MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH

Course Outline

Course Title:	**Computer Science II**	**Submitted By:**	**R. Booth**
Semester Course Prefix and Number:	**CSCI 2482**	**Approval Date:**	
Old Quarter Course Prefix and Number:		**Revision Date:**	**Feb. 2002**

Number of Credits:	**4**	**Number of Lecture Credits:**	**4**
Semester(s) Offered:		**Number of Lab Credits:**	
Negotiated Class Size:		**Number of Lab Hours:**	
		Number of Studio/Demonstration/Internship Credits:	

Course Purpose Code:

_____ **0 –** Developmental Courses
_____ **1 –** Non-transferable, General Education
_____ **2 –** Technical course related to career programs
_____ **3 –** College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
__X__ **4 –** Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
_____ **5 –** Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
_____ **9 –** Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
Continuation of C++, object oriented design, object oriented programming overloading, template classes, inheritance, recursion, exception handling, software reuse. A final project using the concepts that have been covered will be a course requirement.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s):	CSCI 2481, Computer Science I (formerly C++ Programming I)
Reading Prerequisite:	None
Composition Prerequisite:	None
Mathematics Prerequisite:	None

Career Programs and Transfer Majors Accessing this Course:
Computer Programming

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable: Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

0. **X** None
6. _____ The Humanities and Fine Arts

1. _____ Communications
2. _____ Critical Thinking
3. _____ Natural Sciences
4. _____ Mathematical/Logical Reasoning
5. _____ History and the Social and Behavioral Sciences
7. _____ Human Diversity
8. _____ Global Perspectives
9. _____ Ethical and Civic Responsibility
10. _____ People and the Environment

Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:
Students will learn about:
1. algorithm analysis: space and time considerations.
2. data abstraction
3. linked lists.
4. stacks and queues
5. recursion
6. binary trees
7. more powerful sorts and searches

Student assessment methods:
Lab exercises
Exam tests

Use of instructional technology (includes software, interactive video and other instructional technologies):
A computer with Microsoft C++ 6.0.

Outline of the major course content:
Software engineering principles with algorithm analysis and data abstraction
Linear data structures with linked lists, stacks, and queues
Recursive data structures and binary trees
Advanced sort and search algorithms

Additional special information (special fees, directives on hazardous materials, etc.)

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

Approvals:

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		
Meet and Confer		
Chief Academic Officer		

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