**Course Outline**

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>Calculus II</th>
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<tbody>
<tr>
<td>Semester Course Prefix and Number:</td>
<td>MATH 1572</td>
</tr>
<tr>
<td>Old Quarter Course Prefix and Number:</td>
<td></td>
</tr>
<tr>
<td>Number of Credits:</td>
<td>4</td>
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<tr>
<td>Number of Lecture Credits:</td>
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<tr>
<td>Number of Lab Credits:</td>
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<tr>
<td>Number of Lab Hours:</td>
<td></td>
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<tr>
<td>Number of Studio/Demonstration/Internship Credits:</td>
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<tr>
<td>Semester(s) Offered:</td>
<td>F/S</td>
</tr>
<tr>
<td>Class Size:</td>
<td>35</td>
</tr>
<tr>
<td>Negotiated by AASC on:</td>
<td>(date)</td>
</tr>
<tr>
<td>Submitted By:</td>
<td>Math Dept</td>
</tr>
<tr>
<td>Approval Date:</td>
<td></td>
</tr>
<tr>
<td>Revision Date:</td>
<td>12/19/18</td>
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**Course Purpose Code:**
- 0 – Developmental Courses
- 1 – Non-transferable
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of MNTC (e.g. computer science, health, physical education)
- **X** 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements or intended for transfer.
- 6 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course is a continuation of the study of Calculus, including differentiation and integration of the Transcendental functions: logarithmic, exponential, inverse trigonometric, hyperbolic, and inverse hyperbolic. This course covers techniques of integration, infinite series, conic sections, parameterized curves and polar coordinates.

**Prerequisites and/or recommended entry skills/knowledge:**
- Course Prerequisite(s): Calculus I (MATH 1561)
- Reading Prerequisite: |
- Composition Prerequisite: |
- Mathematics Prerequisite: Calculus I (MATH 1561)

**Career Programs and Transfer Majors Accessing this Course:**

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:**
(Notes: No more than two goals may be met by any one course. AASC review and the Chief Academic Officer’s approval are required.)

- 0. None
- 1. Communications
- 2. Critical Thinking
- 3. Natural Sciences
- **X** 4. Mathematical/Logical Reasoning
- 5. History and the Social and Behavioral Sciences
- 6. The Humanities and Fine Arts
- 7. Human Diversity
- 8. Global Perspectives
- 9. Ethical and Civic Responsibility
- 10. People and the Environment
Learning Outcomes: (including any relevant competencies listed in the Minnesota Transfer Curriculum)

Upon completion of this course, the student will be able to:

- Differentiate transcendental functions
- Integrate transcendental functions
- Integrate using the method of Partial Fractions
- Graph and analyze conic sections in Cartesian, Polar, and Parametric form

Student Assessment Methods: May Include:
Graded exams and homework

Use of Instructional Technology: (includes software, interactive video and other instructional technologies):

May include use of the TI-89 or Voyage 200

Additional Special Information: (special fees, directives on hazardous materials, etc.)

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

Affiliated Mesabi Range College Courses and Programs:
IRE (Itasca Community College)

Approvals:

<table>
<thead>
<tr>
<th>Body</th>
<th>Representative Signatures</th>
<th>Date</th>
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<tbody>
<tr>
<td>Faculty Association</td>
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<tr>
<td>Academic Affairs Standards Committee</td>
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<tr>
<td>Chief Academic Officer</td>
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Distribution: Original – Instructional Services
Copies: Transfer Specialist, Originating Faculty Member, Records
Revised: December 2012