MATHEMATICS, BA/MS COMPUTER SCIENCE ACCELERATED PROGRAM

Mathematics majors can participate in this accelerated program leading to a BA in Mathematics and a Masters degree in Computer Science. The program allows students to take three graduate-level computer science courses as part of their undergraduate degrees. Once students are admitted to the MS in Computer Science, the courses will apply toward completion of the MS degree.

A student in the BS in Mathematics program needs to apply for the accelerated program by the end of the semester prior to the senior year. The admission standard to the Accelerated Program should be consistent with the MS in Computer Science program. Students in the accelerated program should meet the program requirements of both BS in Mathematics and MS in Computer Science programs.

Requirements

- Major in Mathematics (http://catalog.roosevelt.edu/undergraduate/ health-science/mathematics-ba/)
- Completion of 60 credit hours of undergraduate course work
- Have and maintain a minimum grade point average of 3.0
- All courses presented for the undergraduate major must be completed with C- or higher grades; a maximum of two grades of C- may be presented for the undergraduate major.
- The BA degree with an accelerated MS requires additional courses in computer science. In order to have the appropriate background in computer science, students should take CST 250 COMPUTER SCIENCE II, CST 280 INTRODUCTION TO ALGORITHMS, and CST 317 OPERATING SYSTEMS
- Obtain permission from the MS in Computer Science director to take the required MS in Computer Science courses as an undergraduate.
- Upon completion of the BA in Mathematics (http:// catalog.roosevelt.edu/undergraduate/health-science/ mathematics-ba/) apply to the MS in Computer Science (http:// catalog.roosevelt.edu/graduate/health-science/computer-science- ms/) program under the normal admission process. (http:// catalog.roosevelt.edu/graduate/admission/)

The student will take the following three MS graduate courses as part of the Mathematics BA. All of the courses will receive credit toward the Master's in Computer Science degree once the student is admitted to the MS program.

Required Courses

Code	Title	Credit Hours
CST 421	DATA MINING	3
CST 423	COOPERATION AND COMPETITON -- GAME THEORY AND APPLICATIONS	3
CST 457	SYSTEMS PROGRAMMING	3

Your degree map is a general guide suggesting courses to complete each term on the academic pathway to your degree. It is based on the most current scheduling information from your academic program. Your program's degree map is reviewed annually and updated as schedules change (although you retain the same course requirements as long as you are continuously enrolled in your degree program).

Always work closely with your academic advisor to understand curriculum requirements and scheduling, as each student's academic plan can look slightly different.

Year 1

Fall	Credit Hours	Spring	Credit Hours
FYS 101	1	ENG 102	3
ENG 101	3	Ideas of Social Justice	3
MATH 121[4]	3	MATH 122	3
BIOL 111 or 112[3]	4	Social Science #1[5]	3
Humanities #1	3	Physical Science[3]	3
	14		**15**

Year 2

Fall	Credit Hours	Spring	Credit Hours
MATH 231	5	MATH 232	5
COMM 101	3	MATH 246	3
Humanities #2	3	Social Science #2	3
CST 150	4	CST 250	4
	15		**15**

Year 3

Fall	Credit Hours	Spring	Credit Hours
MATH 233	3	Experiential Learning #1[1]	3
MATH 245	3	MATH 352	3
MATH 290	1	MATH 2XX or 3XX[2]	3
CST 280	3	General Elective	3
CST 317	3	Humanities #3	3
Social Science #3	3		
	16		**15**

Year 4

Fall	Credit Hours	Spring	Credit Hours
MATH 3XX	3	General Elective	3
CST 421	3	General Elective	3
CST 423	3	Experiential Learning #2	3
General Elective	3	CST 457	3
General Elective	3	General Elective	3
	15		**15**

Year 5

Fall	Credit Hours	Spring	Credit Hours
CST 408	3	CST 449	3
CST 411	3	CST 499	3
CST 485	3	CST 4XX	3
CST 4XX	3		
	12		**9**

Total Credit Hours 141

[1]   MATH 390 INDUSTRIAL RESEARCH PROBLEMS recommended.

[2] Or a general elective if the EXL course was MATH 390

[3] One Natural Science course must be a lab course.

[4] Students should begin taking the calculus sequence in order based on their placement. Students who place into MATH 122 TRIGONOMETRY AND PRECALCULUS, MATH 231 CALCULUS I, MATH 232 CALCULUS II, or MATH 233 CALCULUS III should begin in that course in their first semester, taking subsequent courses each following semester until this sequence is complete. Students who need additional assistance in MATH 121 COLLEGE ALGEBRA may register for the corequisite MATH 021 ALGEBRAIC FOUNDATIONS course.

[5] ECON 234 ELEMENTARY STATISTICS suggested