

## ESM 499 RESEARCH IN MATERIALS SCIENCE (ELECTIVE)

**Credit: 0-4**

### Course Catalog description:

An independent research project with faculty supervision. Permission to register requires a B average in all engineering courses and the agreement of a faculty member to supervise the research. May be repeated, but only three credits of research electives (AMS 487, CSE 487, ESE 499, ESM 499, ESC 499, EST 499, ISE 487) may be counted toward technical elective requirements.

**PRE- OR COREQUISITE(S):** B average in all engineering courses and the agreement of a faculty member to supervise the research.

**TEXT(S) OR OTHER REQUIRED MATERIAL:** None

COURSE LEARNING OUTCOMES	SOS	ASSESSMENT TOOLS
Application of high level research skills (data collection and analysis)	a b	Final report; observation; publications
Experimental design	b c	Final report
Use of engineering research tools and techniques	k	Final report
Communication skills relevant to research	g	Final report; observation; publications
Effective multi-level research team participation	d	Final report; observation

### COURSE TOPICS

Independent Research

### CLASS/ LABORATORY SCHEDULE:

Varies

### CURRICULUM

This course contributes 0-4 credit hours toward meeting the required 48 hours of engineering topics.

### STUDENT OUTCOMES (SCALE 1-3):

A	B	C	D	E	F	G	H	I	J	K
2	3	2	3			3				3

**3 – Strongly supported**

**2 – Supported**

**1- Minimally supported**

### LEAD COORDINATOR(S) WHO PREPARED THIS DESCRIPTION AND DATE OF PREPARATION:

Gary Halada, 7/13/2010