1. **Catalog Description of the Course.** [Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]

**MATH 494. INDEPENDENT RESEARCH (1-3)**
Prerequisites: Senior standing and Program approval of written proposal. Supervised project involving theoretical research in the field of mathematics or its applications. All students are required to present their projects at the Senior Colloquium.

2. **Mode of Instruction.**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Units</th>
<th>Hours per Unit</th>
<th>Benchmark Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>_____</td>
<td>_____</td>
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<tr>
<td>Seminar</td>
<td>_____</td>
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<td>______</td>
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<tr>
<td>Laboratory</td>
<td>_____</td>
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<tr>
<td>Activity</td>
<td>_____</td>
<td>1 3</td>
<td>______</td>
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</tbody>
</table>

3. **Justification and Learning Objectives for the Course.** (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) [Use as much space as necessary]

The course is an elective for Mathematics majors.

Through this course, students will be able to

- Do research in Mathematics or its applications
- Present their research in oral form

This course is not designed to satisfy the University Writing or Language requirements.

4. **Is this a General Education Course**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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</table>

If Yes, indicate GE category:

- A (English Language, Communication, Critical Thinking)
- B (Mathematics & Sciences)
- C (Fine Arts, Literature, Languages & Cultures)
- D (Social Perspectives)
- E (Human Psychological and Physiological Perspectives)
5. Course Content in Outline Form. [Be as brief as possible, but use as much space as necessary]

Supervised project involving theoretical research in the field of mathematics or its applications. Presentation at the Senior Colloquium.

6. References. [Provide 3 - 5 references on which this course is based and/or support it.]

None

7. List Faculty Qualified to Teach This Course.

All Mathematics Faculty

8. Frequency.
   a. Projected semesters to be offered: Fall ___X__ Spring ___X___ Summer _____

9. New Resources Required.
   a. Computer (data processing), audio visual, broadcasting needs, other equipment
      Existing resources.
   b. Library needs
      Standard University library facilities.
   c. Facility/space needs
      Overhead projector, Power Point and standard classroom equipment

10. Consultation.
    Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

___________________________________________________
Proposer of Course    Date