

# Academic Fact Sheet

Wayne State  
College

## MAJOR OF MATHEMATICS (50 Hours) APPLIED MATHEMATICS CONCENTRATION

The Mathematics major is administered by the Physical Sciences and Math Department.

### Facts about the Program

#### *Degrees Offered:*

B.S.  
B.A.

#### *Faculty:*

Jeffrey Bauer, Ed.D.  
Tim Hardy, Ph.D.  
Jennifer Langdon, Ph.D.  
Tami Worner, Ph.D.

### Program Description

Applied mathematics is an interdisciplinary subject, covering a wide range of scientific activities. It is math dealing with problems arising in the physical, life, and social sciences as well as in engineering and provides a broad background in both quantitative and qualitative knowledge for use in these fields. Mathematical modeling and analysis unify ideas and provides a richer deeper understanding of the field to which they apply.

Applied mathematics appeal to people of varying interests: some seek to obtain a sound math background for use in a future career, others wish to learn mathematics and techniques of a specific field and still others are just interested in applied math itself.

Applied math students have a choice of emphasizing in Mathematics, Biology, Computer Science, Economics or Physics. In addition to an emphasis, Applied Math majors are encouraged to earn a second major or minor in one of the sciences (Biology, Chemistry, Computer Science, Economics, Social Science or Physics).

In addition to the courses listed on the back of this sheet, the student must meet all other requirements for graduation.

### Career Opportunities

Government labs  
Federally funded contractors  
Engineering research organizations  
Computer services  
Software firms  
Energy firms  
Electronic and computer manufacturers  
Communications services  
Chemical or pharmaceutical manufacturers  
Insurance companies  
Local, state and federal government  
Graduate school in actuarial science, general engineering or mathematics

### Scholarships and Financial Aid

Wayne State College is committed to providing a quality, affordable education for its students. There are several types of financial assistance available for Wayne State students, including grants, loans, work-study and scholarships. The aid packages are composed of money from Pell grants, SEOG grants, SSIG grants, Perkins loans, Stafford student loans, PLUS loans and a variety of scholarships. Contact the Financial Aid Office at 402-375-7230 for further information.

Scholarships for returning students in the department include:

Frank Prather Scholarship  
A.V. Teed Scholarships  
Webber Scholarship  
Bobier Scholarship

### For more information contact:

Physical Sciences and Math Department  
Wayne State College  
Wayne, NE 68787  
(402) 375-7329 or 1-800-228-9972  
www.wsc.edu

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## MAJOR OF MATHEMATICS (52 Hours) APPLIED MATHEMATICS CONCENTRATION

Fall		Spring	
MAT 140 Calculus	5	MAT 240 Calculus II	5
		MAT 270 Foundations of Math	3
		MAT 281 Assessment I	0
		MAT 282 Assessment II	0
Fall		Spring	
MAT 340 Calculus III	5	MAT 250 Differential Equations	3
		MAT 335 Math Modeling	3
Fall		Spring	
MAT 305 Discrete Math	3	MAT 350 Linear Algebra	3
MAT 400 Real Analysis	4	MAT 410 Probability and Statistics	4
MAT 405 Applied Math	3		
Fall		Spring	
MAT 440 Numerical Analysis	3		
MAT 470 Connections	2		
MAT 481 Assessment III	0		

This is a sample schedule illustrating completion of the program. Students' actual schedules will vary based upon their readiness for Calculus and when they begin the program.

In addition to the above, students will have to complete the general education curriculum and courses from one of the following concentrations: Math, Biology, Chemistry, Computer Science, Economics, Physics.