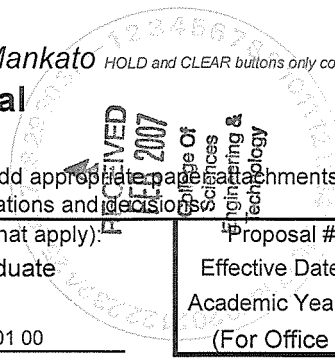


Curriculum Proposal

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



(Check all that apply):

College: Science, Engineering and Technology Undergraduate
 Department: Computer and Information Sciences Graduate
 Program: Information Technology CIP # 11.0701 00
 Proposal # 349
 Effective Date of Change:
 Academic Year 06-07
 (For Office Use Only)

Course Designator and Number	Number of Credits
IT 219	2
(if applicable)	

Type of Change: COURSE PROPOSALS
 Proposed: New Course
 Title Current:
 Title Proposed: Java for C/C++ Programmers
 24-Char. Abbrev: Java for C/C++ Progr.

Include a course or program description for the Bulletin (30-40 words maximum for courses, 100 for programs):

Designed for students who already know C++. Topics: data types, operators, functions, arrays, string operations, records, pointers, structures, classes, constructors, destructors, pointers as class members, static classes, operator functions, data type conversions, inheritance, polymorphism, and dynamic binding.
Pre: Consent Variable

Rationale or Justification for change:

The recently approved IT program has required sequence of courses in Java Programming. This course is designed and included in the IT program for transfer students who have completed C/C++ courses and need to be familiar with only the Java syntaxes with the programming background they already have.

For General Education or Cultural Diversity Courses Only

GE Category #	GE Category Name (Maximum of 3 Categories)	Cultural Diversity Course: (Please check one.)
N/A		<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.)
N/A		<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.)
N/A		

General Education Course:
 ? 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.

Attach paper copies of the following:
 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):

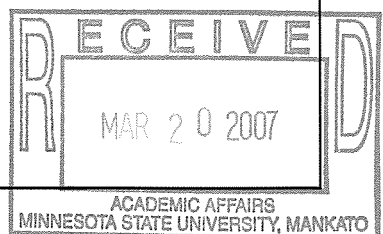
Instructional Type: Lecture
 Course is an elective.
 Course is required for program
 Pre- or Co-requisites: Consent
 Other courses are being changed or eliminated. (Explain.)

Grading Format: Grade P/N

Course will be offered:
 Fall Semester
 Spring Semester
 Summer Session

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.)

Attach paper copies of the following:
 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 _____)

Wimal Heegli 2/26/07
 Department Chair Date

Comments:

College Curriculum Committee

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

Karen C. Chon 3/13/07
 Committee Chair Date

Comments:

College Dean

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

[Signature] 3/19/07
 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] 4/18/07
 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 _____)

David Flannery 4/20/07
 Assistant Vice President Date

Comments:

Senior Vice President and Vice President for Academic Affairs

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

[Signature] 4/20/07
 Sr. Vice President / Vice Pres. Academic Affairs Date

Comments:

(This checklist is used by the Office of Academic Affairs to review all curriculum proposals)

Please check all curriculum proposals for the following, and attach checklist to proposal. If proposal is missing the following, refer to Asst. VP for Undergraduate Studies

Proposal # _____ Proposal Name _____

For New Courses:

- Syllabus or course outline (with proposed course designator/number)
- Course's student learning outcomes
- A list of resources required to offer and support this course
- A description of how teaching this course will affect department staffing
 - If 400/500 level course, an explanation of added expectations of graduate students
- Course description/bulletin copy

If GE or CD:

- Syllabus or course outline.
- Course's student learning outcomes associated with each GE competency or CD designation.
- List of strategies to be used to assess students' achievement of each GE competency or CD designation.
- 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.

For New Programs or Redesigned Programs:

- Student learning outcomes for the program.
- Minutes from department and college curriculum meetings in which action was taken on this proposal.
- Program Assessment Plan. Forms are available on the Academic Affairs Web site.
- List of program requirements for **New** programs, or a list of **Current** and **Proposed** program requirements for **Redesigned** programs.
- A list of resources required to offer and support this program.
- A description of how offering this program will affect department staffing.
- A list of additional library holdings required for this program.

For all proposals:

- Bulletin copy should not exceed 40 words for courses or 100 words for programs.
- Appropriate signatures are in place.

IT 219 (2) Java for C/C++ Programmers

a. SYLLABUS

Textbook:

Java for C/C++ programmers. Michael C. Daconta, Wiley Computer Publishing. 0-471-15324-9.

Prerequisites:

Consent

Meeting Frequency: Two one hour of lecture per week.

Course Objective:

This course is especially designed to provide an introduction to the JAVA programming language for students who already know the C++ programming language. Topics covered include an overview and review of the fundamentals of JAVA and of the implementation of object orientation in this language.

Course Contents:

Week	Topics
1	Introduction to Java – Instant Recognition, Object-Oriented Language, Java Environment.
2	Object-Oriented programming – classes, Inheritance, polymorphism, Exceptions
3	Comparing Java to ANSI C and C++
4	Comparing Java to ANSI C and C++
5	Java input and output.
6	Control structures: if, for, while, do - while, switch
7	Control structures: if, for, while, do - while, switch
8	Arrays and Strings
9	Arrays and Strings
10	Functions - Parameter passing, pointers, reference parameters
11	Functions - Parameter passing, pointers, reference parameters
12	Java Standard Library
13	Java Standard Library
14	Java language features not in C or C++ - Packages, Interfaces, Multithreading
15	Java language features not in C or C++ - Packages, Interfaces, Multithreading

Grading:

Quizzes	15%
Lab Assignments	35%
Midterm	25%
Final	25%

b. STUDENT LEARNING OUTCOMES

Students who complete this course will:

1. Understand and demonstrate programming skills in software development in Java including the implementation of common algorithms, flowcharting, and hardware-related concepts.
2. Be able to solve programming problems using Java and have knowledge of comments, data values arithmetic operations, variables and declaration statements, and integer qualifiers.
3. Be familiar with and be able to use in code the Java assignment statements, input/output functions, as well as have the handling of program errors.
4. Have acquired knowledge and demonstrate programming skills in the application of the Java control structures, including the if, the if-else, the nested if, the dangling else problem, the switch statement, as well as the use of program testing techniques.
5. Be capable of using in programs repetition constructs such as while loops, for loops, and do loops, and use these constructs in solving programming problems requiring simple and nested loops.
6. Be familiar with techniques for creating and using subprograms and demonstrate knowledge of modularity, function and parameter declaration, returning single and multiple values, and with variable storage classes. Have knowledge of recursion techniques in Java and their use in problem-solving.
7. Have gained and be able to demonstrate comprehension of arrays and array programming, including declaration, initialization, and the use in code of one-dimensional, two-dimensional arrays, and some types of multi-dimensional arrays.
8. Have gained and be able to demonstrate knowledge and programming ability regarding pointers and address references.
9. Have gained knowledge and be able to demonstrate object-oriented programming skills in Java and be capable of creating programs that use classes and objects. Know and be capable of using object-oriented programming techniques based on class inheritance and object composition constructs.

c. RESOURCES REQUIRED TO OFFER AND SUPPORT THIS COURSE

Resources currently in place within the department and the University Library will support this new course. No new resources are required.

d. IMPACT ON STAFFING IN THE DEPARTMENT

There is no impact on department staffing.

e. COURSE DESCRIPTION/BULLETIN COPY

Designed for students who already know C++. Topics: data types, operators, functions, arrays, string operations, records, pointers, structures, classes, constructors, destructors, pointers as class members, static classes, operator functions, data type conversions, inheritance, polymorphism, and dynamic binding.

Department Meeting – February 26, 2007

Members present: Haglin, Sanchez, Tietz, Slack, Syed, Kruse, Asher, Hart, Veltsos, Bates, Sallam.

Members Absent: Kelley, Wells, Quade, Schilling.

On sabbatical this term: Azarbod, Case, Cornell.

Guest: Michelle Carter, Interim Director, RASP

Call to order at 10:06

No quorum present yet. Leon gave the highlights of the minutes of the previous meeting.

David: The department split is on the agenda because the administration asked that there be a vote at the chair's meeting to approve of our department split. Approval was unanimous.

Quorum present at 10:10

Al: I move that we accept the minutes of the previous meeting.

Syed: Second.

<carries>

David: I'd like to introduce Michelle Carter to talk about RASP, the Office of Research & Sponsored Programs.

Michelle: RASP shares space in the Wigley Admin. Center with CESR, The Center for Excellence in Scholarship & Research. There is a handout (see accompanying pdf). The purpose of RASP is to give general comments rather than technical input about grant proposals.

- Faculty Research Grant proposals are due by March 19. RASP can provide feedback prior to that date.

- The deadline for Summer Research Grants is over. There were 46 submissions but not all met the guidelines because these grants are for salary, not supplies.

- The Undergraduate Research Conference will be April 23 and 24.

- The McNair grants are for students who plan to go to graduate school. They are designed for students who are low-income, first generation college and under-represented populations. Rather than attempting to determine if a student might be qualified, send interested students to Wiecking 302, the McNair Office.

- There is money available to hire undergraduates to work with faculty on research. This is new and the process is relatively informal.

- The difference between RASP and CESR is that CESR is interested in increasing quality and RASP is interested in helping to get money.

- Visit grants.gov and update your profile on cos.org.

Becky: What about when one goes to a conference primarily as an opportunity for networking?

I advise using a grant writer and using indirect cost recovery dollars.

Julio: Having the success rates (both locally and nationally) for the various grants would be useful.

David: How does one succeed in getting assessment into a grant proposal?

David: Thanks, Michelle.

David: On to the curricular proposals.

Syed: **I move that we approve the proposal for IT 219, Java for C++ Programmers.**

Gregg: Second.

<motion carries>

Al: Concerning the Cognitive Science Major, where are the components after the department split?

Becky: Mostly CS, but the ISYS HCI course will be included

Julio: What is the job market for graduates of this program?

Becky: It is strong preparation for graduate school. Many of the jobs are similar to CS jobs. Each of the four participating departments must approve it. Each of the participating colleges (three) must approve. The main contact is in the Philosophy Department.

David: What are the student number expectations?

Becky: 20-25% of the students in CS classes said they would consider the program. It is a program that appears to be especially attractive to women.

The proposal to UCAP must go from each department according to MnSCU. There are no new courses required.

Becky: **I move that we approve the Cognitive Science Major.**

Gregg: Second.

<motion carries>

David: We don't have time to discuss the Marketing Plan, but each person should look at it. (This handout is in the accompanying pdf.)

Julio: Is there a chance of CS merging with CE?

David: We have had discussions, however, now is not the time.

<Discussion of student advising day to be held March 6.>

Adjourned at 10:58

--Leon Tietz, secretary