

# **UMR Computer Science Department Strategic Action Plan (2006-2011)**

## **Mission**

The mission of the Computer Science Department at University of MO – Rolla is to help students reach their full potential by providing them the knowledge and preparation necessary to meet the challenges of designing and developing computing software systems and algorithms. Students receive excellent technical education as well as learning experiences specifically designed to develop the problem solving skills so necessary for success in the computing profession. To fulfill this mission, the Computer Science Department strives for excellence in providing students with the highest quality

- Classroom learning experiences
- Leading edge research experiences (undergraduate & graduate)
- Learning experiences outside the classroom (internships, co-ops, field-trips, business/industry interactions, etc.)
- Professional experience (professional organizations, interaction w/ professionals at both on and off campus activities)
- Credential of graduating from a department that is highly respected in the world of computing

## **Goal**

UMR CS Department will be one of the top 6 departments among the CS Departments of the technological research universities in the United States by 2012<sup>†</sup>.

## **Strategic Action Plan**

To reach our main goal stated above, the following are the sub goals and the actions to be implemented (in no particular order) by the Computer Science Department in the next 5 years:

1. Increase enrollment
  - a. Improve the quality of student advising; institute an evaluation process to measure the quality of advising; encourage faculty to attend advising workshops
  - b. Prepare nice departmental brochures and handbooks for recruitment and improve the online pages on the web
  - c. Increase retention
  - d. double the number of female students in CS within 5 years.

<sup>†</sup>After MIT, Carnegie Mellon, Georgia Tech, Cal Tech, and RPI

2. Offer new interdisciplinary graduate degrees
  - a. Professional Science Masters Degree in CS (PSM in CS)
  - b. M.S. in Bioinformatics
3. Increase the number of graduate certificate degrees offered via distance education
  - a. Create incentives for the faculty teaching distance classes
4. Offer a Distance M.S. degree in CS
  - a. Create incentives for the faculty teaching distance classes
  - b. Establish company contacts to provide a continuous supply of distance students
5. Improve the quality of teaching
  - a. Increase CS Department's average CET scores to 3.0
  - b. Encourage junior faculty and the faculty with poor teaching evaluations to attend teaching workshops and seminars
  - c. Establish an effective mentoring process for junior faculty; encourage them to visit the classes of good teachers.
6. Increase research performance and reputation by
  - a. bringing in more research grants from external funding agencies
  - b. hiring quality junior faculty,
  - c. hiring a world-class researcher for the newly created endowed chair position,
  - d. rewarding and recognizing research performance,
  - e. reducing the teaching load for the junior and research-active faculty,
  - f. increasing the quality of the graduate students in the program and developing practices and policies for attracting and keeping PhD students in our graduate program
  - g. concentrating on interdisciplinary collaborations of national significance.
  - h. Reinstating internal departmental review of proposals
  - i. Increasing funding agency contacts.
7. Consistent with the above goal, generate a total of \$1.6 Million per year in research funding by 2012 and increase the proposal funding success rate to 15% of the dollars proposed.
8. Build strong relationships among our alums, students, the Department and the University
  - a. Continue to sponsor the activities; CS Awards Banquet, CS Homecoming, annual CS Advisory Board meeting, annual CS Academy meeting and the induction ceremony, annual pizza party, etc.
  - b. Continue to raise development funds through Phonathon
  - c. Publish an online newsletter

9. Improve the condition of the classrooms, labs, and the meeting rooms in the CS Building
  - a. Build an endowment which will provide funds to buy special equipment and furniture for the CS labs, classrooms and meeting rooms.
  - b. Equip classrooms in the CS building with multimedia capabilities
  - c. Renovate CS 327 – the conference and meeting room
  - d. Start a major campaign to raise funds for a new building for the CS Department.
  
10. Through a national search process, hire a chairperson for the CS Department who is an energetic and productive person, an outstanding teacher and a researcher, and who is willing to take up the responsibility of implementing the action items stated above.