



# DIVISION OF ADVANCED TECHNOLOGY AND APPLIED SCIENCE

## AQUARIUM AND AQUACULTURE SCIENCE • 949/582-4624 or 4657

The Aquarium and Aquaculture Science is a premier program and the only accredited community college program in the state of California to offer a certificate and Associate of Science Degree. The program prepares students for career opportunities and skills upgrade for work at public aquariums, interpretive/education and research centers, and a variety of pet and aquaculture related venues. Students may also elect to transfer for advanced degrees in related sciences. The latest techniques, information and equipment will be covered with emphasis on hands-on skills using our 3,000 ft<sup>2</sup> aquarium lab facility. Local public aquariums, research institutes and industry partners collaborate and extend opportunities for "on-site" workshops and internships. Students will acquire the diversity of specialized husbandry skills required to properly care for aquatic organisms.

## ARCHITECTURAL DRAFTING • 949/528-4427, 4704 or 4786

Prepare yourself for a profession in which design ideas become physical reality. The certificate program stresses the importance of understanding the natural and human environment, conceptual thinking, problem-solving, and people skills. The curriculum covers a broad range of subjects, including materials and methods of construction, design and planning, computer-aided drafting (CAD), professional practice, and the history of architecture. **Construction Inspection** focuses on code requirements, inspection procedure, and testing techniques for residential and commercial units. This is an excellent program for people who want to transition from builder/construction worker to inspector.

## AUTOMOTIVE TECHNOLOGY • 949/582-4996

If you're mechanically inclined and enjoy challenges, Auto Tech has courses and certificate programs for you. Classroom work is combined with hands-on training in a modern, well-equipped lab to give students a solid foundation in the servicing repair and maintenance of all types of automobiles. The Auto Tech programs are designed to prepare both male and female students for employment in the automotive industry. Students may also complete their Associate in Science or Associate in Arts Degree requirements and prepare to transfer to a four-year college. Coursework emphasizes the understanding and diagnosis of malfunctions in on-board computer controls, suspension, transmission, electrical, air-conditioning, fuel, engine, emission, alternative propulsion and brake systems. The following four certificate options are available: **Automotive Chassis Specialist** · **Automotive Engine Service Specialist** · **Automotive Engine Performance Specialist** · and **General Automotive Technician**.

## COMMUNICATION ARTS • (Radio, TV, Film) 949/582-4509 or 4209

Communication Arts offers a comprehensive and active learning environment that prepares students for meaningful and rewarding careers in radio, television, film and post-production. Students also receive the preparation they need to transfer to university production programs or to pursue upper-division study in the broader areas of media and communication. Communication Arts has developed a program that emphasizes current theory, practice, research, and especially hands-on creative activities. Students are challenged to expand their knowledge through real productions and receive a solid foundation that allows them to develop skills they will use throughout their careers-both as critical, lifelong learners and as content creators in a media-driven society. The coursework culminates with participation in internships at various radio/television stations and production facilities. Former students are working throughout the industry, and the program is a proven starting point for your career in entertainment.

## COMPUTER MAINTENANCE TECHNOLOGY • 949/582-4879

This program gives students an overview and basic understanding of computers, computer software, including Windows operating system, and hands-on experience installing and maintaining computer hardware. Job prospects are strong for entry level computer technologists and computer technicians in companies involved in the manufacture, installation, repair, maintenance, upgrading, or sales of personal computers and hardware for personal computers and computer networks.

## COSMETOLOGY • 949/582-4990 or 4541

Cosmetologists make people look and feel better about themselves. They cut and style hair, give permanents, apply color, and do weaves. With additional training, they can specialize in facials, makeup application, style wigs and hairpieces, and manicure nails. Our comprehensive cosmetology program requires 1,600 hours of training and can be completed in one year. Program graduates are then eligible to take the State Board of Cosmetology Licensing exam and begin their careers. A 600-hour course preparing students to become **cosmeticians** is also offered through Saddleback College. Successful completion of this course and successful completion of the State Licensing Examination will allow the graduate to work as a licensed cosmetician. Call for more information.

## DRAFTING TECHNOLOGY • 949/582-4427

The Drafting Technology curriculum develops a comprehensive understanding of basic drafting principles and the technical skills needed to design and create sketches and drawings with computer-aided drafting (CAD) systems. For people who like precision work that involves making sketches and drawings, a drafting career offers many possibilities in manufacturing, architectural and construction firms, public utilities, and governmental agencies. All coursework in the drafting technology program is reflective of industry standards.

## ECOLOGICAL RESTORATION • 949/582-4624

The certificate in Ecological Restoration trains students for a practical ecological application of appropriate techniques for a variety of ecological restoration projects. The projects may be carried out by industry or government agencies and may have specific legal requirements for implementation and proof of success. Students completing the certificate may be hired by local, county, state, or federal government; private consulting firms; or subcontractors hired by any of these agencies.

## ELECTRONIC TECHNOLOGY • 949/582-4879

Electronics and computers are fast-growing, evolving technical fields requiring a highly skilled, well-trained workforce. The applications of electronics and computers are almost limitless, extending to the fields of biomedical instruments and devices, audio, video and communication equipment, computer systems, military and aerospace systems, automotive and industrial control, electric power distribution, and others. Electronic Technology combines classroom work in the fundamental principles of electronics with extensive hands-on lab sessions. The following three certificate options are available: **General Electronic Technology** · **Analog and Digital Circuit Electronic Technology** · and **Digital Electronic Technology**.

## ENVIRONMENTAL STUDIES • 949/582-4624

Earn an Associate Degree in this interdisciplinary program that provides students with an integrated and critical knowledge of the natural environment and the relationships and interactions humans have with it. The Program provides students with the understanding that environmental challenges face every aspect of society, and it provides them with the skills needed to help solve these complex problems through cooperation and negotiation with the different and often competing stakeholders. The program combines classroom, laboratory, and field study instruction giving students a well-rounded preparation in the field of environmental studies.

## FAMILY AND CONSUMER SCIENCES • 949/582-4598 or 4541

Family and Consumer Sciences offers employment opportunities that help people to help themselves in improving the quality of their lives. Career opportunities include Independent Living Services, At-Risk Youth Programs, Programs for Older Adults, Self-Improvement Education, Product Sales, Manufacture's Representative, Customer Service Representative, and Store Manager. Recent research shows an FCS teacher shortage in California and the U.S. Further coursework and credentialing in FCS education can lead to teaching. **Consumer Services** prepares students for entry into the Consumer Affairs professional field. Employment opportunities link the consumer, business, and government and improves communication among all three groups. Career opportunities include Consumer Advisor, Consumer Energy Specialist, community and volunteer organizations, credit counselor, customer service - call center, product representative, public relations, and programs for older adults.

## FASHION • 949/582-4949

**Fashion Design and Advanced Fashion Design and Apparel Manufacturing certificates** prepare students for positions as designers, design room assistants, pattern makers, graders, sample makers, apparel manufacturing and fashion entrepreneurs, and for employment in the design, dressmaking/tailoring fields. Dressmaking and tailoring skills are utilized for positions in department stores, tailor shops, specialty shops, and for self-employment. Many of the clothing classes can be utilized as transfer courses for those wanting a Bachelor's degree in Fashion Design or Home Economics with a clothing and textiles emphasis. **Fashion Merchandising/Visual Fashion Merchandising certificates** offer professional training for individuals entering the fashion industry. The curriculum emphasizes the development of an individual's fashion sense and creativity. The program offers a comprehensive analysis of the manufacturing, distribution, buying and merchandising of fashion apparel, and emphasizes fashion promotion, coordination, visual merchandising and fashion show/events.

## FOODS AND NUTRITION • 949/582-4598 or 4541

**Culinary Arts, Advanced Culinary Arts, Catering, and Foods**-Join the exciting world of food-related careers through hands-on coursework and choice of various specialized certificate programs. Prepare for work in restaurant, hotel and hospitality operations, catering, and the promotion of foods, equipment and products. Employment opportunities include Chef, Cook, Specialty and Ethnic Restaurant Operation, Food and Beverage Service, Recipe Development Technician, Fast Foods Operations, and Food Service in schools, hospitals and day-care centers for the young and elderly. The program also offers coursework for professional improvement as well as transfer courses for students pursuing a Bachelor's degree in Family & Consumer Science with a Foods emphasis. **Nutrition**-Explore a field that can have lifelong benefits as well as offer career preparation. Nutrition-related careers include Dietary Aide, Healthy Food Preparation, Wellness Instructor, Lifestyle Coach, Sports Nutrition, Weight Management Counselor, Day Care for the youth and elderly, Non-medical Senior Care, Independent Living Service, After School Programs, At-Risk Youth Programs, Community and Volunteer Organizations, and Nutrition Product Sales.

## GRAPHIC COMMUNICATIONS • 949/582-4696

This certificate program prepares students for positions in the printing industry that will require the planning, creation, production and troubleshooting of graphic information destined for print and/or the web. Courses are designed to cover printing processes (including screen-printing, letterpress and offset lithography), their terminology, capabilities and limitations; graphic art areas of design/layout and composition; photo conversion; and, printing and binding.

## GRAPHIC DESIGN • 949/582-4696

Graphic designers shape our visual environment with words and images. The Saddleback graphic design program prepares students for continued studies in design as well as for practicing graphics design in public or private institutions or as entrepreneurs. Our program teaches students to visualize concepts, solve problems and skillfully design projects. The curriculum is designed to provide students with knowledge and skills necessary for employment opportunities with graphic design studios, advertising agencies, printing companies, manufacturing industries, newspapers, and businesses with in-house graphics operations. The program focuses on the integration of computer graphics technology with the media of traditional art disciplines such as drawing, design, color, illustration, printing, and photography. Students use state-of-the-art hardware and software as they learn the necessary skills needed to work in the design industry. Certificates are offered in three areas of concentration: **Graphic Design • Computer Graphics • Illustration/Animation.**

## HORTICULTURE • 949/582-4310 or 4913

The **Horticulture** program prepares students for careers related to the production and care of plants, trees, and shrubs commonly used in landscape design, retail and wholesale nurseries, and park departments. **Landscape Design** students train for careers in landscape design and maintenance, with specific attention paid to employment with municipal and county parks departments, industrial and commercial firms, residential construction companies, and private businesses.  
[www.saddleback.edu/ap/hort](http://www.saddleback.edu/ap/hort)

## INTERIOR DESIGN • 949/582-4615

Saddleback College offers an interdisciplinary Interior Design curriculum with three other Southern California community colleges that lets students take classes at any one of the participating campuses to receive full credit toward their certificate or degree. This regional program provides multilevel, accredited courses that prepare students with the competencies required to enter the Interior Design profession. The following beginning to advanced

levels provides a variety of choice for the design student. **Interior Merchandising (Level I) • Interior Design Assistant (Level II) • or Interior**

**Design Professional (Level III).** The Interior Design curriculum emphasizes both residential and commercial design. Theory and skills application related to color, space planning, lighting, products and materials, computer-aided design, design elements and principles, and professional practice are highlighted.

## MARINE SCIENCE TECHNOLOGY • 949/582-4624

This program prepares students for employment in the marine sciences and maritime trades. Classroom work is combined with hands-on lab and field activities. Field excursions may put to sea on board oceanographic vessels or under sail utilizing many innovative instructional opportunities. The college maintains a fleet of sailboats, contracts with local marine outfitters for large, ocean-going vessels, and houses a new aquarium facility circulating over 2,200 gallons of seawater. **Marine Science Technician certificate** trains students to work closely with marine scientists and researchers in their endeavors to manage this huge natural resource. The **Seamanship certificate** prepares students as operators of ocean-going vessels and to take Coast Guard licensing examinations.

## RAPID DIGITAL MANUFACTURING • 949/582-4831

The purpose of the Rapid Digital Manufacturing Program is to prepare technicians and pre-engineering students with the knowledge and skills necessary for employment in fields where 3D visualization and additive 3D product development are utilized. Those students who are currently employed in Architecture, Mechanical Engineering, Art/Animation, Medical Imagery, GIS, will take these courses to gain new skills for their industry.

## TRAVEL AND TOURISM • 949/582-4615

The Travel and Tourism curriculum prepares students for careers related to ticketing, reservations, major tourist destinations, fares and routes, tour promotion and planning, and modes of travel including air, ship, rail and automobile. This exciting, challenging and rapidly-growing field offers many opportunities for the well trained individual who has earned a certificate or Associate degree in the program.

- Preparing Students for AA/AS Degree and Occupational Certificates
- Offering Occupational Programs for Employment and Transfer
  - Providing Professional Skills Upgrading
  - State-of-the-Art Equipment and Facilities
  - Lifelong Learning Opportunities

For more information about these programs, please call the:

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949/582-4541

Visit our home page:

[www.saddleback.edu/ap/atas](http://www.saddleback.edu/ap/atas)

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Saddleback College is one of California's 109 community colleges, the largest system of higher education in the world. California community colleges offer low-cost, high-quality collegiate courses to all adults who can benefit from the instruction offered.

General Information • 949/582-4500

Admissions • 949/582-4555

Email • [info@saddleback.edu](mailto:info@saddleback.edu)

Web Site • [www.saddleback.edu](http://www.saddleback.edu)

Saddleback College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges.

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