

# MATHEMATICS, BS

Students considering the Mathematics major should consult an advisor during their first or second semester to plan the proper course sequence and continue to consult the Chairperson of the Mathematics department at least once each semester. Students entering the major should have demonstrated knowledge of MAT-1107 Algebra and Trigonometry for Science Majors and MAT-2202 Calculus I.

## Requirements

Code	Title	Hours
<b>General Education Program</b>		
	Understanding College FS)	1
	Writing and Presentation (WR11 & OC1)	6
	Mathematics (QR1)	3-4
	Information Literacy, Media, and Research (ITML)	3
	Creative Voices Across Cultures (HCE)	6
	Science at Work (NPW)	6-10
	Ethics, Reality and Logic (PEM)	6
	Individuals and Societies (SEH)	6
	Our World, Past and Present (WHG)	6
	Personal Wellness (FH)	2-3
	Religion and Culture (RS)	3
<b>Mathematics Major</b>		
	Select either Group A or Group B <sup>1</sup>	6
	Group A - Select two foreign language courses in sequence	
	Group B - Select two IT courses in sequence	
MAT-2202	Calculus I	4
MAT-2203	Calculus II	4
MAT-3304	Calculus III	4
MAT-3312	Linear Algebra	4
MAT-3401	Differential Equations I	3
MAT-4403	Advanced Calculus I	4
MAT-4404	Advanced Calculus II	4
MAT-4409	Modern Algebra	3
MAT-4415	Probability Theory	3
	Select two MAT 2000-4000 level MAT courses	6
MAT-4418	Senior Seminar <sup>2</sup>	3
PHY-2001	General Physics I	3
PHY-2001L	General Physics I Laboratory	1
	General electives	24
<b>Total Hours</b>		<b>124-130</b>

<sup>1</sup> Two courses in the same foreign language or two courses in Information Technology, at least one of which is a high-level computer language.

<sup>2</sup> The successful presentation and completion of a set of comprehensive problems during the senior mathematics seminar (MAT-4418 Senior Seminar) to be administered in the senior year is a graduation requirement for a baccalaureate degree in Mathematics. This seminar and examination satisfies the College's Comprehensive Examination.

In keeping with our mission at St. Francis College, the courses you take across the liberal arts ensure that you are well-rounded, able

to engage in meaningful thought and conversation both within and outside of your area of expertise, and building a foundation for future success by deepening and broadening your knowledge. Building on First Year Foundations and augmenting your major field of study, the combination of courses in the Bodies of Knowledge prepares you to meet the challenges the world presents to you with intelligence, clarity, and empathy. They will equip you to solve complex problems, contribute to your community, and improve the world you inhabit.

## Institutional Learning Outcomes:

1. Demonstrate sensitivity to creative expression
2. Communicate ideas and information through written, oral, visual and digital media
3. Employ critical and analytical skills
4. Value diverse perspectives of the human experience
5. Implement information, technology and media literacy
6. Demonstrate quantitative literacy

## Foundation Courses- First Year College (13-14 credits)

St. Francis College's mission, emphasizing Franciscan education, highlights access and opportunities for all students. In your first year at SFC, you will combine key skill development with courses in the liberal arts and in your areas of interest. Each of these courses and categories is essential to your success in college and beyond. Our First Year Foundations program ensures that all students will be equitably prepared to excel and achieve their goals.

## Bodies of Knowledge (35 credits)

At St. Francis College, our Franciscan mission states that we "educate the whole person for a full, relational life." This means that we strive, by making certain you take courses across the liberal arts, to ensure that you are well-rounded, able to engage in meaningful thought and conversation both within and outside of your area of expertise, and create success by deepening and broadening your knowledge. Building on First Year Foundations and augmenting your major field of study, the combination of courses in the Bodies of Knowledge prepare you to meet the challenges the world presents to you with intelligence, clarity, and empathy. They will equip you to solve complex problems, contribute to your community, and improve the world you inhabit.