



**SOUTH DAKOTA BOARD OF REGENTS  
ACADEMIC AFFAIRS FORMS**

**New Course Request**

<b>SDSU</b>	<b>Jerome J Lohr College of Engineering / Mechanical Engineering</b>
<b>Institution</b>	<b>Division/Department</b>
Dennis D. Hedge	4/24/2024
<b>Institutional Approval Signature</b>	<b>Date</b>

**Section 1. Course Title and Description**

Prefix & No.	Course Title	Credits
ME 301	Engineering Ethics and Economics	1

**Course Description**

This course covers engineering economics and ethics, making sound financial decisions for engineering projects, and the implications of those decisions. Emphasis will be on ethical decision making in the engineering design process.

**Pre-requisites or Co-requisites**

Prefix & No.	Course Title	Pre-Req/Co-Req?
None		

**Registration Restrictions**

Junior Standing

**Section 2. Review of Course**

**2.1. Will this be a unique or common course?**

**Unique Course**

Prefix & No.	Course Title	Credits
EE 422	Engineering Economics and Management	2
GE 231	Technology, Society, and Ethics	3
MNET 460	Engineering Economic Analysis	3

Provide explanation of differences between proposed course and existing system catalog courses below:

The proposed course would provide an introduction to engineering economics as well as ethics. EE 422 and MNET 460 cover engineering economics and cost analysis for electrical projects and industries respectively. Ethics is not a focus of EE 422 or MNET 460. At present, ethics is covered in a non-departmental course GE 231 Technology, Society, and Ethics. That course is not focused on making ethical engineering decisions but on how technology has changed from past to present, the impact society has on and is influenced by the change and the creation and utilization of tools. Ethics is not covered in a sufficient manner such that the mechanical engineering students taking the course score well on the Fundamentals of Engineering exam which is the standardized exam testing engineering knowledge.

**Section 3. Other Course Information**

**3.1. Are there instructional staffing impacts?**

No. Schedule Management, explain below: This course will replace ME 490 in the Mechanical Engineering curriculum. ME 301 will be offered in the fall and spring.

**3.2. Existing program(s) in which course will be offered: Mechanical Engineering (B.S.)**

3.3. Proposed instructional method by university (as defined by AAC Guideline 5.4): R - Lecture

3.4. Proposed delivery method by university (as defined by AAC Guideline 5.5): 001 - Face to Face

3.5. Term change will be effective: fall 2024

3.6. Can students repeat the course for additional credit?  Yes, total credit limit:  No

3.7. Will grade for this course be limited to S/U (pass/fail)?  Yes  No

3.8. Will section enrollment be capped?  Yes, max per section:  No

3.9. Will this course equate (i.e., be considered the same course for degree completion) with any other unique or common courses in the common course system database in Colleague and the Course Inventory Report?  Yes  No

3.10. Is this prefix approved for your university?  Yes  No

**Section 4. Department and Course Codes (Completed by University Academic Affairs)**

4.1. University Department: Mechanical Engineering

4.2. Banner Department Code: SMEC

4.3. Proposed CIP Code: 14.1901

Is this a new CIP code for the university?  Yes  No

**NEW COURSE REQUEST  
Supporting Justification for On-Campus Review**

Yucheng Liu	Yucheng Liu	4/3/2024
<b>Request Originator</b>	<b>Signature</b>	<b>Date</b>
Yucheng Liu	Yucheng Liu	4/3/2024
<b>Department Chair</b>	<b>Signature</b>	<b>Date</b>
Suzette Burckhard	Suzette Burckhard	4/10/2024
<b>School/College Dean</b>	<b>Signature</b>	<b>Date</b>

1. Provide specific reasons for the proposal of this course and explain how the changes enhance the curriculum.

Accreditation of engineering programs requires evidence of providing instruction on ethics. At present, ethics is covered in a non-departmental course GE 231 Technology, Society, and Ethics. That course is not focused on making ethical engineering decisions but on how technology has changed from past to present, the impact society has on and is influenced by the change and the creation and utilization of tools. Ethics is not covered in a sufficient manner such that the mechanical engineering students taking the course score well on the Fundamentals of Engineering exam which is the standardized exam testing engineering knowledge.

2. Note whether this course is:  Required  Elective

3. In addition to the major/program in which this course is offered, what other majors/programs will be affected by this course?

None.

4. If this will be a dual listed course, indicate how the distinction between the two levels will be made.

N/A

5. Desired section size: 32

6. Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).

Todd Letcher, Associate Professor, Ph.D.

7. Note whether adequate facilities are available and list any special equipment needed for the course.

Adequate facilities are available.

8. Note whether adequate library and media support are available for the course.

Library resources are available for this course.

9. Will the new course duplicate courses currently being offered on this campus?  Yes  No

10. If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined.

N/A