MATHEMATICS MAJOR - B.A.

Primary Faculty, Rockland: Dr. In Hak Moon

Mission
The goal of the Mathematics Department is to show God's love through the study of mathematics as the student learns to address and solve problems that deepen our appreciation for the ordered universe of God's creation.

Student Learning Goals
Academically Excellent: Upon successfully completing the mathematics degree, the student will have increased their understanding of mathematics at the college level and will renew and sharpen their analytics skills.

Relevant Socially: The study of mathematical concepts is vital to evaluating and comprehending our world, on both the personal and business level. Students will learn how to describe many relationships in our world and universe through the tools of mathematics.

Program Assessment
The following assessments are used to assess program effectiveness.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Context</th>
<th>Location in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics Test</td>
<td>Comprehensive Final Exam</td>
<td></td>
</tr>
<tr>
<td>Mathematics Integration Papers</td>
<td>Paper</td>
<td></td>
</tr>
<tr>
<td>Exit Interview</td>
<td>Exit Interview</td>
<td></td>
</tr>
<tr>
<td>Survey of Alumni</td>
<td>Survey</td>
<td></td>
</tr>
<tr>
<td>Seminar Presentation</td>
<td>Oral Presentation</td>
<td></td>
</tr>
<tr>
<td>Exam Files for Core Courses</td>
<td>Tests</td>
<td></td>
</tr>
</tbody>
</table>

No prior year assessments. Assessments will be instituted Fall 2009.

The Mathematics major at Nyack College is designed for those interested in learning how to describe many relationships in our world and universe through the tools of mathematics. Besides deepening students' understanding of mathematical concepts, this pursuit will sharpen organizational and analytical skills and improve students' abilities in applying mathematics in a variety of areas. This major will prepare students for careers in business, government, and industry, and mathematics education. The program also will prepare students wishing to study at the graduate level in mathematics and other related areas. Students are encouraged to blend computer science studies into their major to equip themselves further for the needs of society.
126 credit hours, distributed as follows, are required for the Bachelor of Arts degree:

**Liberal Arts and Science Core Component** ............................................................... 37

**Foreign Language Component** ............................................................................... 12
- 2 years (4 semesters) of the same language

**Bible and Ministry Minor Curriculum** .................................................................... 15

**Major Field Component (36 credits)**
- MAT 236 - Calculus I .................................................................................................. 3
- MAT 237 - Calculus II ................................................................................................ 3
- MAT 238 - Calculus III .............................................................................................. 3
- MAT 310 - Linear Algebra ......................................................................................... 3
- MAT 330 - Probability and Statistics ......................................................................... 3
- MAT 345 - Discrete Mathematics ............................................................................. 3
- MAT 401 - Differential Equations ............................................................................. 3
- MAT 470 - Math Seminar .......................................................................................... 3
- MAT-Electives ........................................................................................................... 9
- Worldview elective ................................................................................................... 3

**Miscellaneous Elective Component (26 credits)**
- Miscellaneous electives ........................................................................................ 26

**Total credits required** ............................................................................................ 126
## Mathematics Major Suggested Program Plan

### FIRST YEAR: Fall
- PMN 101-Intro to Spiritual Form. ..2
- INT 112-Found. for Excellence .....2
- ENG 101-College Writing I ............3
- HIS 113-Hist. of World Civ. I........3
- MAT-Elective..................................3
- Elective ............................................3
- INT 101-Info Literacy .............1

### SECOND YEAR: Fall
- BIB 201-New Testament Lit ...........3
- ENG 201 or 202-Global Lit. I or II.3
- Foreign Language ......................3
- MAT 237-Calculus II ......................3
- Elective3 ..........................................3

### THIRD YEAR: Fall
- BIB 303 Christian Thought ..........3
- Foreign Language ......................3
- 310-Linear Algebra ......................3
- MAT345-Discrete Math .................3
- SOC 347-Multicultural America ....3

### FOURTH YEAR: Fall
- BIB 401-Christian Worldview ........3
- MAT 401-Differential Equations ..3
- MAT-Elective .................................3
- Electives ...........................................7

### FIRST YEAR: Spring
- BIB 102-Old Testament Lit ........3
- ENG 102-College Writing II..........3
- Fine Arts requirement...............3
- HIS 114-Hist. of World Civ. II .....3
- MAT 236-Calculus I ......................3
- PMN 201-Nyack Heritage ..............1

### SECOND YEAR: Spring
- Foreign Language ......................3
- PHI 101-Intro. to Philosophy ....3
- Laboratory Science ..................4
- Social Science Elective .............3
- Elective ...........................................3

### THIRD YEAR: Spring
- BIB-Elective ................................7
- Foreign Language ......................3
- MAT 238-Calculus III .................3
- MAT 330-Statistics .....................3
- Electives ...........................................4

### FOURTH YEAR: Spring
- MAT 470-Seminar ..........................3
- MAT-Electives .................................6
- Electives ...........................................6