



Curriculum Proposal

Please type or select the requested information. Print completed forms, add appropriate paper attachments, and route through MSU's curricular process for recommendations and decisions.

(Check all that apply):		Proposal # 133
College: <input type="text" value="Science, Engineering and Technology"/>	<input checked="" type="checkbox"/> Undergraduate	Effective Date of Change:
Department: <input type="text" value="Computer and Information Sciences"/>	<input checked="" type="checkbox"/> Graduate	Academic Year 06-07
Program: <input type="text" value="Computer Information science"/>	CIP # <input type="text" value="11.0701 00"/>	(For Office Use Only)
Type of Change: <input type="text" value="COURSE PROPOSALS"/>		Course Designator Number of and Number Credits
Proposed: <input type="text" value="Change in Designator and Title"/>		
Title Current: <input type="text" value="Mobile Applications and Networks"/>		COMS 464 / COMS 564 4
Title Proposed: <input type="text" value="Applications of Wireless and Mobile Networks"/>		IT 464 / IT 564 4
24-Char. Abbrev: <input type="text" value="Applic Wireless Mob Net"/>		(if applicable)

Include a course or program description for the Bulletin (30-40 words maximum for courses, 100 for programs):
 Existing and emerging mobile and wireless data networks with emphasis on digital data communications. Gain an understanding of the unique considerations that must be given to network protocols for wireless and mobile communication and their applications.
 Pre: IT460
 Variable

Rationale or Justification for change:
 The CIS major is being redesigned and name changed to Information Technology (IT). The above change is proposed to be consistent with the IT major, it's designator and focus.

*****For General Education or Cultural Diversity Courses Only*****

General Education Course:	Cultural Diversity Course:								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">GE Category #</th> <th style="width: 85%;">GE Category Name (Maximum of 3 Categories)</th> </tr> <tr> <td style="text-align: center;">N/A</td> <td></td> </tr> <tr> <td style="text-align: center;">N/A</td> <td></td> </tr> <tr> <td style="text-align: center;">N/A</td> <td></td> </tr> </table>	GE Category #	GE Category Name (Maximum of 3 Categories)	N/A		N/A		N/A		<p>(Please check one.)</p> <p><input type="checkbox"/> Core (At least 75% devoted to topics of race, gender, sexual orientation, age, class, and disabilities as they occur in United States Society.)</p> <p><input type="checkbox"/> Related (At least 25% devoted to the above topics or to a global perspective on topics related to African American, Asian, Hispanic, and Native American inhabitants of the United States.)</p>
GE Category #	GE Category Name (Maximum of 3 Categories)								
N/A									
N/A									
N/A									
<p>? For Writing Intensive Courses, attach a description of the kind and quantity of writing. ? For Upper Division Courses, include a description of the respects in which it is broad and general rather than narrow and specific, and so suitable as GE.</p>									
<p>Attach paper copies of the following:</p> <ol style="list-style-type: none"> a. Syllabus or course outline. b. Course's student learning outcomes associated with each GE competency or CD designation. c. List of strategies to be used to assess students' achievement of each GE competency or CD designation. 									

*****For New Courses*****

(Check all that apply): <input type="checkbox"/> Course is an elective. <input type="checkbox"/> Course is required for program <input type="checkbox"/> Pre- or Co-requisites: <input type="checkbox"/> Other courses are being changed or eliminated. (Explain.)	Instructional Type: <input type="text" value="Lecture"/> Grading Format: <input type="checkbox"/> Grade <input type="checkbox"/> P/N Information Technology (IT) IT 460	Course will be offered: <input checked="" type="checkbox"/> Fall Semester <input checked="" type="checkbox"/> Spring Semester <input type="checkbox"/> Summer Session
<p><input type="checkbox"/> Course content or title is similar to courses in other departments. (Attach copy of letter of agreement with other program(s) contacted. Indicate the nature of the discussions and/or resolution of differences or potential conflicts.)</p> <p>Attach paper copies of the following:</p> <ol style="list-style-type: none"> a. Syllabus or course outline. b. Course's student learning outcomes. c. A list of resources required to offer and support this course. d. A description of how teaching this course will affect department staffing. e. If 400/500 level course, an explanation of added expectations of graduate students. 		



Minnesota State University, Mankato
Curriculum Proposal

Signature Page

Department

Recommended (Category/ies _____)
 Not Recommended (Category/ies _____)

David J. Angeli 10/9/06
Department Chair Date

Comments:

College Curriculum Committee

Recommended (Category/ies _____)
 Not Recommended (Category/ies _____)

Karen C. Chan 11/2/06
Committee Chair Date

Comments:

College Dean

Recommended (Category/ies _____)
 Not Recommended (Category/ies _____)

[Signature] 11/6/06
Dean Date

Comments:

General Education Subcommittee

Recommended (Category/ies _____)
 Not Recommended (Category/ies _____)

General Education Subcommittee Chair Date

Comments:

Undergraduate Curriculum and Academic Policy Committee

Recommended (Category/ies _____)
 Not Recommended (Category/ies _____)

[Signature] 1-31-07
UCAP Faculty Chair Date

Comments:

Faculty Association Graduate Committee

Recommended
 Not Recommended

Faculty Association Graduate Chair Date

Comments:

Graduate Dean

Recommended
 Not Recommended

Graduate Dean Date

Comments:

Academic Affairs Council

Recommended (Category/ies _____)
 Not Recommended (Category/ies _____)

[Signature] 2/9/07
Assistant Vice President Date

Comments:

Senior Vice President and Vice President for Academic Affairs

Approved (Category/ies _____)
 Not Approved (Category/ies _____)

[Signature] 2/13/07
Sr. Vice President / Vice Pres. Academic Affairs Date

Comments:

IT 464/ 564 (4) Applications of Wireless and Mobile Networks

a. SYLLABUS

Textbook:

Mobile Communications by Jochen Schiller, Addison-Wesely

Mobile Commerce Application Development, by Lei-da Chen and Gordon W. Skelton, Cyber Tech Publishing

Prerequisites:

IT 360

Course Objectives:

This course addresses the fundamentals of wireless networking, including architectures, protocols, and standards. It describes concepts, technology and applications of wireless networking as used in current and next-generation wireless networks. Issues such as mobility management, wireless enterprise networks, GSM, network signaling, WAP, mobile IP, and 3G systems are covered.

Catalog Description:

This course provides an understanding of existing and emerging mobile and wireless data networks, with emphasis on digital data communications. Students will gain an understanding of the unique considerations that must be given to network protocols for wireless and mobile communication as well as their applications.

b. LEARNING OUTCOMES

After completing this course, the student will be able to understand the following topics:

- Understand emerging mobile and wireless data network
- be familiar with the issues, problems, types and characteristics of Wireless Networks Applications
- explain the architecture and elements of a wireless network
- explain wireless media access protocols: Wireless LAN - TDMA, PRMA, CDMA etc.
- explain important wireless protocols: IEEE 802.11, RFID and WAP.
- understand routing in Wireless network
- understand location management
- understand transport protocols in mobile environments – I-TCP, snooping protocols
- be familiar with Wireless ATM

- capture most recent development in 3G wireless systems
- familiar with the bluetooth network types, protocol layers and applications
- describe security issues and current solutions for wireless networks and mobile systems
- explain application support in wireless networks, including the Wireless Application Protocol (WAP), iMode, and other systems to provide mobile Internet services.
- explore other technologies for development of mobile and wireless applications
- develop a wireless, mobile application using one of the technology.