



# EXTENDED EDUCATION

Presented By:

Gary Berg, Dean  
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## Overview

The Extended Education unit per our mission statement extends the mission of the University throughout the community by providing access to quality education especially for non-traditional students and local organizations. Unit was launched just prior to the opening of the University in 2002 with the Summer College program for children of migrant workers, contract for MSW, and initial non-degree certificate programs. Currently, Extended Education offers six degree programs, eleven certificate programs, custom education, individual degree credit courses, as well as non-credit and grant supported education and enrichment programs. Educational effectiveness is assessed through established academic assessment and evaluation procedures and on-going community and industry advisement which is formally provided through a Senate Committee and informally through contact with local business and public sector leaders.

As a complex administrative unit within the university serving a variety of stakeholders, Extended Education uses an assessment approach incorporating standards and tools from multiple national organizations including the Western Association of Schools and Colleges (WASC), the Council for Adult and Experiential Learning (CAEL), and the Council for the Advancement of Standards in Higher Education (CAS). These policies and procedures are designed to provide a process of continual improvement, as well as concrete evidence of educational effectiveness. In addition to assessing student learning, the plan is intended to evaluate the impact on the community, the responsiveness of educational programs, track the quality of student services and electronic delivery of courses, and provide regular review of programs. Finally, an overall scorecard of effectiveness is used to summarize key effectiveness areas of Extended Education activity.



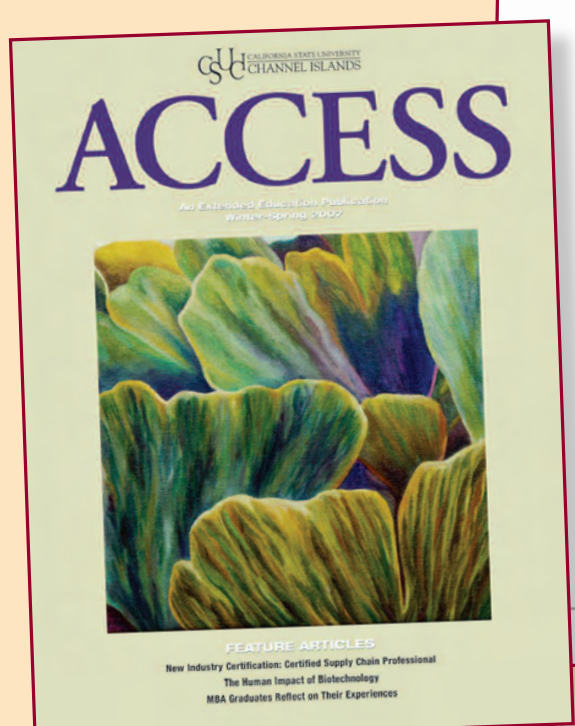
FROM THE DESK OF THE DEAN

### Graduating Students with International Perspectives

Our mission at CSU Channel Islands states that we aim to graduate students with international perspectives. We're that commitment internally as to exactly what this means. This past spring, I attended an association of international educators (NAIIE) conference in Montreal and gained some insight into the meaning of our mission. Unlike at other academic conferences, usually those for university administrators, I was struck by the high-minded level of the discussion that revolved there. I was drawn like a United Nations Peace Prize laureate, Margot Marshall, spoke about her work with the Green Belt Movement. Dr. Marshall is professor who founded the movement which gave young women of African nations while helping to develop the rural economy, poverty relief fund. Although hindered by a very sizeable political atmosphere, her plans succeeded, and assistant minister of the environment. In her speech, Dr. Marshall is a member of the Academy of Sciences, with her perhaps the best explanation of what we mean here at CSU Channel Islands by graduating students with international perspectives. When Marshall said that students "We are living in very interesting times. Times that call for us to understand each other genuinely and work together across cultures."

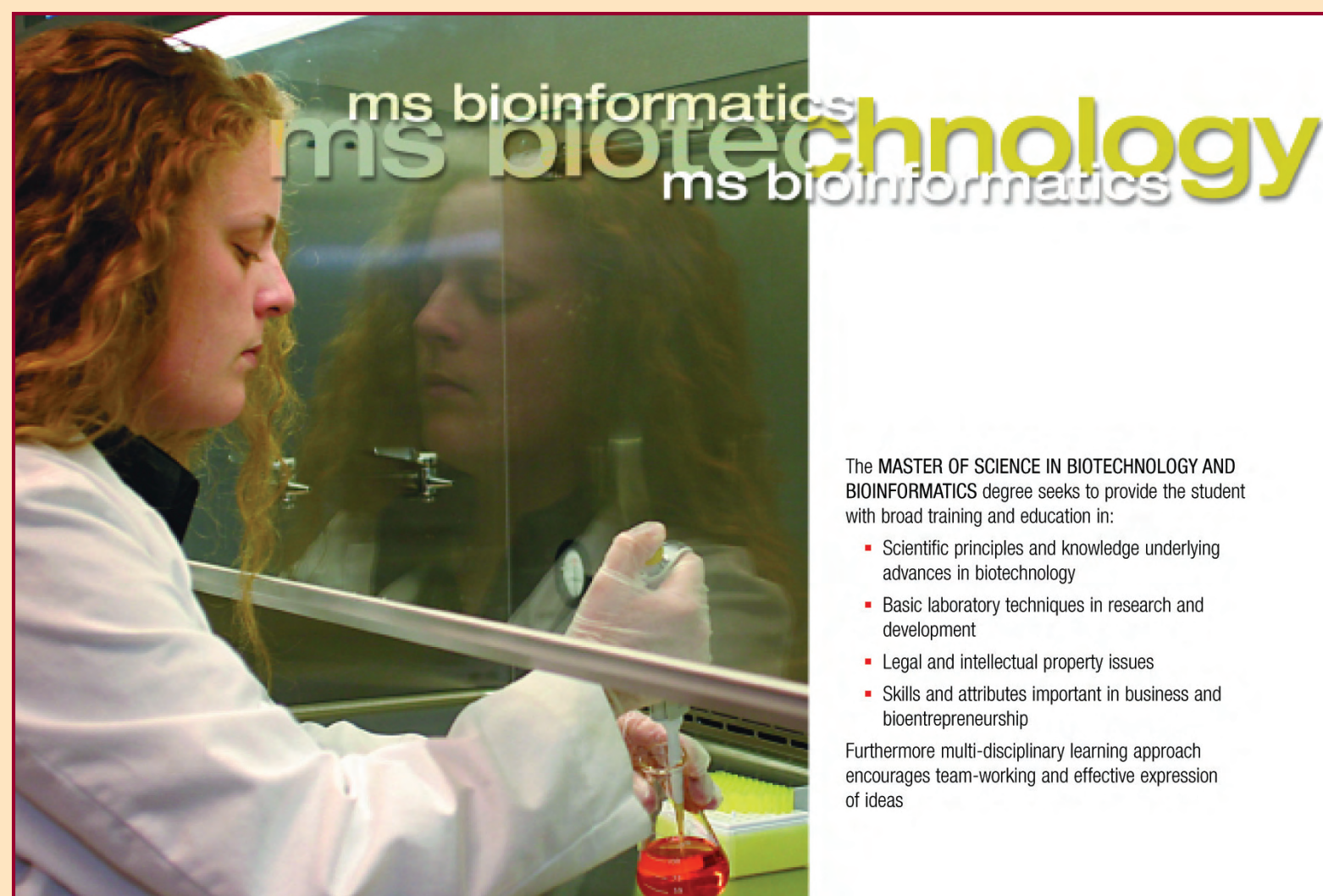
Education we're very conscious of providing international experiences for students. In addition to being the first academic unit in the University to accept international students, we are sending our second group of MBA students on a travel study program in China in the Spring Semester. Through our Office of Global Learning, we have a group of students in Northern Italy last year and have planned a trip to Rome next Spring. While our ambition is great and our efforts necessarily limited at the moment, I believe that it is an important statement of our collective values in regard to providing international perspectives for our students to make this attempt at the start of the university. Not unlike Dr. Marshall's movement, the larger meaning of the effort to encourage a global understanding in our students is bigger than the initial number of students involved. As the tide is closing at the conference, the planting of seeds is the planting of ideas. With the simple step of digging a hole and planting a tree, we plant hope for ourselves and for future generations.

Gary A. Berg, Ph.D.  
Dean of Extended Education



## Programs

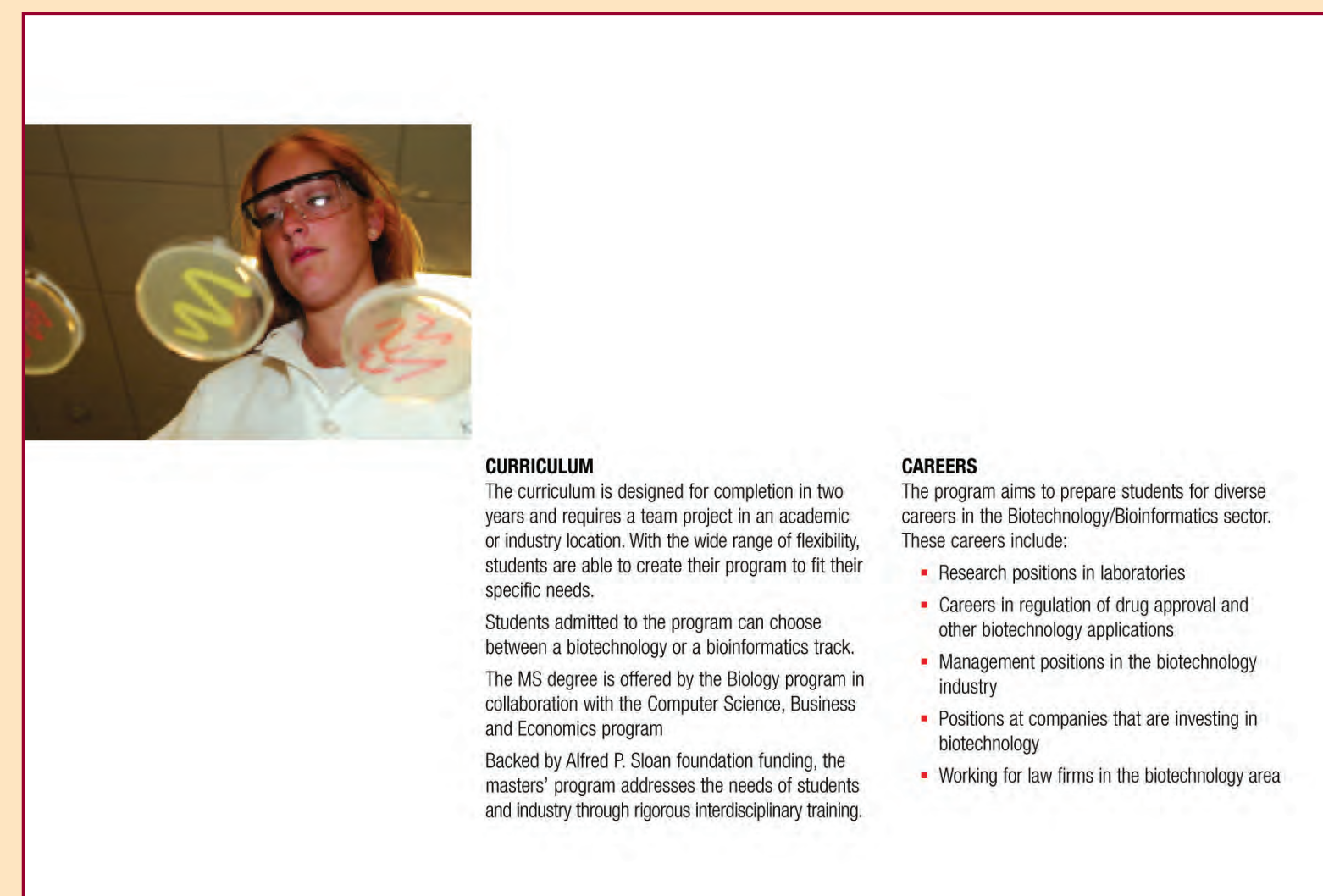
### MS IN BIOTECHNOLOGY



The MASTER OF SCIENCE IN BIOTECHNOLOGY AND BIOINFORMATICS degree seeks to provide the student with broad training and education in:

- Scientific principles and knowledge underlying education in biotechnology
- Basic laboratory techniques in research and development
- Legal and intellectual property issues
- Skills and attributes important in business and entrepreneurship

Furthermore, multi-disciplinary learning approach encourages team working and effective expression of ideas



**CURRICULUM**  
The curriculum is designed for completion in two years and requires a team project in an academic or industry location. With the wide range of biotechnology students are able to create their program to fit their specific needs. Students admitted to the program can choose between a biotechnology or a bioinformatics track. The MS degree is offered by the Biology program in collaboration with the Computer Science, Business and Economics program. Backed by Alfred P. Sloan Foundation funding, the students' program addresses the needs of students and industry through rigorous interdisciplinary training.

**CAREERS**  
The program aims to prepare students for diverse careers in the biotechnology/bioinformatics sector. These careers include:

- Research positions in laboratories
- Careers in regulation of drug approval and other biotechnology applications
- Management positions in the biotechnology industry
- Positions at companies that are investing in biotechnology
- Working for law firms in the biotechnology area



**CORE COURSES**  
CSU Channel Islands: Master of Science in Biotechnology and Bioinformatics offers students a solid and cutting edge group of core courses that provide for exciting and rewarding careers in next-generation science and technology.

**FOR BIOTECHNOLOGY EMPHASIS: REQUIRED COURSES:**

- MIT 471 Project Management
- BINF 500 DNA and Protein Sequence Analysis
- BINF 502 Techniques in Genomics and Proteomics
- BINF 503 Biotechnology Law and Regulation
- BINF 504 Molecular Cell Biology
- BINF 505 Molecular Structure
- BINF 506 Team Project
- BINF 601 Seminar Series in Biotechnology and Bioinformatics

**ELECTIVES:**

- BINF 508 Molecular Evolution
- BINF 509 Pharmacogenomics and Pharmacoproteomics
- BINF 510 Advanced Immunology
- BINF 511 Plant Biotechnology
- MIT 421 Human Resource Management

**FOR BIOINFORMATICS EMPHASIS: REQUIRED COURSES:**

- MIT 471 Project Management
- BINF 500 DNA and Protein Sequence Analysis
- BINF 502 Techniques in Genomics and Proteomics
- BINF 503 Biotechnology Law and Regulation
- BINF 510 Database Systems for Bioinformatics
- BINF 511 Computational Genomics
- BINF 512 Programming for Bioinformatics
- BINF 506 Team Project
- BINF 601 Seminar Series in Biotechnology and Bioinformatics

**ELECTIVES:**

- BINF 512 Algorithms for Bioinformatics
- BINF 514 Statistical Methods in Computational Biology
- BINF 515 High-Throughput Analysis and Pattern Recognition
- MIT 421 Human Resource Management



**REQUIREMENTS**  
Applicants must have a bachelor's degree or higher from an accredited university with competence in a science field related to the chosen area of emphasis. The applicant's undergraduate transcript and GPA should reflect the ability to handle advanced science course work (usually a 3.0 or higher in science courses). All applicants must also submit scores from the general GRE or MCAT test. Additionally, two letters of recommendation along with a two-page essay are required.

## PRODUCTION AND INVENTORY MANAGEMENT CERTIFICATE (CPIM)



**EARN A PRODUCTION AND INVENTORY MANAGEMENT CERTIFICATE AT CSUCI**  
Co-sponsored by the Institute Supply Chapter of APICS, these courses combine a practical, hands-on approach with core principles and practices used in the industry today. All courses are presented for a modest benefit—to enhance your professional career goals and to assist you in preparing to take the national APICS CPIM (Certified in Production and Inventory Management) Certification Exam modules. Note that students must successfully pass the five national examinations to earn the CPIM designation. All teaching materials, tests and handouts are APICS-published and meet the rigorous standards of this complex field.

### WHO SHOULD ATTEND:

- Individuals currently in manufacturing and industry desiring production/inventory control knowledge and job skills
- Executives and Control of Operations
- Desiring Scheduling and Planning
- Professionals desiring new career goals in the manufacturing environment
- Strategic Management of Resources

### CERTIFICATE OBJECTIVES:

Students will...

- Acquire current information on the latest resource planning and practice
- Obtain the knowledge needed for efficient manufacturing operations
- Receive praise and industry recognition

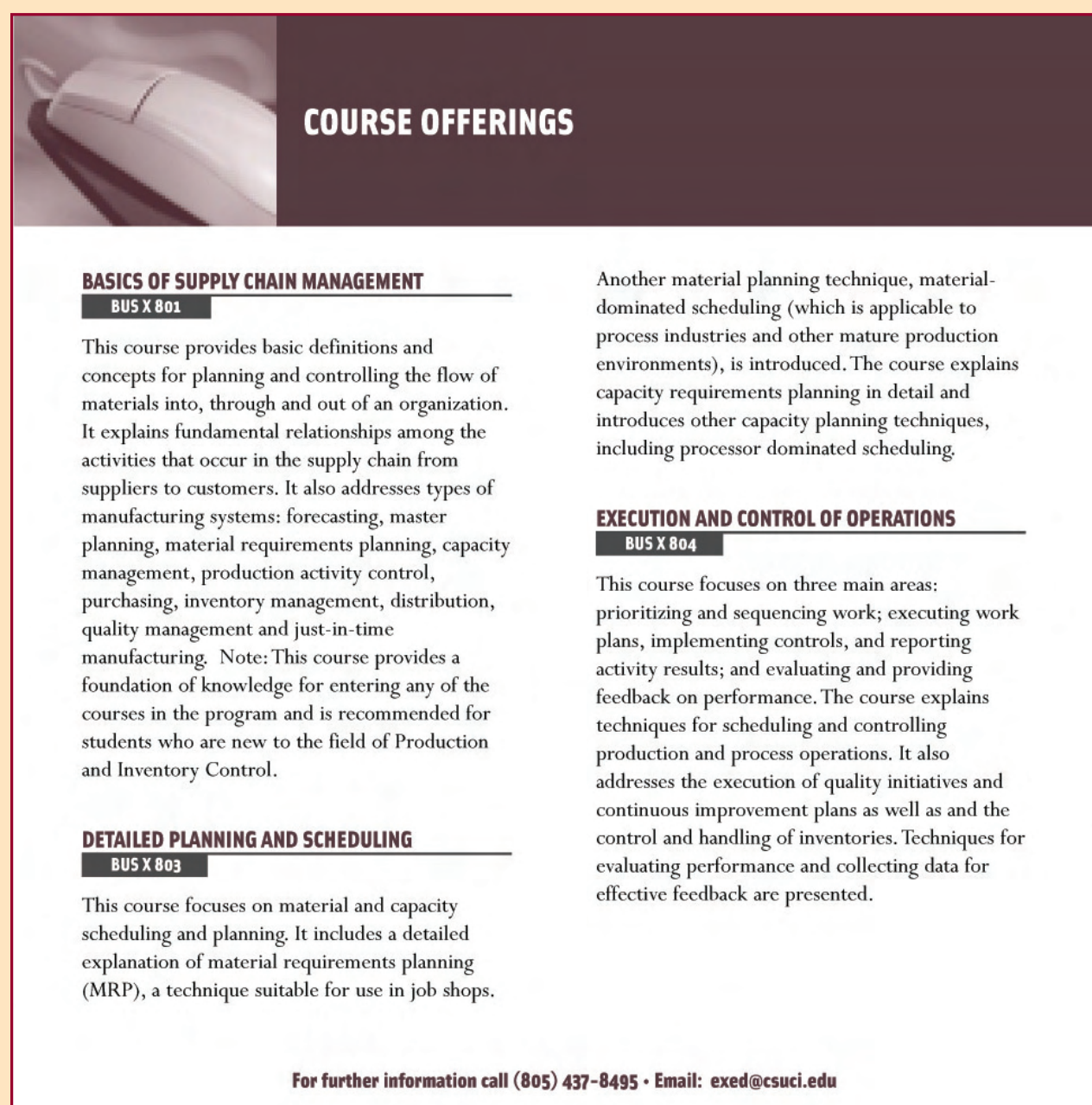
### HOW TO EARN YOUR CERTIFICATE:

Successfully complete the five required courses:

- Basics of Supply Chain Management
- Execution and Control of Operations
- Detailed Scheduling and Planning
- Master Planning of Resources
- Strategic Management of Resources

**BENEFITS TO COMPANIES:**  
Employees will appreciate the skilled employees this program will certify. If you are currently working in production and inventory control, you will upgrade and enhance the professional skills that increase your value to your organization.

For further information call (805) 437-8495 • Email: [exam@csuci.edu](mailto:exam@csuci.edu)



### BASICS OF SUPPLY CHAIN MANAGEMENT

BINF 480

This course provides basic definitions and concepts for planning and controlling the flow of materials into, through and out of an organization. It explains fundamental relationships among the activities that occur in the supply chain from suppliers to customers. It also addresses types of manufacturing systems, forecasting, master planning, material requirements planning, capacity management, production activity control, purchasing, inventory management, distribution, quality management and just-in-time manufacturing. Note: This course provides a foundation of knowledge for entering any of the courses in the program and is recommended for students who are new to the field of Production and Inventory Control.

### DETAILED PLANNING AND SCHEDULING

BINF 481

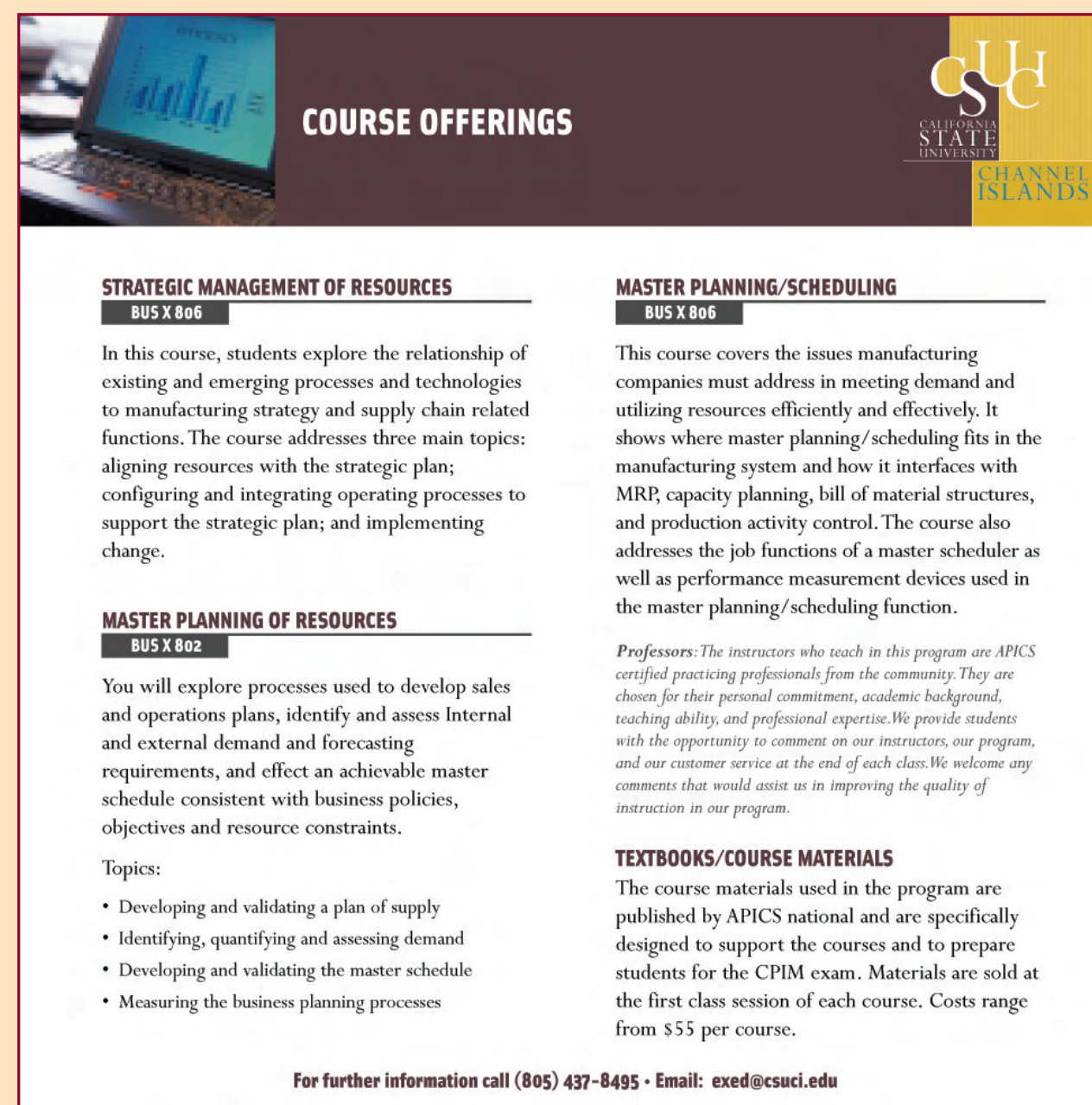
This course focuses on material and capacity scheduling and planning. It includes a detailed explanation of material requirements planning (MRP), a technique suitable for use in job shops.

Another material planning technique, material-dominated scheduling (which is applicable to process industries and other master production environments), is introduced. The course explains capacity requirements planning in detail and introduces other capacity planning techniques, including process-dominated scheduling.

**EXECUTION AND CONTROL OF OPERATIONS**  
BINF 482

This course focuses on three main areas: prioritizing and sequencing work; executing work plans; implementing controls; and reporting activity results, and evaluating and providing feedback on performance. The course explains techniques for scheduling and controlling production and process operations. It also addresses the execution of quality initiatives and continuous improvement plans as well as and the control and handling of inventories. Techniques for evaluating performance and collecting data for effective feedback are presented.

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### STRATEGIC MANAGEMENT OF RESOURCES

BINF 483

In this course, students explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. The course addresses three main topics: aligning resources with the strategic plan; configuring and integrating operating processes to support the strategic plan; and implementing change.

### MASTER PLANNING OF RESOURCES

BINF 484

You will explore processes used to develop sales and operations plans, identify and assess internal and external demand and forecasting requirements, and effect an achievable master schedule consistent with business policies, objectives and resource constraints.

### TEXTBOOKS/COURSE MATERIALS

The course materials used in the program are published by APICS national and are specifically designed to support the courses and to prepare students for the CPIM exam. Materials are sold at the first class session of each course. Costs range from \$55 per course.

### MASTER PLANNING-SCHEDULING

BINF 485

This course covers the issues manufacturing companies must address in meeting demand and fulfilling resource efficiency and effectively. It shows where master planning/scheduling fits in the manufacturing environment. It is interfaces with MRP, capacity planning, bill of material structures, and production activity control. The course also addresses the job functions of a master scheduler as well as performance measurement devices used in the master planning/scheduling function.

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