

Mathematics & Computer Science Department
Summary of Catalog Changes

Undergraduate Catalog

| Academic Year | Change | Motivation | Outcome |
|----------------------|---|--|---|
| 1996-1997 | Added topics courses to COSC at the 2000 and 3000 level. | Offer flexibility in rapidly changing field and to identify the complexity and depth of topics courses by course numbering. | While the topics courses did offer the desired flexibility, they were sometimes used to circumvent degree requirements. The topics courses were removed or restricted to departmental approval 2003-2004. |
| 1998-1999 | Switched core programming language from Pascal to C++ | Decrease use Pascal. Fewer texts. Increase use C++ in industry. Need to introduce object-orientation to the program. | Positive response from students and employers. Challenge for Instructors. |
| 1998-1999 | Added a new capstone pair COSC 4250 Object-oriented Design and COSC 4260 Object-oriented Programming. | Switch to C++, and object-oriented language made it possible to offer this capstone pair. Provided extended course work for students with a strong interest in programming. | The OO capstone pair was successfully implemented, maintains sufficient enrollments and continue to serve students. |
| 1999-2000 | Removed COSC 2100 Pascal for Experienced Programmers. | With program shift to C++, the course was no longer applicable. | No problems. |
| 2000-2001 | Added COSC 2250 to required core courses. | Students needed additional instruction time due to switch to C++. | Improved students mastery of C++ and better prepared students for COSC 3100 |
| 2000-2001 | Added Web Site Development certificate and minor | Provide education in emerging web technologies in addition to the CS major. | Rapid interest and significant enrollments in the courses. Students often able to obtain employment while in school based on skills from this program. |
| 2001-2002 | Removed COSC 1710 COBOL I from core requirements. Replaced with COSC 2250 Algorithms. | Diminishing enrollment and demand for COBOL. | Replaced with Algorithms, a conceptual course that was not language dependent. Strengthened long-term value of curriculum by emphasizing the abstract over a programming language. |
| 2002-2003 | Added Mathematics Education Certificate | To facilitate preparation of students for state certification in middle-school or secondary mathematics. | Successfully implemented. |
| 2002-2004 | Added MATH 4450 Middle School Math Methods and MATH 4460 Secondary Mathematics Methods. | To meet new state requirements to prepare mathematics teachers. | Successfully implemented. |
| 2002-2003 | Added Math 3200 Statistics course. | Existing statistics course offerings are more general than appropriate for math majors. Course provides statistics taught at a level requiring Calculus I as a prerequisite. | Successfully implemented. Offered every spring. |

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| 2002-2003 | Added MATH 3030 Theory of Equations | Provide an upper-division course for majors that goes into more depth than material in college algebra. | Successfully offered periodically for math majors. |
| 2003-2004 | New program added – BA in Mathematics | To support math education students and provide a major in mathematics that integrates with the requirements and needs of education majors. | Education and science students have found the program attractive and a viable way to fit a second major in their degree programs. |
| 2003-2004 | New description for Math Education courses | Clarify the role and requirements for course work related to Math Education (K-12) | Students and advisors found the new copy helpful for planning student schedules. |
| 2003-2004 | Added COSC 3410 Computer Security | Provide another upper-division course for majors in the increasingly important topic of security. | Course regularly offered on a summer rotation with solid enrollment and important student learning outcomes. |
| 2003-2004 | Removed COSC topics courses. | Courses provided a route around degree requirements. | Increased consistency in course work across sites. Topics are still used with restricted department authorization to pilot new course content. |
| 2004-2005 | Changed course title for COSC 2250 from Algorithms to Data Structures I | Clarify initial programming sequence of four courses (Prog. 1 & 2, Data Structures 1 & 2) | More accurately represented prerequisite structure and calendar time required for students. |
| 2005-2006 | Added new Web Design certificate /minor Program | Developed an alternate course sequence for students that were not able to complete the web development program successfully. | The focus on design in web applications enable students to succeed that were not able to complete the scripting and/or programming courses. |
| 2005-2006 | Updated prerequisites and course descriptions for several math courses. | Clarify content and guide students more accurately to the correct math courses. | Advisors and students found it easier to select the correct mathematics courses. |
| 2005-2006 | Changed the title of MATH 1420 from Games, Clocks, and Magic to Modular Algebra | Students often had unrealistic expectations for the course, were not properly prepared, and withdrew from the course. | Fewer unsuccessful enrollments and withdrawals. Students are typically better prepared for the course. |
| 2005-2006 | Added two courses: CSIS 3410 Information Analysis and CSIS 3810 Management Information Systems | Courses created at the request of the Business department to support a revised BSBA program emphasis in MIS. | CSIS 3810 works well. CSIS 3410 Information Analysis however suffers from lack of student preparation and limitations of various textbooks. It is undergoing review again Spring 2007. |
| 2006-2007 | Changed course number of MATH 2510 Calculus III to MATH 3000 and Math 2600 to Math 3040. | More accurately reflect the upper-division nature of the course content with significant prerequisites (8+ hours of calculus). | In addition to more clearly identifying the depth and demands of the courses, students (particularly science students) are more able to qualify for dean's list or university-wide honors. |
| 2006-2007 | Added MATH 3210 Data Mining | After successfully piloting the courses as applied | Pilot offerings showed both the value of |

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| | Foundations and MATH 3220 Data Mining Methods | mathematics topics, added the formal listings to the catalog. | and interest in these applied mathematics subjects. |
| 2006-2007 | Updated titles to current technology for CAOP 2000, COAP 2120, COAP 2150 | To use current technology tools in the course titles. | Will more accurately reflect content of the courses. |
| 2006-2007 | Removed COSC 1710, COSC 1720 COBOL I & II COSC 2410, COSC 2420, Assembly I & II COSC 4350, COSC 4360, COSC 4710 Artificial Intelligence sequence from the catalog. | Dropped courses that were out-of-date or no longer offered due to low enrollments. | Bring catalog up-to-date and into alignment with actual offerings. |

Graduate Catalog

| Academic Year | Change | Motivation | Outcome |
|---------------|---|---|---|
| 2003-2004 | Added COSC 5150 Distributed Application Development | Added in response to difficulties observed in COSC 6000. Course designed to better prepare students for the capstone course COSC 6000. Also provides alternative for COSC 5140 Network Design and Management. | Dramatic improvements noted in COSC 6000. Students were far more able to complete the capstone project successfully. |
| 2003-2004 | Changed title and course content for COSC 5030 Prototyping to Agile Development Methods | To incorporate a broader range of software development methodologies in current practice. | Restructured course proved effective and was valued by students and employers. |
| 2003-2004 | Added new on-line certificate program in Decision Support Systems | Provide additional area of emphasis and electives for on-line MBA program as well as a specialization related to data warehousing and data mining. | Over 150 enrollments through Spring 2007 despite limited marketing support for the program. Enrollments highest in the first 2-3 courses in the sequence. May need to review and restructure certificate. |
| 2005-2006 | Added new on-line certificate program in Web Services. | Provide additional area of emphasis and electives for on-line MBA program as well as a specialization related to data warehousing and data mining web technologies. | Over 244 enrollments through Spring 2007 despite limited marketing support for the program. |