

Last Revised and Approved: 04/29/2013

### **MATH 0028 - INDEPENDENT STUDY**

SECTION A		
1. Division:	Sciences & Mathematics	
2. Subject Code:	MATH	

4. Course Title: INDEPENDENT STUDY

5. Semester of First Offering: FALL 2013

## SECTION B General Course Information

1.Units:N/AVariable Units:1-32.This Course is:Degree-Applicable Credit - Transferable3A. Cross-List:3B. Formerly:

#### **Course Format and Duration**

3. Course Number:

4. Standard Term Hours per Week 5. Standard Term Total Semester Hours

Lecture/Discussion: Lecture/Discussion:

0028

Lab: Lab: Activity: Activity:

 By Arrangement:
 3 - 9
 By Arrangement:
 54 - 162

 Total Hours per Week:
 3 - 9
 Total Hours:
 54 - 162

6. Minimum hours per week of independent work done outside the class:

Course Preparation - (Supplemental form B required)

7a. Prerequisite(s): (Course and/or other preparation/experience that is <u>REQUIRED</u> to be completed previous to enrollment in this course.)

- 7b. Co-requisite(s): (Courses and/or other preparation that is REQUIRED to be taken concurrently with this course.)
- 7c. Advisory: (MINIMUM preparation RECOMMENDED in order to be succesful in this course. Also known as "Course Advisory".)

**Catalog Description And Other Catalog Information:** 

8. Repeatability: Not Repeatable

Please note: Repeatability does <u>not</u> refer to repeating courses because of substandard grades or a lapse of time since the student took the course. A course may be repeated <u>only</u> if the course content differs each time it is offered and the student who repeats it is gaining an expanded educational experience as stipulated in Title V.

<ul> <li>Skills or proficiencies are enhanced</li> </ul>	d by supervised repe	tition and practice	e within class per	riods.
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- ☐ Active participatory experience in individual study or group assignments is the basic means by which learning objectives are attained.
- ☐ Course content differs each time it is offered.

Explanation for above repeatability selection:



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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.



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b. Writing, Problem Solving of Performance. (Submit at least 2 examples)
1. Write an outline of the proposed project including methods of completing
2. Summarize the activities of the project in journal format.

c. Other	(Term projects, research papers, porfolio	s, etc.)	
1. Subm	it project report at end of semester.		
13 Regu	uired Materials:		
•	งเบอง เพลเอาเลเร. งเบองหร, resources and other materials เ	ised in t	his course are college level?
u. ∧ıı to,	Yes		ino course are conege lever.
	No		
b. Repre	esentative college-level textbooks (for de	egree ap	plicable courses) or other print materials:
-	•	J	,,
Book	<u>c1:</u> thor:		
Titl			
	e. olisher:		
	e of Publication:		
	tion:		
	er materials and/or supplies required of		
	termined on basis of individual project. Ins		
	lluate educational materials at time of sub		
	ck all Instructional methods used to pre		
	Lecture		Activity
☑	Discussion Semminar		Distance Education (requires supplemental form)
$\checkmark$	Lab		Work Experience

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

 $\overline{\checkmark}$ 

Other:

Directed Study

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).

Tutoring

SIERRA COLLEGE

the project.



15. Methods of Assessing Student Learning

**CREDIT COURSE OUTLINE: MATH 0028** 

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15a. M	ethods of Evaluation:			
	☑ Essay Exam	$\overline{\mathbf{Q}}$	Reports	
	☑ Objective Exam	<b>√</b>	Problem Solving Exam	
	☑ Projects	$\overline{\mathbf{Q}}$	Skill Demonstration	
	☐ Class Discussion		Other	
			udent performance in terms of stated student performance objectives, Area n uniform standards. Submit at least 2 examples.)	
iu, and	cummate in a formal recorded grade base	au Oi	il ulliforni standards. Subiliit at least 2 examples.)	
Specific	c measurements for student performance wil	l be	established by the instructor at the beginning of the independent study project.	
SECTI				
_	ram Information:			
	In an approved program			
	Part of a new program			
	Not part of an approved program			
2. TOP	Code Information			
Pro	gram Title: Mathematics, General 1701	00		
3. Cou	se SAM Code:			
	A - Apprenticeship Course			
	B - Advanced Occupational			
	C - Clearly Occupational			
	D - Possibly Occupational			
	E - Non-Occupational			
4. Facu	Ity Minimum Qualifications/Degrees:			
Mat	hematics			
Com	Comments:			



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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



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## 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: