

La Roche College
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 college 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.

What distinguishes the BS from the BA in Mathematics is the requirement of 7 credits in Computer Science and that of 4 additional credits in Physics. Although the number of general elective credits is thereby reduced by 11, the remaining 21 credits could still allow for a minor in many fields.

- REQUIREMENTS:** To successfully complete the Mathematics major, the following coursework is required:
- 65 credits as listed under "Major Component/Requirements" (46 in Mathematics, 7 in Computer Science and 12 in Physics)
 - 37 CORE credits
 - 18 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 College. (Developmental course work does not count toward the minimum number of required credits for graduation.)

Credits Transfer Course #/Comments

MAJOR COMPONENT/REQUIREMENTS: 65 CREDITS

Mathematics Component

_____ MATH1032	Analytic Geometry & Calculus I	4	<u>Prerequisites: MATH1010 or equivalent, MATH1023</u>
_____ MATH1033	Analytic Geometry & Calculus II	4	<u>Prerequisite: MATH1032</u>
_____ MATH2030	Analytic Geometry & Calculus III	4	<u>Prerequisite: MATH1033</u>
_____ MATH2031	Ordinary Differential Equations	3	<u>Prerequisite: MATH2030</u>
_____ MATH2050	Discrete Mathematics I	3	<u>Prerequisite: MATH1033</u>
_____ MATH2051	Discrete Mathematics II	3	<u>Prerequisite: MATH2050</u>
_____ MATH3015	Linear Algebra	3	<u>Prerequisite: MATH2030</u>
_____ MATH3035	Complex Variables	3	<u>Prerequisite: MATH2031</u>
_____ MATH3040	Probability & Statistics I	3	<u>Pre- or Co- requisite: MATH2030</u>
_____ MATH3045	Probability & Statistics II	3	<u>Prerequisite: MATH3040</u>
_____ MATH4003	History of Mathematics	3	<u>Prerequisite: MATH2031</u>
_____ MATH4015	Modern Abstract Algebra	3	<u>Prerequisite: MATH2031; Co-requisite: MATH3015</u>
_____ MATH4020	Geometry	3	<u>Prerequisite: MATH2031</u>
_____ MATH4035	Real Analysis	3	<u>Prerequisite: MATH2031</u>
_____ MATH4090	Junior-Senior Seminar	1	<u>Prerequisite: Junior/Senior Status</u>

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	Recommended prerequisite: MATH1033
_____ PHYS1032L	General Physics I Lab	1	The lab component of PHYS1032
_____ PHYS1033	General Physics II	3	Prereq: PHYS1032; recommended prereq: MATH2030
_____ PHYS1033L	General Physics II Lab	1	The lab component of PHYS1033
_____ PHYS2030	General Physics III	3	Prerequisite: PHYS1033
_____ PHYS2030L	General Physics II Lab	1	The lab component of PHYS2030

ACADEMIC CORE CURRICULUM: 37 CREDITS

Fundamentals: 12 Credits

		<u>Credits</u>	<u>Transfer Course #/Comments</u>
_____ ENGL1011	College Writing I	3	_____
_____ ENGL1012	College Writing II	3	Prerequisite ENGL1011
_____ ISTC1005	Practical Computer Applications	3	_____
_____ MATH1010	College Algebra	3	_____

La Roche Experience: 4 Credits

_____ LRCX1001	Introduction & History	1	_____
_____ LRCX1002	Diversity/Discrimination	1	_____
_____ LRCX2001	Regions of Conflict	1	_____
_____ LRCX2002	Economic Justice	1	_____

Community/Global: 6 credits (or 6 credits in same Foreign Language for majors that do not require a language)

_____ COMM	Community	3	_____
_____ GLBL	Global	3	_____

Select Courses: 15 credits

18 credits are required with study within each of the following domains. Students can fulfill six domains with four courses (earning a total of 12 credits) by completing "dual-domain" SELECT courses SLDD. Student earns 3 credits only for each dual-domain course. The "lost" 3-6 credits can be fulfilled through a major or general elective. **PLEASE NOTE: Some "Select Courses" may be filled by meeting Major Requirements and if so, will be annotated as such.**

_____ SELECT Aesthetics (SLAE)		3	_____
_____ SELECT History (SLHS)		3	_____
_____ SELECT Literature (SLLT)		3	_____
_____ SELECT Religion/Philosophy (SLRS)		3	_____
_____ SELECT Science (SLSC)		0	Fulfilled in major
_____ SELECT Social and Cultural Systems (SLSO)		3	_____

GENERAL ELECTIVES: 18 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

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

FOR REGISTRAR USE ONLY:	<u>TOTAL</u>	<u>Completed</u>	<u>Need</u>	<u>COMMENTS:</u>
Major Component	65	_____	_____	_____
CORE	37	_____	_____	_____
General Electives	18	_____	_____	_____
Accepted in Transfer	_____	_____	_____	_____
La Roche College Credit	_____	_____	_____	_____
Total	120	_____	_____	_____

Registrar Signature _____

Date _____

Advisor Signature _____

Date _____

(When signed by Advisor, all required coursework/credits have been completed for graduation.)