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|----------------------------------------|------------------------------------------------|------------------------------|----------------------------------|
| 1. <input type="checkbox"/>            | Communications                                 | 7. <input type="checkbox"/>  | Human Diversity                  |
| 2. <input type="checkbox"/>            | Critical Thinking                              | 8. <input type="checkbox"/>  | Global Perspectives              |
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>  | Ethical and Civic Responsibility |
| 4. <input checked="" type="checkbox"/> | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/> | People and the Environment       |
| 5. <input type="checkbox"/>            | History and the Social and Behavioral Sciences |                              |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

The student will:

- Solve systems of equations using several techniques
- Apply the appropriate method to an equation involving derivatives to find the general solution or specific solution with initial conditions
- Apply the techniques to situational problems.

**Student assessment methods:**

- Four or five one-hour exams
- Graded daily assignments
- A two-hour final exam

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

The students will be instructed and encouraged to use graphing calculators and required to use computer software “Derive”, “Maple”, or “Mathematica”

**Outline of the major course content:**

- I. First-Order Differential Equations
- II. Second-Order Linear Differential Equations
- III. Matrices and Systems of Linear Algebraic Equations
- IV. Determinants
- V. Vector Spaces
- VI. Linear Transformations and the Eigenvalue/Eigenvector Problem
- VII. Systems of Differential Equations
- VIII. The Laplace Transform
- IX. Infinite Series Solutions to Differential Equations

**Additional special information** (special fees, directives on hazardous materials, etc.)

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

I have had this course accepted at every college we have sent students to except West Point and they don't accept credits from any school.

**Approvals:**

<b>Body</b>	<b>Representative Signatures</b>	<b>Date</b>
Curriculum Committee	Kim Giermann	1-08-02
Faculty Association	Dr. L. Hazareesingh	1-08-02
Meet and Confer	Dr. Jill Peterson	1-09-02
Chief Academic Officer	Dr. Jill Peterson	1-09-02

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