

RCTC PROGRAM PLAN

COMPUTER SCIENCE TRANSFER PATHWAY

Associate of Science

I. MINNESOTA TRANSFER CURRICULUM (MnTC)/

GENERAL EDUCATION REQUIREMENTS.....30-31 CREDITS

Complete at least 30 credits in courses from the Minnesota Transfer Curriculum (MnTC), including all courses listed. You must complete at least one course in six of the ten goal areas.

GOAL 1: WRITTEN AND ORAL COMMUNICATION11 CR

COMM 1114, Fundamentals of Public Speaking, 3 cr

ENGL 1117, Reading and Writing Critically I, 4 cr

ENGL 1118, Reading and Writing Critically II, 4 cr

GOAL 4: MATHEMATICS/LOGICAL REASONING.....5 CR

MATH 1127, Calculus I, 5 cr

MnTC ELECTIVES.....14-15 CR

Select additional MnTC credits from Goal 3, 5, 6, 7, 8, 9 or 10.

Credits need to be completed from four other goal areas. Students should choose the goal areas depending on the transfer university destination. Students should consult with their advisor before selecting courses for satisfying the goal areas.

II. PROGRAM CORE REQUIREMENTS.....16 CREDITS

COMP 2243, Programming and Problem Solving, 4 cr

COMP 2247, Algorithms and Data Structure, 4 cr

COMP 2275, Computer Architecture, 4 cr

MATH 2218, Discrete Mathematics, 4 cr

III. GENERAL ELECTIVES.....13-14 CREDITS

Select additional MnTC credits from Goal 3, 5, 6, 7, 8, 9 or 10.

Students should consult with their advisor before selecting courses. Choose courses based on the transfer university destination and track into which transfer is intended.

COMP 1140, Introduction to Database and SQL, 3 cr

COMP 1150, Computer Science Concepts, 3 cr

MATH 2350, Introduction to Mathematical Statistics, 4 cr OR

MATH 1128, Calculus II, 5 cr

COMP 1731, Programming for the Internet, 3 cr OR

COMP 1741, Java Script, 3 cr OR

COMP 1751, Mobile Application Development, 3 cr

TOTAL60 CREDITS

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PROGRAM OUTCOMES:

Upon completion of the Computer Science Transfer Pathway program at RCTC, students will achieve the following outcomes:

- Apply mathematical foundations, algorithmic principles, and computer science concepts to analyze and design software solutions.
- Design, implement and validate software using Java in conjunction with graphical user interface.
- Apply current design techniques including the effective application of data structures, recursion, and object-oriented technologies for software solutions.
- Evaluate the efficiency of software algorithm using Big O notation.
- Develop logical reasoning and problem-solving skills.
- Work as part of a team to analyze, design and implement software solutions.

Revised: 02/09/2021

Implementation: Fall 2021