

# RCTC PROGRAM PLAN

## SCIENCE FOUNDATIONS A

Certificate

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)

**GENERAL EDUCATION REQUIREMENTS.....16 CREDITS**

#### GOAL 3: NATURAL SCIENCE

BIOL 1220, General Biology I, 4 cr

BIOL 1230, General Biology II, 4 cr

CHEM 1127, Chemical Principles I, 4 cr

CHEM 1128, Chemical Principles II, 4 cr

### II. ELECTIVES.....Minimum of 3 Credits

**(See your counselor for additional options)**

BIOL 1217, Principles of Anatomy & Physiology I, 4 cr

BIOL 1218, Principles of Anatomy & Physiology II, 4 cr

BIOL 2021, General Microbiology, 4 cr

BIOL 2300, Genetics, 4 cr

MATH 1127, Calculus I, 5 cr

MATH 1128, Calculus II, 5 cr

MATH 2208, Fundamentals of Statistics, 4 cr

PHIL 1125, Ethics, 3 cr

**TOTAL.....19 CREDITS**

### **PROGRAM OUTCOMES:**

Upon completion of their academic path in Science Foundations A 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:**

**PURPOSE:** The Science Foundations Certificates A and B provide students currently holding a baccalaureate degree the opportunity to complete science and Liberal Arts coursework (if required) to apply to a variety of professional programs. These include medical, physical therapy, veterinary medicine, physician assistant, occupational therapy, pharmacy, dentistry, chiropractic, osteopathic medicine, as well as other professional benefit from this program. Course prerequisites must have been taken in the past five years, or instructor permission granted to enter classes.

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Recent changes to professional program entrance exams may require students to gain or update courses in the humanities. Psychology or sociology courses are available to provide this preparation.

Classes chosen for this certificate prepare students to begin work towards the Science Foundations B Certificate. There is flexibility in the courses and sequencing which allows for adaption to match student needs based on their field of study and transfer coursework. Students must check with their desired professional programs and institutions to ensure this coursework fulfills their prerequisites. Additional coursework may be required for some programs.

An additional application is required for entrance into this program to ensure previous completion of a Bachelor's degree.

Revised: 02/13/2018

Implementation: Spring 2018