

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
General Education Program		
Writing (WR)		3
Quantitative Literacy (QR)		3-4
Oral Communications (OC)		3
Fitness/Health (FH)		2-3
Information, Technology & Media Literacy (ITML)		3
Religious Studies (RS)		3
Freshman Seminar (FS)		1
Humanistic & Creative Expression (HCE)		6
Natural & Physical World (NPW)		6-10
Philosophical, Ethical & Moral Dimensions (PEM)		6
Environment & Human Experience (SEH)		6
World Heritage & Global Perspectives (WHG)		6
Mathematics Major		
Select either Group A or Group B ¹		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 ²	3
PHY-2001	General Physics I	4
General electives		24
Total Hours		124-130

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

² 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.

The General Education Program is the academic cornerstone of St. Francis College and affirms its mission to graduate educated, well-

rounded students to enter and participate in a changing and culturally diverse world.

As an integrated program of studies, it focuses on developing the skills expected of a liberally educated person. It provides students with a broadly-based foundation outside their areas of specialization, an understanding of how various disciplines intersect and differ, and assists in cultivating a disposition for lifelong learning.

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 (18 credits)

To ensure refinement of basic reasoning and cognitive skills needed for successful completion of any college degree program, the general education program requires 18 credits in foundational courses targeting student learning outcomes (SLOs) in writing; quantitative reasoning; oral communications; information, technology, and media literacy; fitness or health; religious studies; and the Freshman Seminar. Each student is required to successfully complete one course in each of the areas of the First Year College.

Bodies of Knowledge (30 credits)

A selection of 30 credits in broad areas of inquiry, designated as Bodies of Knowledge, allow students the flexibility to gain breadth and depth in a field outside of a major. Each student is required to successfully complete two different courses in each of the five Bodies of Knowledge.