EPA certification.

Spring 2015 (4 units)

APPLI 014	Advanced Electrical Appliances Tech 1	(3 units)
APPLI 021	Electrical Appliance Lab: Tech 1	(1 units)

Summer 2015 (2 units)

ACREF 045	Basic Heating and Cooling Technology	(2 units)
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Fall 2015 (4.5 units)

APPLI 023	Basic Refrigeration Tech 1	(3 units)
APPLI 031	Refrigeration Lab: Tech 1	(1 units)
APPLI 046	Principles and Repair of Microwave	(.5 units)

Spring 2016 (4 units)

APPLI 013	Beginning Electrical Appliances Tech 1	(3 units)
APPLI 037	Inter Appliance & Refrig Lab: Tech 1	(1 units)

Fall 2016 (4 units)

APPLI 024	Advanced Refrigeration Tech 1	(3 units)
APPLI 038	Adv Appliance & Refrig Lab: Tech 1	(1 units)

..... Total Units 18.5

Certificate of Achievement Appliance Service Technology Technician II

Primarily a day program, the Technician II option prepares students for entry-level positions in the appliance service field. Working through the program internships provides successful students with a rapid transition to the field as a service technician.

Spring 2015 (9 units)

APPLI 025	Refrigeration I	(4 units)
APPLI 030	Refrigeration Shop Practice	(5 units)

Fall 2015 (9 units)

APPLI 015	Electrical Appliances I	(4 units)
APPLI 020	Electrical Appliance Shop Practice	(5 units)

Spring 2016 (9 units)

APPLI 026	Advanced Refrigeration II	(4 units)
APPLI 035	Intermediate Appliance Lab	(5 units)

Fall 2016 (9 units)

APPLI 016	Advanced Electrical Appliances II	(4 units)
APPLI 036	Advanced Appliance & Refrigeration Lab	(5 units)

..... Total Units 36

Careers in Appliance Technology

Does technology interest you? Do you like to tinker with mechanics? Do you find satisfaction in helping people? Are you an independent self-starter? These talents can lead you into a career as an appliance service technician. The field of appliance service technology deals with repairing major household appliances. Technicians inspect, troubleshoot and repair major appliances such as refrigerators, ranges, dishwashers, microwave ovens, washers and dryers. The latest in computer and electronics technology is applied to home appliances. This is an excellent mechanical and technical career for both men and women.

LMC's Appliance Service Technology Program offers instruction for two career options. The Appliance Technician I option prepares students for entry-level positions as appliance installers or shop technician trainees. Students selecting the Appliance Technician II option will be prepared for entry-level positions in the appliance service field, with sufficient background to support a rapid transition to the field technician level.

The job outlook for appliance technicians is very good, especially for those with the right training. There is a serious shortage of skilled appliance service technicians. LMC graduates work for repair companies, appliance manufacturers and retailers. Many have advanced to management positions, moved into sales and marketing, or started their own appliance repair business.

Appliance Salary Averages in California:

Home Appliance Repairer: \$12.12-\$29.92/hour
HVAC Mechanic and Installer: \$15.17-\$36.69/hour

Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

Certificate of Achievement

The Certificate of Achievement in Appliance Service Technology (Appliance Technician 1 & 2), complete the coursework listed to the left.

Associate of Science Degree,

The Associate of Science Degree in Appliance Service Technology requires 60 degree-applicable units including major courses as well as General Education Requirements and electives. To complete the AS degree, consult the LMC Catalog for the list of major courses and General Education Requirements at www.losmedanos.edu/catalog.

Want to know more?

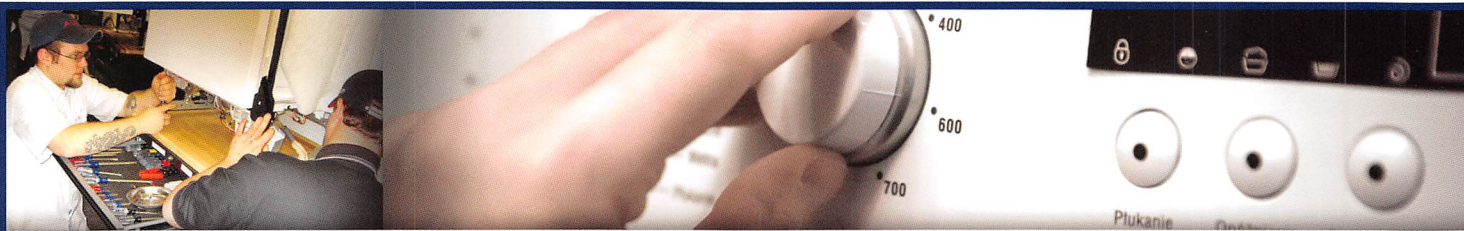
Visit www.losmedanos.edu/appliance or contact
Len Price at lprice@losmedanos.edu, 925-473-7737.

Want to become an LMC student?

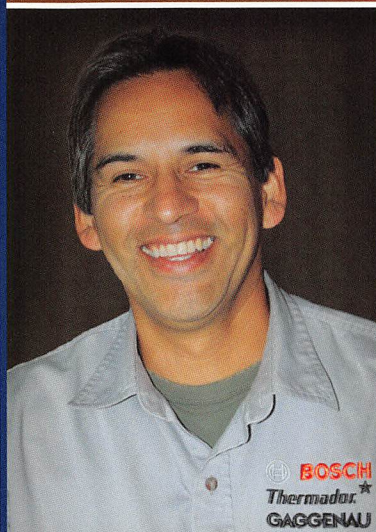
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APPLIANCE TECHNOLOGY PROGRAM



– Mark Luis, LMC alum
Certificate of Achievement in
Appliance Service Technology

"When I started at LMC, I was glad to find a fully equipped shop with many current appliances to work on. Coming from a different industry, I had to start from the ground floor. The instructors and aides worked patiently all the way until I understood it. All the major and local appliance repair companies are aware of and work with LMC's Appliance Service Technology Program so, if you really want a job and want to work, this training can take you there. BOSCH hired me before my last semester. That was three years ago and I have three BOSCH coworkers who are also LMC graduates. I like my job and I think I can do this as long as I want to."

Why should I choose LMC's Appliance Service Technology Program?

The appliance service industry calls this a recession proof job because they are always looking to hire new employees. LMC's program is nationally known for its outstanding classes. It is the only appliance service technology program in the California Community College system. You will learn up-to-date technology used in the appliance industry in repairing new and late model appliances. You'll get hands-on training using the latest equipment in day, evening or weekend classes. You can even become EPA certified to work on refrigeration units.

Major employers from the Bay Area and across the country recruit our students. Graduates have gone on to become service managers for manufacturers and company owners of local businesses. Advanced students receive on-the-job training through an internship program with Sears, Samsung, BOSCH, Thermador, General Electric and local appliance companies. We have connections with employers locally and nationally to help with job placement.

What are the benefits of being an appliance service technician?

Appliance service technicians enjoy a great deal of freedom, independence and control. Most technicians are provided a company vehicle and many make their own routes for the day. That means your office is parked in front of your home and you don't have to commute to get to work. This is no factory job where you have to do the same thing day after day. You will never be bored doing this job. On every call, you will be servicing different appliances and at a different location. As a appliance technician, you can live anywhere in the country and easily find employment. Over the next several years, there will be an increasing demand for appliance service technicians as job openings will continue to outnumber jobseekers.

Many larger dealers, manufacturers, and service stores offer typical benefits such as health insurance

coverage, sick leave, and retirement and pension programs. You can work for a larger service company with all the fringe benefits (including paid college tuition), or you can make your own opportunities by opening your own business.

Are there different career paths within Appliance Service Technology?

Many appliance technicians stay in the profession or manage larger service operations. A good percentage of technicians become employees of major appliance manufacturers, like Maytag, Sears and Whirlpool, in the role of technician, trainer, customer service managers and product specialist. Many graduates have chosen a path to work for BART, AC Transit, and as hospital stationery engineers. More than 20% of appliance technicians are self-employed. Some home appliance repairers belong to the International Brotherhood of Electrical Workers.

What kind of income can I expect?

The starting salary, including commission, begins around \$39,000 a year. Median salaries are around \$60,000 a year. A technician can increase his or her salary another 10-20% by selling contracts and accessories to their customers. On top of the salary, most companies pay medical, retirement benefits, vacation and provide a company vehicle.

How long does the program take?

A certificate of achievement can be earned in both the day and evening program in four semesters. We also offer an accelerated program that allows a student to earn a certificate of achievement in 11 months by attending both day and evening classes.

How much does the program cost?

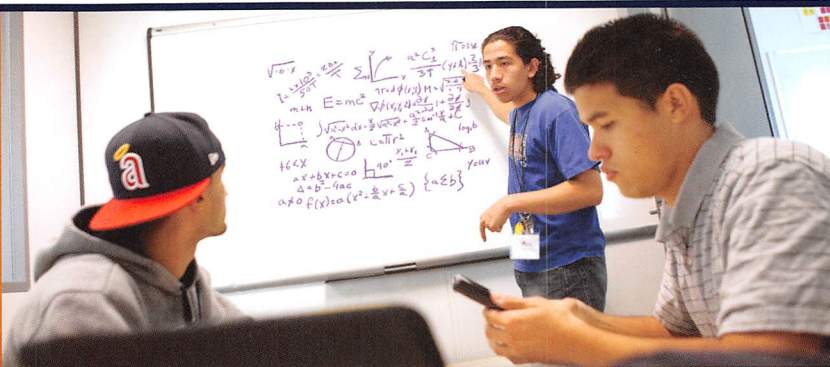
Current enrollment fees for residents and non-California residents are published on the college website at www.losmedanos.edu/admissions/fees. Textbooks for each course will need to be purchased. There are no additional lab fees for appliance courses.

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MATH PROGRAM

ASSOCIATE DEGREE FOR TRANSFER

The Curriculum

This curriculum is provided as a SAMPLE GUIDE showing what a full-time student's schedule MAY look like in a two-year format. If you are planning to transfer to a four-year university, it should be individualized for specific majors and transfer to universities. You must meet all prerequisite requirements prior to registering for a class.

YEAR 1

Fall Semester (14 units)

MATH 050 **Calculus and Analytic Geometry I** (4 units)
ENGL 100 **College Composition** (3 units)
PHYS, CHEM or BIO GE (3 units)
GE (3 units)

Spring Semester (14 units)

MATH 060 **Calculus and Analytic Geometry II** (4 units)
ENGL 220 or ENGL 221 (3 units)
PHYS 040 or MATH 160 or GE (4 units)
GE (3 units)

Summer Session (3 units)

GE or SPCH 110 Speech Comm (3 units)

YEAR 2

Fall Semester (13-16 units)

MATH 70 **Calculus & Analytic Geometry III** (4 units)
COMSC 044 or 132 or ENGIN 020 (3-4 units)
GE (3-5 units)
GE (3 units)

Spring Semester (12 units)

MATH 075 **Linear Algebra** (3 units)
MATH 080 **Differential Equations** (3 units)
GE/Electives (3 units)
GE (3 units)

Summer Session (3 units)

Internship (3 units)

TOTAL UNITS FOR THIS DEGREE: 60

Mathematics Careers

What can you do with a degree in mathematics? Actually, just about anything. No really, we mean it. Studying mathematics seriously prepares you for almost any career (not just high-school or college teaching or pure mathematics research). One of the reasons that mathematically-trained people are needed in almost every field is that they are known for their excellent problem-solving and critical thinking skills.

Math majors can find careers in the following fields because they think clearly, reason well, and strategize effectively: Actuarial Science, Bio-mathematics, Computer Analysis or Programming, Cryptography, Economics, Engineering Analysis, Finance, Government Intelligence Agent, Marketing Research Analysis, Meteorology, Numerical Analysis, Operations Research, Statistics, Systems Analysis, and Teaching, to name just a few.
www.toroidalsnark.net/mathcareers.html

National Annual Salary Averages for Biology Careers

Actuary:	\$94,340
Financial Manager:	\$112,700
Secondary School Teacher:	\$55,360
Statistician:	\$79,290
Biostatistician:	\$79,290
Mathematician:	\$102,440
Computer Programmer:	\$76,140

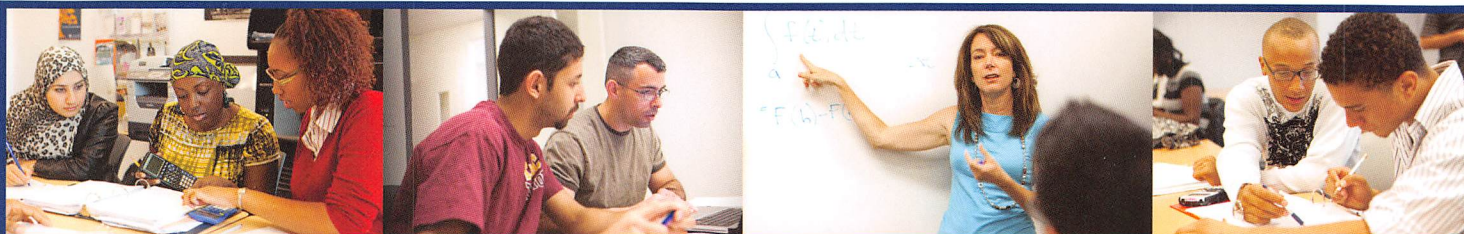
Information gathered from onetonline.org, which is sponsored by the Department of Labor, 2014

Associate in Science in Mathematics for Transfer (AS-T)

The Associate in Science in Mathematics for Transfer (AS-T) at Los Medanos College prepares students to transfer into a 4-year institution to pursue a baccalaureate degree in mathematics. To achieve the AS-T in mathematics from LMC, students must 1) complete the degree requirements; 2) fulfill CSU-General Education requirements, or IGETC; 3) complete 60 college transferrable units; and 4) obtain a minimum GPA of 2.0. Associate degrees for transfer require that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is not an acceptable grade for courses in the major. Consult with the LMC STEM counselor for further information.



Associate Degree
for Transfer™



MATH PROGRAM

ASSOCIATE DEGREE FOR TRANSFER



Kelsea Weber

Associate of Science in Mathematics
Associate of Arts: Liberal Arts and
Sciences, Arts and Humanities
Currently at Cal Poly San Luis Obispo
studying mathematics and teaching

I struggled with math all my life. It wasn't until I came to LMC and was shown my true potential that my love for math began to grow. My experience with LMC's math program was very inspiring and motivating. The faculty's clear and effective teaching methods and eagerness to help supported me throughout my time at the college. The incredible experience of working as a math lab tutor at the LMC Brentwood Center inspired me to major in math education.

My goal is to teach math courses at the middle school or high school level and do research focusing on math education. Eventually, I plan to earn my masters, in either education or math education and teach at a community college. I want to give students the same support and motivation to succeed in math classes that the LMC math faculty gave me.

What can a math major do?

Math is the foundation for any STEM career! For example, there is applied mathematics, which includes actuarial careers, and financial analyst careers; there is pure mathematics, which includes research or teaching; and there is interdisciplinary mathematics, which includes bioinformatics or statistics.

What does LMC have to offer?

We have a vibrant MESA (Math, Engineering and Science Achievement) center, with intelligent, highly-motivated students who want to support your success, and there are also two dedicated math labs: one in the Math building and one at the Brentwood center. LMC also offers tutoring in the Center for Academic Support.

Do I need to take the LMC Math Placement Assessment?

No. If you have passed Algebra 2, with a C or better for two semesters you can register for Pre-Calculus with your high school transcripts.

How much time will I need besides class time to complete this program?

This plan is for full-time students who can study 26 to 32 hours every week outside of class. For successful completion, it will require your commitment and excellent time management skills. Planning for transfer is a complex process. Please consult with your LMC Counselor, professors in your major classes, and university representatives every semester.

What are TAGs and TAAs?

A TAG is a Transfer Admission Guarantee Offered by 6 UC campuses. The program guarantees transfer admission to students who apply and meet specified criteria, such as a GPA of 3.0 or higher, and completion of specific courses. A TAA is a Transfer Admission Agreement. (TAGs and TAAs are alternate names used for the same type of program.) In addition to UC campuses, LMC has TAAs with several California private schools, and some out-of-state colleges such as HBCUs (Historically Black Colleges & Universities). Check out this website for more information:
www.losmedanos.edu/transfer/colleges.asp

Can you transfer out of LMC, in math, as a junior?

Yes. We have an Associate in Science for Transfer Degree (AS-T) in Mathematics. It is a program designed to prepare students to transfer and study math at a 4-year institution. Make an appointment with our LMC STEM Counselor for more information.

I like math! What should I do?

Contact the Math Department Chair and set up a time to meet and talk about the opportunities that becoming a math major has to offer!

Want to know more?

Visit www.losmedanos.edu/math for department information or www.losmedanos.edu/roadmaps/#A for curriculum details for the 2-year plan.

Want to become an LMC student?

Visit www.losmedanos.edu/registration to apply and more.

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