

# California Community Colleges Baccalaureate Degree



## RECOMMENDED PILOT PROGRAMS

### **Antelope Valley College - AIRFRAME MANUFACTURING TECHNOLOGY**

#### **Summary**

The proposed program meets the need in the aerospace industry for multi-skilled individuals who understand, perform, and serve as first-line leads in the major processes of manufacturing the structural components of an aircraft for civilian and military specifications. The program's curriculum addresses airframe manufacturing, aircraft fabrication (structures and composites), electronics, and welding.

### **Bakersfield - INDUSTRIAL AUTOMATION**

#### **Summary**

Bachelor's degree in Industrial Automation: The proposed program responds to today's industry needs for engineering teams involved in developing new products or systems. This team is typically composed of engineers, technologists and technicians. Engineers apply their knowledge of mathematics and science to develop ways to economically utilize natural resources for the benefit of mankind through a wide spectrum of activities including the conception, design, development and formulation of new systems and products. Technologists are typically graduates of baccalaureate-level programs that emphasize the application of scientific and technical knowledge; they participate in activities surrounding applied design, manufacturing, product assurance, sales and project management. Technicians work with equipment, assembling, repairing and testing devices or systems based on technical skills rather than scientific knowledge used in the original design.

### **Crafton Hills - EMERGENCY SERVICES & ALLIED HEALTH SYSTEMS**

#### **Summary**

This program is designed to respond to both existing and emerging workforce needs in an evolving healthcare system that is faced with challenges such as caring for an aging population, the implementation of the Affordable Healthcare Act, and outbreaks of potentially deadly diseases such as Ebola. In the Inland Empire, these issues are exacerbated by inadequate facilities and staffing shortages.

The degree takes a cross-discipline approach and builds on related education and experience from a variety of fields. Students with backgrounds as emergency medical technicians, paramedics, respiratory therapists, nurses, radiologic technicians, and others will learn to solve complex problems across the healthcare industry. This approach will prepare graduates to analyze and respond to broad gaps in the system. For example, the Inland Empire has experienced a 10% increase in bed delay - the time from arrival at the hospital to actual admission. A new kind of healthcare professional with a systems view is needed to resolve these types of problems. This degree has been endorsed by industry and educational partners, responds to an identified priority sector as established by the State Chancellor's Office, and is sustainable.

## **Cypress - MORTUARY SCIENCE**

### **Summary**

This new degree would offer upper division academic and vocational instruction in Mortuary Science to students, as well as bring expanded employment opportunities to Southern California and throughout the state in the funeral service industry. The overarching goal of the Program is to enhance, not supplant, the current Associate in Science degree program. The Program would be unique to California since currently there are no other colleges or universities that offer this type of degree in the Western United States.

## **Feather River - EQUINE INDUSTRY**

### **Summary**

This program fills a need in California's \$42.6 million agriculture industry, which creates more than 1,400 ranching and animal science related positions each year. The future of this vast enterprise depends in part on the ability of the state's educational institutions to provide top-quality training for future generations of ranchers and agricultural managers who will fill the large number of ranching and animal science related positions each year. Agricultural employers, ranch owners, and rural small businesses are seeking applicants that have advanced business and animal science skills. New entrants seeking careers on ranches or related occupations are expected to have the academic training, deep-seated soft skills and the practical "horse sense" to make complicated management decisions. According to the Bureau of Labor Statics, ranching and land management has grown so complex that ranchers and agricultural managers now are expected to have a bachelor's degree in agriculture or a related field. In other words, five years of on-the-farm training is rapidly being replaced with the prerequisite of a baccalaureate degree.

## **Foothill - DENTAL HYGIENE**

### **Summary**

The first two years of the baccalaureate dental hygiene degree will be the general education courses required for the major and the supporting science and social science courses, which include: English, math, chemistry, anatomy and physiology, microbiology, nutrition, pharmacology, health, psychology, sociology, communication and humanities for a total of 86 quarter units for the first two years of the program. The second two years of the dental hygiene bachelor's degree pilot program would be 94 units of dental hygiene courses, inter-professional allied health courses, and upper division general education.

Upper division general education and writing requirements will be met in the senior year dental hygiene research courses. The dental hygiene curriculum currently has two dental health/research courses. We plan to add a third research course in the senior year to bring depth to the baccalaureate level. The senior year dental hygiene research/public health courses will include a capstone project. Students will create a comprehensive a-portfolio over the junior and senior year of the dental hygiene program, documenting their projects, research papers, patient competencies, community service and professional development. This curriculum plan will bring content up to bachelor's degree level.

## **MiraCosta - BIOMANUFACTURING**

### **Summary**

The proposed baccalaureate degree program in biomanufacturing will prepare students for employment in the manufacturing sector of the biotechnology industry, which includes biotherapeutics, diagnostics, supplies and services, and industrial products. The degree will prepare graduates for technical and quality assurance/ control-related positions. Biomanufacturing leverages the understanding of biology to manufacture products or perform services that impact health, agriculture, the environment, and industrial needs. As a product or service progresses from discovery research through development and into production, the science becomes increasingly less isolated. Through a transformation of scale, process control, and compliance, the science of biomanufacturing lives across the product and process lifecycle within a quality management system. The applied biomanufacturing baccalaureate degree will prepare students for work within the biotechnology industry in the unique environment of biological production where the science thrives in partnership with quality and compliance.

This degree program explicitly emphasizes the applied, quantitative analysis of biomanufacturing-process design and performance. In addition, students completing the program will have sufficient preparation to sit for certification exams from the American Society for Quality. Certification provides valuable, third- party recognition of industry-relevant skills, abilities, and knowledge.

## **Modesto - RESPIRATORY CARE**

### **Summary**

The proposed baccalaureate program will be comprised of two programs. The first section or two year section will be the traditional Respiratory Care program preparing the graduates for the Registered Respiratory Therapy (RRT) exam and subsequent licensure by the Respiratory Care Board of California. The students completing this section will receive an Associate of Science degree and be able to enter the workforce as licensed respiratory care practitioners. The ability of these students to work in their career field while pursuing their baccalaureate degree will bring increased relevance to their studies.

The second section is the proposed baccalaureate degree in Respiratory Care which will build upon the depth of understanding in key areas of the field and expand the scope of the education of the student. The second section will include curriculum in research, education, management, and supervision. The second section of the program will also include additional education in higher levels of clinical practice such as adult critical care, pediatric critical care, neonatal critical care, pulmonary function technology, cardiopulmonary diagnostics, polysomnography, and other key clinical areas, as needed in the community.

## **Rio Hondo - AUTOMOTIVE TECHNOLOGY**

### **Summary**

This program will build on the college's existing Associate of Science (A.S.) degree program in Automotive Technology. Our current program—which is well aligned with the automotive industry both regionally and nationally—provides a solid foundation for the development of the new bachelor's program.

Successful candidates for employment within organizations requiring a baccalaureate degree in this field need high level Automotive Technology skills and knowledge. Graduates need to be technically competent and possess strong interpersonal skills, such as the ability to communicate effectively, solve problems, work in teams, and pursue continued professional development. The primary goal of the proposed Bachelor of Science in Automotive Technology Degree (ATD) is to provide the automotive industry with employees with these skills. Students will receive training in various business, management and technical courses such as Managerial Accounting, Leadership, Marketing, Advanced Vehicle Systems Design and Performance. Other courses will emphasize soft skills, such as communication, business and technical writing, and human relations.

## **San Diego Mesa - HEALTH INFORMATION MANAGEMENT**

### **Summary**

The proposed applied baccalaureate degree program in Health Information Management (HIM) at San Diego Mesa College is designed to provide accessible, high-quality industry-approved instruction that prepares graduates to sit for the national certification exam qualifying them to be a Registered Health Information Administrator (RHIA). RHIA certification is the minimum requirement for employment in the occupations that manage and administer electronic health records.

Graduates will be eligible to sit for the national certification exam sponsored by the American Health Information Management Association (AHIMA). The successful outcome of this exam results in licensure as a RHIA, an essential qualification for employment. The proposed HIM program is designed to meet the unit and content requirements in the California Code of Regulations. In addition, the new program will meet the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC/WASC) standards as well as Council for Accreditation of Health Information and Informatics Management (CAHIIM) accreditation standards.

## **Santa Ana - OCCUPATIONAL STUDIES**

### **Summary**

The baccalaureate program proposed by Santa Ana College (SAC) is Occupational Studies. Occupational Therapy Education, consisting of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA), is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). Currently, ACOTE is considering an elevation of the requirement for the entry level of OT from a Master's degree to a Doctorate, with a recommended start date of 2025. With the large labor market demand in this field (as will be demonstrated later) coupled with the huge demand for this program, as evidenced by large wait lists of SAC students each semester, a pipeline already exists that would further support creation of this proposed baccalaureate option for interested students.

## **Santa Monica - INTERACTION DESIGN**

### **Summary**

This program will help meet the overwhelming demand for the skill set in this critical sector of the state's industry. While student demand for a design degree in this emerging field is robust, opportunities to earn one are severely limited.

The appearance of the first iPhone® in 2007 marked a dramatic shift in the fields of graphic and web design. Since then, technology and design are converging like never before with the proliferation of innovations such as e-commerce, mobile apps, smartphones, medical devices, wearable technology, connected appliances, and self-driving cars. A new breed of designer who understands the user and a user-centered approach is required.

## **Shasta - HEALTH INFORMATION MANAGEMENT**

### **Summary**

This program fills a need in a segment of the healthcare field defined as the practice of acquiring, analyzing and protecting digital and traditional medical information vital to providing quality patient care. A baccalaureate degree in Health Information Management will offer a wide range of career advancement options, plus opportunities to those students seeking a healthcare profession that combines interests in computer science, business, management, legal procedures, and research. As health information managers, they will be able to take leadership roles in managing confidential medical information systems that serve the needs of patients, healthcare providers and administrative staff. Careers in health information management can be found in a wide variety of settings, such as: hospitals, physicians' offices, clinics and other medical or mental health facilities, pharmaceutical companies, educational institutions, insurance companies, government agencies and vendor firms

## **Skyline - RESPIRATORY THERAPY**

### **Summary**

The proposed baccalaureate program at Skyline College would build upon its well- established Associate of Science (AS) program in Respiratory Therapy. Students will complete Commission on Accreditation for Respiratory Care (CoARC) requirements for the associate degree as well as complete required lower division general education courses. A minimum of 17 units of upper division major course work will build upon the 52 units of lower division major course work and will include employer identified skills and abilities in the areas of cardiopulmonary pathophysiology, respiratory disease management, health education, leadership and management, and research principles. The baccalaureate degree will also include a minimum of 9 units of upper division general education courses as per CSU guidelines. Additionally, 26 lower division general education units will count toward the overall units required for the baccalaureate. This is further described in sections 3E and 3F.

## **West Los Angeles - DENTAL HYGIENE**

### **Summary**

This program proposes to develop, implement, and operate a pilot Bachelor of Science degree program in Dental Hygiene (BSDH). The program will provide a 120-unit BSDH program for new students and a 30-unit BSDH degree completion program for dental hygienists with an Associate of Science in Dental Hygiene.

This new program builds on an existing strong Associate degree program in Dental Hygiene that has consistently been one of the most successful community college Dental Hygiene programs in the nation.