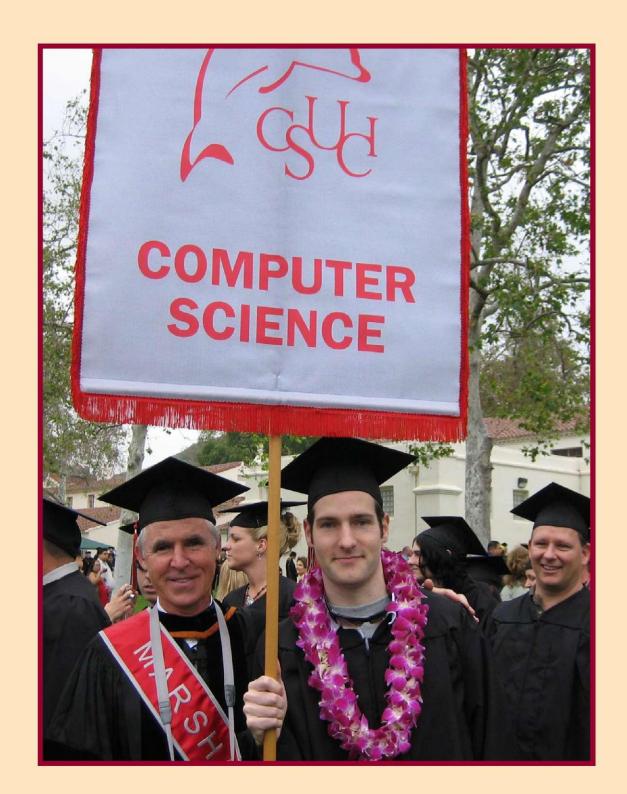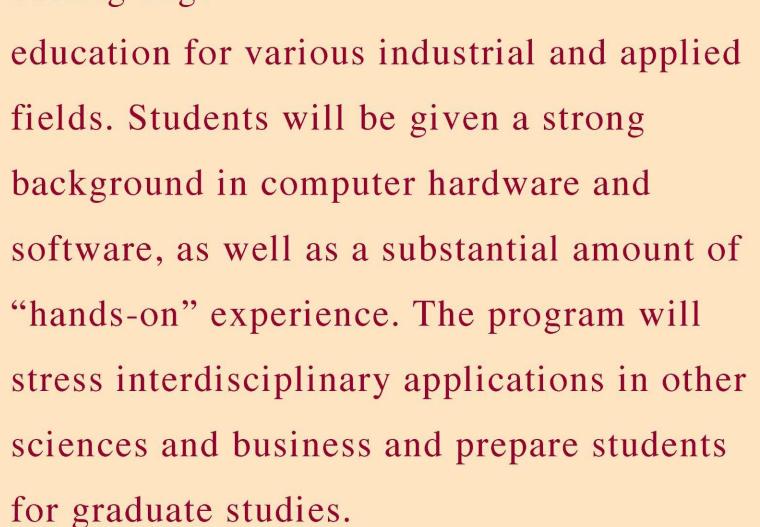# COMPUTER SCIENCE

Presented By:

William J. Wolfe, Ph.D., Professor and Chair, Computer Science Program

Peter Smith, Ph.D., Professor of Computer Science

AJ Bieszczad, Ph.D., Director of the Graduate Program, Professor of Computer Science

Yasi Behpour, Computer Science Information Technology Consultant

Degree Overview

- **Bachelor of Science in Computer Science**
- **Minor in Computer Science**
- **Master of Science in Computer Science**
- **Bachelor of Science in Information Technology**

The Computer Science degree offers the latest cutting edge education for various industrial and applied fields. Students will be given a strong background in computer hardware and software, as well as a substantial amount of "hands-on" experience. The program will stress interdisciplinary applications in other sciences and business and prepare students for graduate studies.

Learning Outcomes

Students graduating from the Computer Science program will be able to:

- Demonstrate critical thinking and problem solving skills by identifying, evaluating, analyzing and presenting fundamental software solutions and their applications

- Demonstrate the knowledge of current computing practices and broad technology use in industry and society, including a working knowledge of software development techniques

- Be cognizant of emerging new technologies and industrial practices connected to the computer industry

- Demonstrate communication, research and cooperation skills by working effectively with others in interdisciplinary group settings - both inside and outside the classroom; and

- Demonstrate a sense of exploration that enables them to pursue rewarding careers in high- tech and bio-tech industries with life-learning.

Careers

The program will prepare students for careers in high-tech, computer and Internet-driven industries, where interdisciplinary, dynamic and innovative professionals trained in the latest technologies are increasingly sought.

Accomplishments

- Development of a Computer Game Design and Development Minor. This involved the creation of 3 new computer science courses and the close collaboration with the Art, Mathematics and Business faculty.

- Inauguration of the Masters in Computer Science Program. This program is administered by Extended Education with the help of Professor AJ Bieszczad. It began in Fall 2006 and currently has about 15 students in the program.

- Inauguration of the Bachelors of Science in Information Technology Program. This program is also administered by Extended Education and supported by a consortium of community college professors (CREATE). The program currently has about 17 students.

- First Annual CSUCI Student Programming Contest. This contest was designed and implemented by Professor AJ Bieszczad and Lecturer Anna Bieszczad. Now we have the first "CSUCI Programming Guru". This was IRA supported

- 2005 ACM Contest Participation. Professor AJ Bieszczad and Lecturer Anna Bieszczad coached and escorted students to the competition at UC Irvine in Fall 2005. Approximately 10 students participated and made a respectable showing for the CS program.

Assessment Activities

This year, the Computer Science program chose to assess the degree to which students demonstrate critical thinking and problem solving skills by identifying, evaluating, analyzing and presenting fundamental software solutions and their applications. They decided to assess the selected outcome by seeding final examinations in two key courses with questions selected from the AP Examination in Computer Science, GRE in Computer Science, and ETS Major Field Test in Computer Science. The data revealed that students was generally weaker than they had expected. Consequently, Computer Science has begun to implement a course of action to improve student's performance in this area and in their assessment of student performance in this area. More specifically, they have decided to add a Capstone course in which "all majors will be required to complete the project at CSUCI and, as a culminating experience, it will help us better assess the whole of the major. We expect to consult with other programs regarding tools for assessing capstone projects."