

# RCTC PROGRAM PLAN

## SCIENCE FOUNDATIONS

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

#### **GENERAL EDUCATION REQUIREMENTS.....35 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. Consult with an advisor to see which MATH and elective courses are required by your transfer institution.*

#### **GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

ENGL 1117, Reading and Writing Critically I, 4 cr

#### **GOAL 3: NATURAL SCIENCES .....8 CR**

BIOL 1230, General Biology II, 4 cr

CHEM 1127, Chemical Principles I, 4 cr

#### **GOAL 4: MATHEMATICS/LOGICAL REASONING.....4 CR**

Select one from the list below.

MATH 1090, Statway Statistics II, 4 cr

MATH 1117, Precalculus, 4 cr

MATH 1127, Calculus I, 5 cr

MATH 1128, Calculus II, 5 cr

MATH 2208, Fundamentals of Statistics, 4 cr

#### **GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES .....6 CR**

Credits from MNTC Goal 5 – 2 areas

Suggested Courses:

PSYC 2618, General Psychology, 4 cr

PSYC 2626, Human Growth & Development, 3 cr

SOC 1614, Introduction to Sociology, 3 cr

#### **GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY.....6 CR**

Credits from MNTC Goal 6 – 2 areas

Suggested Courses:

Foreign language of your choice, 4 cr

HUM 1131, Introduction to the Humanities, 3 cr

PHIL 1125, Ethics, 3 cr

PHIL 1135, Bioethics, 3 cr

#### **GOAL 10: PEOPLE AND THE ENVIRONMENT .....4 CR**

BIOL 1220, General Biology I, 4 cr (also meets Goal 3)

### II. PROGRAM CORE REQUIREMENTS.....4 CREDITS

CHEM 1128, Chemical Principles II, 4 cr

# RCTC PROGRAM PLAN

## III. Electives.....21 CREDITS

BIOL 1211, Principles of Nutrition, 3 cr  
 BIOL 1217, Anatomy & Physiology I, 4 cr  
 BIOL 1218, Anatomy & Physiology II, 4 cr  
 BIOL 2000, Ecology, 4 cr  
 BIOL 2021, General Microbiology, 4 cr  
 BIOL 2200, General Zoology, 4 cr  
 BIOL 2300, Genetics, 4 cr  
 CHEM 2127, Organic Chemistry I, 4 cr  
 CHEM 2128, Organic Chemistry II, 4 cr  
 CHEM 2297, Chemistry Research, 1 cr  
 CHEM 2800, Biochemistry, 3 cr  
 ENGL 11118, Reading/Writing Critically II, 4 cr  
 ESCI 1114, Minnesota Rocks and Waters with Lab, 4 cr  
 HCOP 1610, Medical Terminology: Body Systems, 2 cr  
 MATH 1115, College Algebra, 3 cr  
 MATH 1117, Pre-Calculus, 4 cr  
 NA 1500, Nursing Assistant Theory and Clinical, 4 cr  
 PHYS 1103, Principles of Physics, 3 cr  
 PHYS 1117, Introductory Physics I, 4 cr OR  
 PHYS 1127, Classical Physics I, 5 cr  
 PHYS 1118, Introductory Physics II, 4 cr OR  
 PHYS 1128, Classical Physics II, 5 cr

Additional options may be more appropriate for the desired transfer program.

## TOTAL .....60 CREDITS

### PROGRAM OUTCOMES:

Upon completion of the Science Foundations program at RCTC, students will achieve the following outcomes:

- Demonstrate basic knowledge and understanding of fundamental scientific principles.
- Apply skills in analytical thinking and problem-solving to experimental and theoretical data.
- Demonstrate skills in laboratory operations including making measurements, preparing solutions, using a microscope, operating instrumentation, designing experiments, preparing samples for various analyses.
- Provide clear and compelling data and analysis in oral and written communications including papers, posters, or presentations.
- Work both independently and collaboratively in the classroom and in the laboratory.
- Exhibit growth in academic performance and personal and professional responsibility.

### ADDITIONAL NOTES:

This two-year degree includes basic science curriculum required for admission by various health science professional schools, or science transfer programs. Check with the school(s) of your choice to ensure that their specific requirements are fulfilled.

Revised: 11/12/2024

Implementation: Fall 2025