



**9a. Grading Option:** Standard Grade

**9b. Catalog Description:**

Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog.

**Course Outline Information**

**10. Student Performance Objectives:** (Performance objectives for all credit courses must indicate that students will learn critical thinking and will be able to apply concepts at college level. Performance objectives must be related to items listed in Section 11.)

1. Develop an independent study project with written goals and objectives which include critical thinking;
2. complete the proposed project independently;
3. demonstrate through the submission of research projects, increased knowledge and skills related to the subject area; and
4. evaluate project success with the instructor.

**11. Course Content Outline:** (Provides a comprehensive, sequential outline of the course content, including all major subject matter and the specific body of knowledge covered.)

- I. Description of proposed project
  - A. Goals and objectives
  - B. Methods and format
  - C. Evaluation methods
  - D. Establishment of contact hours with instructor of record
  - E. Development of time-line for execution
  - F. Project approval
- II. Execution of project
  - A. Gather research and resources as needed
  - B. Development of project
  - C. Completion of project
- III. Evaluation of project
  - A. Submission of project to instructor
  - B. Student evaluation of project
  - C. Faculty evaluation of project

**12. Typical Out-of-Class Assignments:** (Credit courses **require** two hours of independent work outside of class for each lecture hour, less lab/activity classes. List type of assignments including library assignments.)

**a. Reading Assignments:** (Submit at least 2 examples.)

1. Create a reading list of articles and/or books related to the project topic.
2. Summarize and critique articles from list.

**b. Writing, Problem Solving or Performance:** (Submit at least 2 examples)

1. Write an outline of the proposed project including methods of completing the project.
2. Summarize the activities of the project in journal format.

**c. Other** (Term projects, research papers, portfolios, etc.)

1. Submit project report at end of semester.

**13. Required Materials:****a. All textbooks, resources and other materials used in this course are college level?**

- Yes  
 No

**b. Representative college-level textbooks (for degree applicable courses) or other print materials:****Book 1:****Author:****Title:****Publisher:****Date of Publication:****Edition:****c. Other materials and/or supplies required of students:**

Determined on basis of individual project. Instructor will evaluate educational materials at time of submission of initial project proposal.

**14. Check all instructional methods used to present course content:**

- |                                                        |                                                                          |
|--------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> Lecture                       | <input checked="" type="checkbox"/> Activity                             |
| <input checked="" type="checkbox"/> Discussion Seminar | <input type="checkbox"/> Distance Education (requires supplemental form) |
| <input checked="" type="checkbox"/> Lab                | <input type="checkbox"/> Work Experience                                 |
| <input checked="" type="checkbox"/> Directed Study     | <input type="checkbox"/> Tutoring                                        |

Other:

Give detailed examples of teaching methodology that relate to the course performance objectives:

The independent study project is purposely geared to require elements of reading (e.g., research and ideas related to the project), writing (e.g., the final project report), and critical thinking (e.g., acquired data must be put in the context of a model).

**15. Methods of Assessing Student Learning****15a. Methods of Evaluation:**

- |                                                    |                                                          |
|----------------------------------------------------|----------------------------------------------------------|
| <input checked="" type="checkbox"/> Essay Exam     | <input checked="" type="checkbox"/> Reports              |
| <input checked="" type="checkbox"/> Objective Exam | <input checked="" type="checkbox"/> Problem Solving Exam |
| <input checked="" type="checkbox"/> Projects       | <input checked="" type="checkbox"/> Skill Demonstration  |
| <input type="checkbox"/> Class Discussion          | <input type="checkbox"/> Other                           |

**15b. (All courses must provide for measurement of student performance in terms of stated student performance objectives, Area 10, and culminate in a formal recorded grade based on uniform standards. Submit at least 2 examples.)**

Specific measurements for student performance will be established by the instructor at the beginning of the independent study project.

**SECTION C****1. Program Information:**

- In an approved program
- Part of a new program
- Not part of an approved program

**2. TOP Code Information**

Program Title: Mathematics, General 170100

**3. Course SAM Code:**

- A - Apprenticeship Course
- B - Advanced Occupational
- C - Clearly Occupational
- D - Possibly Occupational
- E - Non-Occupational

**4. Faculty Minimum Qualifications/Degrees:**

Mathematics

**Comments:**

**SECTION D****General Education Information:**

1. College Associate Degree GE Applicability:

2. CSU GE Applicability:

3. IGETC Applicability:

4. CAN :

5. LDTP:

**SECTION E**

1. **Articulation Information:** (Required for Transferable Courses Only)

- CSU Transferable
- UC Transferable
- CSU/UC Major Requirement.

If CSU/UC major requirement, list campus and major. (Note: Must be lower division)

2. **List at least one community college and its comparable course.** If requesting CSU and/or UC transferability also list a CSU/UC campus and comparable lower division course

**SECTION F**

**Planning and Resources:** Please address the areas below:

**1. Evidence of Need or Potential:** recommendations of advisory committee, connection to existing or planned degrees/certificates, or regional/national developments, transfer university requirements.

This course creates the opportunity for individual self-directed study that is beyond or in addition to regular curricula.

**2. Appropriateness to Mission:** connection to basic skills, transfer, career technical education, or lifelong learning; relationship

Continued work in area of interest enhances student skills through more complex projects and critical thinking.

**3. Place in Program/Department:** relationship to student learning outcomes identified by program, connection to general education, or articulation with other institutions.

Allows student to demonstrate critical thinking and problem solving skills, building on knowledge required in subject area classes.

**4. Availability of Faculty and Facilities:** minimum qualifications to teach course, special training for instructors, or long-term physical impact of course.

Student works with full time faculty who meet min quals for the program.

**5. Potential Impact on Resources:** impact on library, computer support, transportation, equipment, or other needs

Use of college internet and library for research.

**SECTION G**

**1. Maximum Class Size (recommended):**

**2. If recommended class size is not standard, then provide rationale:**