### B.A. Mathematics

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**WESTERN CONNECTICUT STATE UNIVERSITY**

**I. General Education Requirements (40 S.H. plus HPX)**

**Communication Skills (3 S.H.)**

- COM 160, 161, 162 or 163 3
- Has completed one Writing Intensive Course Yes No

**Humanities (15 S.H. minimum, including 3 of 6 fields):**

- Fine and Applied Arts - only 1 studio course accepted toward minimum - Foreign Language, Humanistic Studies, Literature, Philosophy, Western History 3

**Social & Behavioral Sciences (12 S.H. minimum including 2 of 3 fields: Non-Western Culture, Psychology, Social Sciences)**

- 3

**Natural Sciences & Mathematics (10 S.H. minimum)**

- ♦ MAT 181 Calculus I (or MAT 171***) 4
- Lab. Science 2, 3, or 4
- CS 140 Intro to Programming (or CS 143) 3, or 4

**Health Promotion and Exercise Sciences (2 S.H.)**

- HPX 177 Fitness for Life 2

**II. Major Requirements (45 S.H.)**

- Required Courses, including MAT 181: (39 S.H.)
  - MAT 150-151 Mathematics Seminar I & II 1.0
  - MAT 141 Foundational Discrete Mathematics 3
  - ♦ MAT 182 Calculus II 4
  - ♦ MAT 185 Intro to Symbolic Computations 3
  - ♦ MAT 207 Proofs 3
  - MAT 222 Introductory Statistics 3
  - ♦ MAT 272 Introduction to Linear Algebra 3
  - ♦ MAT 281 Calculus III 4
  - MAT 282 Differential Equations 3
  - MAT 332 Intro to Applied Mathematics 3
  - ♦ MAT 375 Algebraic Structures 3
  - MAT 383 Intro to Mathematical analysis 3
  - MAT 450/451 Senior Seminar 3

**One Course which completes a sequence in Analysis, Algebra, or Applied Math:**

- 3

- One elective from the Department’s Approved List 3

- A year sequence from one of the following (may also be used to satisfy general education requirements) BIO 103-104 or CHE 110-111 or ECO 100-101 or PHY 110-111 (6-8 S.H.) 3-4

**III. Free Electives**

- 6

**Foreign Language Requirement Completed:** Yes No

**Minimum of 122 S.H. including HPX 177 for B.A. Degree**

- **MAT 171 assumes student also took MAT 170**
- Minimum grade of C is required
- ♦ Minimum grade of B is required

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<th>Previous School(s)</th>
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**Office Admissions Evaluation of Transfer Credit**

- Entering Date day/eve/full/part-time
- Number Title Credits

- Foreign Language Requirement Met Through
- High School Exemption: Yes No

**Total Transfer Credits** 5/06, 6/09, 6/26/09, 5/12

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* General education requirements at Western total 42 semester hours. In some instances, work toward a major program partially fulfills general education requirements. The remaining general education requirements for this program are shown above.
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Approved List of Electives

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>MAT 250</td>
<td>Mathematical Modeling</td>
<td>3 S.H.</td>
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<tr>
<td>MAT 251</td>
<td>Posing and Solving Problems in Mathematics</td>
<td>3 S.H.</td>
</tr>
<tr>
<td>MAT 363</td>
<td>History of Mathematics</td>
<td>3 S.H.</td>
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<tr>
<td>*MAT 298</td>
<td>Faculty Developed Study</td>
<td>1-4 S.H.</td>
</tr>
<tr>
<td>*MAT 299</td>
<td>Student Developed Study</td>
<td>1-6 S.H.</td>
</tr>
<tr>
<td>MAT 342</td>
<td>Topics in Geometry</td>
<td>3 S.H.</td>
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<tr>
<td>*MAT 351</td>
<td>Independent Study</td>
<td>3 S.H.</td>
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<tr>
<td>MAT 359</td>
<td>Introduction to Theory of Computation</td>
<td>3 S.H.</td>
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*The credits from this course may be applied to the major only if the department has approved it for major credit.

5/06, 6/09, 6/26/09, 5/12