

# RCTC PROGRAM PLAN

## LABORATORY SCIENCE

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)

#### GENERAL EDUCATION REQUIREMENTS.....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 COMMUNICATION .....10 CR

COMM 1114, Fundamentals of Public Speaking, 3 cr

ENGL 1109, Introduction to Professional and Technical Communication, 3 cr

ENGL 1117, Reading and Writing Critically I, 4 cr

(ENGL 1118, Reading and Writing Critically II, 4 cr may be substituted for ENGL 1109)

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

BIOL 1220, General Biology I, 4 cr

CHEM 1127, Chemical Principles I, 4 cr

#### GOAL 4: MATHEMATICS/LOGICAL REASONING.....3 CR

MATH 1115, College Algebra, 3 cr

#### GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....7 CR

PSYC 2618, General Psychology, 4 cr

SOC 1614, Introduction to Sociology, 3 cr

#### GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR

PHIL 1135, Bioethics, 3 cr

### II. PROGRAM CORE REQUIREMENTS.....29 CREDITS

BIOL 1217, Anatomy and Physiology I, 4 cr

BIOL 1218, Anatomy and Physiology II, 4 cr

BIOL 1230, General Biology II, 4 cr **OR**

BIOL 2020, Introduction to Molecular Biology Methods, 4 cr

BIOL 2021, Microbiology, 4 cr

CHEM 1118, General, Organic and Biological Chemistry II, 4 cr **OR**

CHEM 2800, Biochemistry, 3 cr

CHEM 1128, Chemical Principles, 4 cr

CHEM 2100, Survey of Organic Chemistry, 4 cr

BIOL 1200, Introduction to the Clinical/Research Laboratory, 2 cr

#### TOTAL .....60 CREDITS

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## **PROGRAM OUTCOMES:**

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

- Explain and properly apply the scientific method by developing valid hypotheses, designing experiments, gathering relevant data using current technology, and interpreting quantitative and qualitative data.
- Prepare written and oral scientific communications that use tables and graphs to report results, that describe detailed experimental procedures, and that clearly explain conclusions.
- Critically evaluate contributions to science reported in all forms of media; and be able to identify valid approaches to scientific problem solving and reporting.
- Exhibit growth in academic performance and personal and professional responsibility.
- Demonstrate basic laboratory skills, such as making accurate and precise measurements, using a microscope, preparing solutions, operating current instrumentation, and preparing samples for various analyses.
- Exhibit an ability to work independently and collaboratively.

## **ADDITIONAL NOTES:**

**PROGRAM ARTICULATION:** This program is articulated with the Bachelor of Science degree in Medical Laboratory Science offered by the University of North Dakota. Students who complete this program can continue next two years of study at UND and receive a Bachelor of Science degree in MLS.

Revised: 11/12/2020

Implementation: Fall 2020