

La Roche University
MATHEMATICS PROGRAM GUIDE

DEGREE: Bachelor of Science Department: Mathematics

Student Name _____
 I.D. Number _____

___ First Year Student
 ___ Change of Major

___ Transfer
 ___ Readmit

Unofficial Eval Completed by/date: _____

This is the **unofficial evaluation** of your credits to date including transfer credits (if applicable) in your chosen major. **This evaluation is official when all official transcripts for all previous university work are received; and reviewed and approved for transferability by the Registrar's Office.** Beginning with your first semester of enrollment, your Degree Audit Report in My.LaRoche will automatically track your progress toward your degree, and guide you in planning future class schedules. Review your updated Degree Audit Report with your advisor prior to registering each semester.

PURPOSE: The major in Mathematics introduces students to a field whose origins date from the dawn of history and whose ever-increasing pervasiveness and importance in science, engineering, business and finance renders it a veritable master-key in understanding the world about us. The degree in mathematics opens many doors to students upon graduation, to a job in business, industry or government, to certification as a teacher, to graduate study in mathematics, statistics and computer science, among many other fields, or to a professional school such as in business or law. Moreover, the major in mathematics serves as a gateway not only to a job and career, but also to a world where logic and imagination combine to create timeless beauty and truth.

REQUIREMENTS: To successfully complete the Mathematics major, the following coursework is required:

- 49 credits as listed under "Major Component/Requirements" (34 in Mathematics, 7 in Computer Science and 8 in Physics)
- 37 CORE credits
- 34 General Elective Credits
- A minimum number of 120 credits are required for degree, the last 30 of which, and 50% of the major must be earned at La Roche University. (Developmental course work does not count toward the minimum number of required credits for graduation.)

Credits Transfer Course #/Comments

MAJOR COMPONENT/REQUIREMENTS: 49 CREDITS

Mathematics Component

_____ MATH1032	Analytic Geometry & Calculus I	4	Prerequisites: MATH1010 or equivalent, MATH1023 _____
_____ MATH1033	Analytic Geometry & Calculus II	4	Prerequisite: MATH1032 _____
_____ MATH2030	Analytic Geometry & Calculus III	4	Prerequisite: MATH1033 _____
_____ MATH2031	Ordinary Differential Equations	3	Prerequisite: MATH2030 _____
_____ MATH2050	Discrete Mathematics I	3	Prerequisite: MATH1033 _____
_____ MATH3015	Linear Algebra	3	Prerequisite: MATH2030 _____
_____ MATH3040	Probability & Statistics I	3	Pre- or Co- requisite: MATH2030 _____
_____ MATH4015	Modern Abstract Algebra	3	Prerequisite: MATH2031; Co-requisite: MATH3015 _____
_____ MATH4035	Real Analysis	3	Prerequisite: MATH2031 _____
_____ MATH4090	Junior-Senior Seminar	1	Prerequisite: Junior/Senior Status _____
_____ MATH4055	Capstone Project	3	Prerequisite: Senior Status _____

Computer-Science Component

_____ CSCI1002	Introduction to Computer Science	3	
_____ CSCI1010	Programming I	3	Prerequisite: CSCI1002 _____
_____ CSCI1010L	Programming I Lab	1	The lab component of CSCI1010 _____

Physics Component

_____ PHYS1032 General Physics I	3	<u>Recommended prerequisite: MATH1033</u>
_____ PHYS1032L General Physics I Lab	1	<u>The lab component of PHYS1032</u>
_____ PHYS1033 General Physics II	3	<u>Prereq: PHYS1032; recommended prereq: MATH2030</u>
_____ PHYS1033L General Physics II Lab	1	<u>The lab component of PHYS1033</u>

ACADEMIC CORE CURRICULUM – 37 Credits

	<u>Credits</u>	<u>Transfer Course # / Comments</u>
<u>Foundations of Knowledge: 15 credits</u>		
_____ ENGL1011 Academic Reading and Writing	3	_____
_____ ENGL1012 Academic Writing and Research	3	_____
_____ ISTC1010 Digital Literacy	3	_____
_____ MATH1010 College Algebra	3	_____
_____ SPCH1010 Oral Communication	3	_____

<u>La Roche Experience: 4 credits</u>		
_____ LRUX1001 LRX Foundations	1	_____
_____ LRUX2500 Investigating Social Problems	3	_____

Breadth of Knowledge: 12 credits

Courses in a variety of disciplines can fulfill these requirements. Students should use the course search in the My.LaRoche schedule of classes to find courses that fulfill each area. Students must complete **PLEASE NOTE: Students are exempt from one area, based on their major.**

_____ Natural and Physical World		<u>Fulfilled in Major</u>
_____ Human Expression	3	_____
_____ Values and Ethics	3	_____
_____ Social Sciences	3	_____
_____ Global Perspectives	3	_____

Depth of Knowledge: 3 credits

_____ INQU Interdisciplinary Inquiry	3	_____
--------------------------------------	---	-------

Core Electives: 3 credits

_____ Any Breath of Knowledge Area Course –OR– One additional Interdisciplinary Inquiry	3	_____
--	---	-------

GENERAL ELECTIVES: 34 credits

General electives may be applied to the requirements of a second major, or a minor, or a certificate program or to do an internship (MATH4051 for 1-6 credits). In the past, students have often combined a major in mathematics and a minor in either computer science or finance.

Transfer Course # Credits

_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

<i>FOR REGISTRAR USE ONLY:</i>	<u>TOTAL</u>	<u>Completed</u>	<u>Need</u>	<u>COMMENTS:</u>
Major Component	49	_____	_____	_____
CORE	37	_____	_____	_____
General Electives	34	_____	_____	_____
Accepted in Transfer	_____	_____	_____	_____
La Roche University Credit	_____	_____	_____	_____
Total	120	_____	_____	_____

Registrar Signature _____ **Date** _____