

# Cover Sheet: Request 12041

## EIN 4354 Engineering Economy

### Info

Process	Course Modify Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Serdar Kirli kirli@ise.ufl.edu
Created	11/8/2017 4:17:21 PM
Updated	10/2/2018 10:18:38 AM
Description of request	This request is only about changing the first digit of the course number from 4 to 3, making this a 3000-level course. Everything else (content, contact hours, pre-requisites) will remain unchanged.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	ENG - Industrial and Systems Engineering 011906000	Ageliki Elefteriadou		12/7/2017
No document changes					
College	Recycled	ENG - College of Engineering	Heidi Dublin	Description request should describe the change requested. Please include syllabus. Since this is a service course, please consult with other majors that may be affected.	1/8/2018
No document changes					
Department	Approved	ENG - Industrial and Systems Engineering 011906000	Ageliki Elefteriadou		5/3/2018
EIN4354_EngineingEconomy.pdf					
College	Recycled	ENG - College of Engineering	Heidi Dublin	Please ensure consult was done.	8/30/2018
No document changes					
Department	Approved	ENG - Industrial and Systems Engineering 011906000	Serdar Kirli	e-mail exchange for the consultation with MSE uploaded	9/27/2018
Course Number change for EIN4354.txt					
College	Approved	ENG - College of Engineering	Heidi Dublin	Approved by HWCOE Curriculum Committee	10/2/2018
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			10/2/2018
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					

Step	Status	Group	User	Comment	Updated
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

# Course|Modify for request 12041

## Info

**Request:** EIN 4354 Engineering Economy

**Description of request:** This request is only about changing the first digit of the course number from 4 to 3, making this a 3000-level course. Everything else (content, contact hours, pre-requisites) will remain unchanged.

**Submitter:** Serdar Kirli kirli@ise.ufl.edu

**Created:** 11/8/2017 4:12:22 PM

**Form version:** 1

## Responses

### Current Prefix

*Enter the current three letter code (e.g., POS, ATR, ENC).*

Response:

EIN

### Course Level

*Select the current one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).*

Response:

4

### Number

*Enter the current three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles.*

Response:

354

### Lab Code

*Enter the current lab code. This code indicates whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).*

Response:

None

### Course Title

*Enter the current title of the course as it appears in the Academic Catalog.*

Response:

Engineering Economy

### Effective Term

*Select the requested term that the course change(s) will first be implemented. Selecting "Earliest" will allow the change to be effective in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's expectations. Courses cannot be changed retroactively, and therefore the actual*

*effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires at least 6 weeks after approval of the course change at UF.*

Response:  
Earliest Available

**Effective Year**

*Select the requested year that the course change will first be implemented. See preceding item for further information.*

Response:  
2018

**Requested Action**

*Indicate whether the change is for termination of the course or any other change. If the latter is selected, all of the following items must be completed for any requested change.*

Response:  
Other (selecting this option opens additional form fields below)

**Change Course Prefix?**

Response:  
No

**Change Course Level?**

*Note that a change in course level requires submission of a course syllabus.*

Response:  
Yes

**Current Level**

Response:  
4

**Proposed Level**

Response:  
3

**Change Course Number?**

Response:  
No

**Change Lab Code?**

*Note that a change in lab code requires submission of a course syllabus.*

Response:  
No

**Change Course Title?**

Response:  
No

**Change Transcript Title?**

Response:  
No

**Change Credit Hours?**

*Note that a change in credit hours requires submission of a course syllabus.*

Response:  
No

**Change Variable Credit?**

*Note that a change in variable credit status requires submission of a course syllabus.*

Response:  
No

**Change S/U Only?**

Response:  
No

**Change Contact Type?**

Response:  
No

**Change Rotating Topic Designation?**

Response:  
No

**Change Repeatable Credit?**

*Note that a change in repeatable credit status requires submission of a course syllabus.*

Response:  
No

**Maximum Repeatable Credits**

*Enter the maximum credits a student may accrue by repeating this course.*

Response:  
3

**Change Course Description?**

*Note that a change in course description requires submission of a course syllabus.*

Response:  
No

**Change Prerequisites?**

Response:  
No

**Change Co-requisites?**

Response:  
No

## **Rationale**

Response:

This is one of the earliest courses in the ISE curriculum and is typically taken in the 4th or 5th semester though it can theoretically be taken as early as the 3rd semester, since its only prerequisite is MAC2312 (Calculus 2).

Therefore, it is more appropriate to designate it as a 3000-level course

From: Hennig, Richard  
Sent: Thursday, September 27, 2018 2:58 PM  
To: Kirli,Serdar  
Cc: Manuel, Michele; Schubring, DuWayne; MECHOLSKY,JOHN JOSEPH,JR  
Subject:Fwd: RE: Re: Course Number change for EIN4354

Dear Serdar,

I checked with our academic advisor, Courtney Grasley, and EIN 4354 is not a pre- or co-requisite of any of our MSE courses (see also Courtney's message below).

Please let me know if there is anything else that is needed for this course number change from us.

Best wishes,

Richard

—

Richard G. Hennig

Professor, Materials Science and Engineering, University of Florida

Associate Director, Quantum Theory Project, University of Florida

Adjunct Professor, Materials Science and Engineering, Cornell University

Email: rhennig@ufl.edu

Web: <http://hennig.mse.ufl.edu>

On September 6, 2018 at 11:11:06 AM, Grasley,Courtney L (cgrasley@mse.ufl.edu) wrote:

Good Morning Dr. Hennig,

EIN4354 is not listed as a pre- or co-requisit for any of our MSE undergraduate courses.

EIN4354 falls under the "Engineering Core Courses" section of the degree audit and can



be substituted with MAN3025 and MAR3023 (both of these courses have pre-reqs of other economics and marketing courses.) Please let me know if you have any other questions!

Best Regards,

Courtney

Courtney Grasley, MSM

Academic Advisor II

Academic Services

Materials Science and Engineering | Nuclear Engineering PO Box 116400 | 108 Rhines Hall

From: Hennig, Richard

Sent: Thursday, September 06, 2018 11:01 AM

To: . MSE Advising <advising@mse.ufl.edu>

Subject: Fwd: Re: Course Number change for EIN4354

Dear Courtney,

Are you aware of any of our courses listing EIN4354 as a pre- or co-requisite? The course number for this class is about to change from 4354 to 3354 and we should identify if we need to adjust any of our syllabi etc.

Thanks for your help and best wishes,

Richard

—

Richard G. Hennig

Professor, Materials Science and Engineering, University of Florida

Associate Director, Quantum Theory Project, University of Florida

Adjunct Professor, Materials Science and Engineering, Cornell University

Email: rhennig@ufl.edu

Web: <http://hennig.mse.ufl.edu>

On September 5, 2018 at 9:18:40 PM, Manuel, Michele (mmanuel@mse.ufl.edu)

wrote:

Richard,

Could you work with the curriculum committee to look at all the downstream effects of this change?

Thank you,

Michele

From: "Kirli,Serdar" <kirli@ise.ufl.edu>

Date: Wednesday, September 5, 2018 at 4:57 PM

To: "Manuel, Michele" <mmanuel@mse.ufl.edu>

Cc: "Hennig, Richard" <rhennig@ufl.edu>,

"MECHOLSKY,JOHN JOSEPH,JR" <jmech@mse.ufl.edu>,

"Schubring, DuWayne" <dlschubring@ufl.edu>

Subject: RE: Course Number change for EIN4354

We are aiming for 2019.

From: Manuel, Michele

Sent: Wednesday, September 05, 2018 4:48 PM

To: Kirli,Serdar <kirli@ise.ufl.edu>

Cc: Hennig, Richard <rhennig@ufl.edu>; MECHOLSKY,JOHN

JOSEPH,JR <jmech@mse.ufl.edu>; Schubring, DuWayne

<dlschubring@ufl.edu>

Subject: Re: Course Number change for EIN4354

Dear Serdar,

Thank you for reaching out to us. Could you tell me which catalog year this will be reflected in?

Best,

Michele

Michele V. Manuel, Ph.D., FASM

Rolf E. Hummel Professor of Electronic Materials and Chair

Department of Materials Science and Engineering

Nuclear Engineering Program

Herbert Wertheim College of Engineering

University of Florida

100 Rhines Hall, 549 Gale Lemerand Drive

Gainesville, Florida 32611-6400

Phone: 352.846.3780 Fax: 352.392.7219

Department: [www.mse.ufl.edu](http://www.mse.ufl.edu)

Research: [www.materialsdesigngroup.com](http://www.materialsdesigngroup.com)

From: "Kirli,Serdar" <kirli@ise.ufl.edu>

Date: Wednesday, September 5, 2018 at 3:50 PM

To: "Manuel, Michele" <mmanuel@mse.ufl.edu>

Cc: "Hennig, Richard" <rhennig@ufl.edu>

Subject: Course Number change for EIN4354

Dr. Manuel,

I am the undergraduate coordinator in Industrial and Systems Engineering. Our department has recently voted to change the course number for Engineering Economy from EIN4354 to EIN3354 to better reflect the fact that it is a junior level course. I am writing to inform you of this change and request your input, since this is a required course in your curriculum. Please let me know if this change would have any negative impact on your students or department.

Sincerely

Serdar Kirli, Ph.D.

Master Lecturer & Undergraduate Coordinator

Industrial and Systems Engineering

Herbert Wertheim College of Engineering

University of Florida

**Engineering Economy**  
EIN 4354 Sections 2605  
*Academic Term:* Spring 2018

***Instructor:***

Stan Uryasev  
Email Address: uryasev@ufl.edu  
Phone Number: 352-213-3457  
Office Hours: TBD

***Teaching Assistant:***

George Pertaia  
Email Address: Pertaia @ufl.edu  
Office Hours: TBD

***Course Description***

3 credits. Basic principles and applications of economic decision-making between alternatives encountered in engineering systems projects. Analysis includes methodologies of economics and finance in addition to engineering fundamentals.

***Course Pre-Requisites / Co-Requisites***

Pre-Requisites: MAC 2312 (Analytic Geometry and Calculus II), with a minimum grade of C.

***Course Objectives*** Upon completion, students should be able to do the following:

1. Understand the meaning of the “time value of money”, inflation, deflation, exchange rates, and interest and their application to economic analysis
2. Understand and apply the steps of the economic decision-making process, including defining a problem, generating solution alternatives, estimating cash flows, analysis, selection, implementation and post-implementation analysis,
3. Be able to financially describe investment alternatives with cash flows and cash flow diagrams
4. Be able to estimate before tax cash flows and convert them into after-tax cash flows under the assumption of current U.S. tax law
5. Understand the concept of economic equivalence for the basis of comparing mutually exclusive alternatives

***Materials and Supply Fees***

N/A

***Professional Component (ABET)***

1. Can become successful professionals in industrial and systems engineering or other disciplines.
2. Can acquire advanced knowledge through continuing education or advanced degree programs.

**Relation to Program Outcomes (ABET):**

Outcome	Coverage
a. Apply knowledge	Medium
b. Conduct experiments	
c. Design	
d. Function on teams	
e. Solve problems	High
f. Professional and ethical responsibility	Medium
g. Communicate	Low
h. Economic impact	High
i. Lifelong learning	
j. Contemporary issues	
k. Techniques, skills, and tools for degree program	High

**Required Textbooks**

- Course Notes are available for free downloading at Canvas site: M. Zabarankin and S. Uryasev, Course Notes: Engineering Economy, 2015.
- G. Newnan, J.P. Lavelle and T.G. Eschenbach, Engineering Economic Analysis, Oxford University Press, 2013, 12th edition. ISBN: 0199339279 (or G. Newnan, J.P. Lavelle and T.G. Eschenbach, Engineering Economic Analysis, Oxford University Press, 2017, 13th edition. ISBN: 978-0190296902).

**Course Format**

This is an online delivery course. Lecture notes, assignments, practice exercises, and extra information are all going to be available to you on the class website at CANVAS. The assignment submission system can be reached at the tab Assignments.

**Course Schedule**

The course Schedule is offered as a guide. This means that it is subject to change, depending on the pace of the class. The instructor might choose to cover parts of the curriculum more extensively, or give extensions to deadlines. The dates of the exams might be subject to change depending on the progress of the class.

Week	Modules	Quiz/Exam
1	General introduction	Q0, Q1
2	Estimating costs and benefits	Q2.1, Q2.2
3	Interest and equivalence	Q3.1, Q3.2, Q3.3, HW 1
4	Net present value analysis	
5	Net present value analysis (Cont'd)	Q4.1, Q4.2
6	Internal rate of return analysis	
7	Internal rate of return analysis (Cont'd)	Q5, HW2
8	Annual percentage rate	
9	Annual percentage rate (Cont'd)	Q6, Midterm Exam
10	Depreciation	
11	Depreciation (Cont'd)	Q7, HW3
12	Income taxes	
13	Income taxes (Cont'd)	Income taxes
14	Inflation and price change	Q9
15	Inflation and price change (Cont'd)	HW4
16		Final Exam

**Attendance Policy**

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Attendance is **not mandatory**. However, it is your responsibility to keep up with the class updates (material to be taught, quizzes, exams, etc.).

### **Exam Policy**

Under no circumstances students should expect an arrangement that will not require their physical presence to exams. Students needing a makeup exam, or special accommodation have to inform the instructor at least one week before the date of the exam. **Please do not ask for a makeup exam to attend a job interview or other non-emergency issues. Exceptions will be made for medical emergencies or other extraordinary occasions.**

### **Homework Assignments & Quizzes**

All homework assignments & quizzes must be submitted via the Course's website in the specified system unless specified otherwise. Submission of links to outside or cloud files does not constitute submission.

Assignment & quiz deadlines are rigid. If you submit during 24 hours after the deadline, you will receive 50% of the grade for this assignment. Submissions after 24 hours will not be considered. Lowest grades of two online quizzes will be dropped. Make-up of online quizzes will not be allowed. Lowest grade of one homework will be dropped. Any delays in taking the midterm and the final exam must be arranged with the instructor prior to the absence.

### **Evaluation of Grades**

<b>Assignment</b>	<b>Percentage of Final Grade</b>
Four homeworks (the lowest one will be dropped)	30% (equal weight)
In-class midterm exam	25%
Fourteen online quizzes (the lowest two will be dropped)	20% (equal weight)
Final in-class exam	25%
<b>Total</b>	<b>100%</b>

### **Grading Policy**

<b>Grade</b>	<b>Percent</b>
A	$\geq 93$
A-	[90, 93)
B+	[87, 90)
B	[83, 87)
B-	[80, 83)
C+	[77, 80)
C	[73, 77)
C-	[70, 73)
D+	[67, 70)
D	[63, 67)
D-	[60, 63)
E (F)	$< 60$

In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). This scale is tentative and will be adapted to the class performance. However, grade limits will not increase. For example, a 91% score at the end of the semester may transform either into scale corresponding A- grade, or to a higher (A) grade.

**Note:** a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy graduation requirement. For more information on grades and grading policies, please visit:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html> and  
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

### ***Re-grading Policy***

Any grade issues should be brought to the attention of the instructor within 10 days after posting the grades.

### ***Students Requiring Accommodations***

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***University Honesty Policy***

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Software Use***

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>



**U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

**Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

*Academic Resources*

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. **Various** ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus:** [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.