000041 5

Add Undergraduate Course

Course Attributes

Subject Abbreviation:	CPSC-Computer Science	**Catalog Title:**	Introduction to Design and Analysis of Algorithms	☐ **Additional Fee?**
Course Number:	3120	**Transcript Title:**	Design Analysis of Algorithms	Justification
Effective Term:	Fall 2016	**Cross-reference(s):**		
College:	Engineering and Science	**Grade Mode:**	Standard Letter	
Department:	School of Computing			

Form

User ID: mark **Name:** Mark Smotherman
Date: 02/10/2016 **Number:** 18389

Hours

Fixed Credit Course

Credit Hrs	Contact Hrs
3	3

Variable Credit Course

Credit Hrs		Contact Hrs	
Min	**Max**	**Min**	**Max**

Rationale for Add Course

- ☐ **Strengthen Program Requirement(s)**
- ☐ **Alignment of Student Learning Outcomes**
- ☐ **Alternative Delivery of Content**
- ☐ **Improve Time to Degree**
- ☑ **Evolution of the Discipline**
- ☐ **Changing Prerequisites**
- ☐ **Address DWF Rates**
- ☐ **General Education Modifications**
- ☐ **Other (Please specify.)**

Schedule Types

- ○ **Field Course**
- ○ **Independent Study**
- ○ **Internship**
- ○ **Lab No Fee**
- ○ **Lab With Fee**
- ◉ **Lecture**
- ○ **Other**
- ○ **Seminar**
- ○ **Studio**
- ○ **Tutorial**

Projected Enrollment

Year 1: 30
Year 2: 60
Year 3: 60
Year 4: 60

Evaluation

Undergraduate

A	90	-	100
B	80	-	89
C	70	-	79
D	60	-	69
F	<		60

Homeworks 20%; Programming assignments 20%; Two in-class exams 15% each; Final 30%

Catalog Description

Introduction to algorithm design and analysis. Topics include advanced data structires, amortized analysis, dynamic programming, graph algorithms, intractability, and applications.

☑ **Prerequisite(s)** ☐ **Corequisite(s)**

CPSC 2120

Statement of need and justification based on assessment of student learning outcomes

Computer science curriculum standards, such as the ACM 2013 computer science curriculum report, have included topics on the design and analysis of algorithms. This course will help us match the trends in national curriculum standards.

Textbook(s)

E. Tardos and J. Kleinberg, Algorithm Design, Addison Wesley, 2005

Learning Objectives

The student who successfulkly completes the course: (1) Shall understand the concepts and design techniques for algorithms used in diverse applications. (2) Shall be familiar with techniques of analyzing different algorithms theoretically as well as in practice. (3) Shall be able to implement algorithms using a programming language and evaluate their comparative performance. (4) Shall understand the role that algorithms play in problem solving in general.

Topical Outline

Design techniques: greedy approach, divide and conquer, and dynamic programming (9) Analysis tools: recurrence relations, average case analysis, amortization, lower bounds (10) Advanced data structures: variations on heap and search trees, Union-Find, hash tables (9) NP completeness and approximation algorithms (7) Case studies

and applications (5) In-class exams (2)

000042

6

Syllabus

Description: CPSC 3120 syllabus

Chair, Department Curriculum Committee — 2/11/16 Date

Department Chair — 2/11/16 Date

Chair, College Curriculum Committee — 2/25/16 Date

College Dean — 2/25/16 Date

Director, Calhoun Honors College — Date

Chair, Undergraduate Curriculum Committee — 3/4/2016 Date

Chair, Graduate Curriculum Committee — Date

Provost — 4-14-2016 Date

President — Date

CPSC 3120 Introduction to Design and Analysis of Algorithms

Motivation: We live in an exciting era thanks to ever-increasing advancements in communication and computing technologies. Consider, for example, how big data mining and DNA analysis have affected modern medicine, or smart search algorithms have made instantaneous availability of accurate information possible, or how cell phones, twitter, social networks have influenced political events.

Course Objectives: The objective in this class is for students to become familiar with Algorithms Design and Analysis concepts. The student who completes this course:

- shall understand the concepts and design techniques for algorithms used in diverse applications.
- shall get familiar with techniques of analyzing different algorithms theoretically as well as in real life settings of diverse application domains.
- shall be able to implement algorithms using a programming language and evaluate their comparative performance.
- shall get an understanding of how algorithms form a powerful lens through which to view problem solving in general.

Catalog Description: Introduction to algorithm design and analysis. Topics include advanced data structures, amortized analysis, dynamic programming, graph algorithms, intractability, and applications.

Tentative Outline of Topics:

1. Design Techniques: Greedy approach, divide and conquer, and dynamic programming
2. Analysis Tools: recurrence relations, average case analysis, amortization, lower bounds
3. Advanced data structures: variations on heaps and search trees, Union-Find, hash tables
4. NP completeness and approximation algorithms.
5. Modern case studies and applications

Tentative Textbook: Éva Tardös and Jon Kleinberg, "Algorithm Design", Addison-Wesley

Grading: 20% Homeworks, 20% Programming Assignments, 15% each two Midterms, and 30% one comprehensive final.

000044 8

Add 4000/6000 Course

Course Attributes

Subject Abbreviation:	CPSC-Computer Science	**Catalog Title:**	Usable Privacy and Security ☐ **Additional Fee?**
Course Number:	4180 / 6180	**Transcript Title:**	Usable Privacy and SecurityJustification
Effective Term:	Fall 2016	**Cross-reference(s):**	
College:	Engineering and Science	**Grade Mode:**	Standard Letter
Department:	School of Computing		

Form

User ID: mark **Name:** Mark Smotherman
Date: 02/10/2016 **Number:** 18460

Hours

Fixed Credit Course

Credit Hrs	Contact Hrs
3	3

Variable Credit Course

Credit Hrs		Contact Hrs	
Min	**Max**	**Min**	**Max**

Rationale for Add Course

- ☐ **Strengthen Program Requirement(s)**
- ☐ **Alignment of Student Learning Outcomes**
- ☐ **Alternative Delivery of Content**
- ☐ **Improve Time to Degree**
- ☑ **Evolution of the Discipline**
- ☐ **Changing Prerequisites**
- ☐ **Address DWF Rates**
- ☐ **General Education Modifications**
- ☐ **Other (Please specify.)**

Schedule Types

- ○ **Field Course**
- ○ **Independent Study**
- ○ **Internship**
- ○ **Lab No Fee**
- ○ **Lab With Fee**
- ◉ **Lecture**
- ○ **Other**
- ○ **Seminar**
- ○ **Studio**
- ○ **Tutorial**

Projected Enrollment

Year 1: 30
Year 2: 45
Year 3: 60
Year 4: 60

Evaluation

4000

A	90	-	100
B	80	-	89
C	70	-	79
D	60	-	69
F	<		60

Project proposal 10%; Technical report 20%; In-class presentations 20%; Quizzes/Assignments/Homeworks 25%; Participation 15%; Final exam 10%

6000

A	90	-	100
B	80	-	89
C	70	-	79
F	<		70

Project proposal 10%; Technical report 20%; In-class presentations 25%; Quizzes/Assignments/Homeworks 20%; Participation 5%; Academic paper presentation 10%; Final exam 10%

Catalog Description

Survey of the field of usable security and privacy with an emphasis on emerging technologies. Topics include authentication, location privacy, social network privacy, behavioral advertising, health privacy, anonymity, cryptocurrency, technical writing and ethical conduct of usable privacy and security research.

☑ **Prerequisite(s)** ☐ **Corequisite(s)**

For CPSC 4180: CPSC 2150 or IE 4880 or PSYC 3100 or PSYC 4350 or POSC 4280 or ECE 4490, each with a C or better. For CPSC 6180: Students are expected to have completed coursework in at least one of: software development, human factors, experimental psychology, security policy, or computer security.

Statement of need and justification based on assessment of student learning outcomes

Secure and privacy-preserving technologies are often thought to have inherent and unavoidable usability flaws. However, developing a secure system requires that human users of the system can accomplish tasks efficiently and without error. Usable security and privacy research tackles both the social and technical challenges involved in

000045

9

developing information technologies that are simultaneously easy to use, useful, secure and privacy-preserving. This course emphasizes usable privacy and security in emerging technologies and to provide hands-on experience in the evaluation of security and privacy technologies.

Textbook(s)
L. Cranor and S. Garfinkel, Security and Usability: Designing Secure Systems that People Can Use, O'Reilly, 2005.

Learning Objectives
1. Recognize the value and need for secure and private computing 2. Identify user needs related to private and secure computing 3. Collaborate with peers to evaluate the usability of a privacy or security technology 4. Design solutions to improve the UI of selected privacy or security technologies 5. Communicate the results of a usability evaluation of a privacy or security technology

Topical Outline
1. Overview of need for usable privacy and security (2 hours) 2. Cryptography (5 hours) 3. User authentication (5 hours) 4. Location privacy (5 hours) 5. Social network privacy (5 hours) 6. Behavioral advertising and user tracking (5 hours) 7. Health privacy (5 hours) 8. Anonymity (5 hours) 9. Authorship recognition and circumvention (2 hours) 10. Cryptocurrency (3 hours) 11. Ethical conduct of usable privacy and security research (3 hours)

Add course requirements for 6000-level courses
Graduate students taking this course at the 6000 level will be required to complete an academic paper presentation and take a lead role in group project presentations.

Syllabus
Upload File: Usable Privacy and Security-20160210210940.pdf

Description: CPSC 4180/6180 syllabus

Chair, Department Curriculum Committee — 2/11/16 Date

Department Chair — 2/11/16 Date

Chair, College Curriculum Committee — 2/25/16 Date

College Dean — Date

Director, Calhoun Honors College — Date

Chair, Undergraduate Curriculum Committee — 3/4/2016 Date

Chair, Graduate Curriculum Committee — Date

Provost — 4-14-2016 Date

President — Date

Syllabus

CPSC 4180/6180	Usable Privacy and Security

Instructor:
Kelly Caine, PhD
Office: McAdams 213
Office Hours: TBD
Phone: 656-0631
Email:caine@clemson.edu

Goals and Student Learning Objectives: The goal of this course is to survey the field of usable security and privacy with an emphasis on emerging technologies and to provide hands-on experience in the evaluation of security and privacy technologies.

Specific learning objectives include:

1. Recognize the value and need for secure and private computing
2. Identify user needs related to private and secure computing
3. Collaborate with peers to
4. Evaluate the usability of a privacy or security technology
5. Design solutions to improve the UI of selected privacy or security technologies
6. Communicate the results of a usability evaluation of a privacy or security technology

Course Learning Outcomes: Demonstrated knowledge of usable privacy and security concepts and principles, and ability to recognize, evaluate and improve the security and privacy of a computing system from a user perspective.

Text: Selected chapters from: Cranor, L & Garfinkel, S. (2005). *Security and Usability: Designing Secure Systems that People Can Use*. O'Reilly. ISBN: 978-0596008277

Software: We will use RefWorks for citation management and databases such as the ACM database and IEEE Explore for review of literature. Refworks is available for free from CCIT (http://www.clemson.edu/ccit/software_applications/software/).

Grading:

	Percent of Grade	
Assignments	**Undergrad – 4180**	**Grad – 6180**
Project proposal	10%	10%
Technical report	20%	20%
In class presentations	20%	25%
Quizzes/Assignments/HW	25%	20%
Class participation	15%	5%
Academic paper presentation	N/A	10%
Exam	10%	10%

Grading Scale:

	Final grade	
Percentage of points	**Undergrad – 4180**	**Grad – 6180**
90%	A	A
80%	B	B
70%	C	C
60%	D	F
<60%	F	F

Attendance: Regular attendance is necessary for each student to obtain maximum benefits from instruction. Regular and punctual attendance at all class sessions is a student obligation, and each student is responsible for all the work, including tests and written work, in all class sessions. No right or privilege exists that permits a student from any given number of class sessions. (http://grad.clemson.edu/faculty/documents/GraduateClassRegulationsCurrent.pdf)

Notification of Absence in MyCLE: If you plan to miss class, please notify me via email. You may, in addition, use the Notification of Absence module in MyCLE (http://mycle.clemson.edu/) to inform m of either an anticipated or an unanticipated absence. With the Notification of Absences module, students can quickly notify all of their instructors of an absence. Excusable absences include emergency medical treatment, family emergencies (such as death in the family), approved institute activities (such as student athlete travel) and job interviews. Bear in mind that manufacturing a false excuse is a violation of the Honor Code. In the event of any such excusable absence please provide documentation to the instructor upon returning to class. If no documentation is provided the absence will be considered unexcused. It remains the student's responsibility to follow-up with professors to discuss any work which may be missed. A professor may require documentation (e.g., a walk-out statement from Redfern); as always, the professor is the one who determines if a student's absence is excused.

Instructor Absence: Students may leave after 15 minutes if the professor or guest lecturer does not arrive within that time.

Inclement Weather: Any exam or assignment scheduled at the time of a class cancellation due to inclement weather will be given/due at the next class meeting. Should an extension or postponement of assignments or exams be necessary, the instructor will notify students by email within 24 hours of the weather related cancellation.

Students with Disabilities: In accordance with University policy I will do my best to provide reasonable accommodations to students with disabilities. Students should contact Student Disability Services (www.clemson.edu/sds) and me to discuss their individual needs for accommodation within the first two weeks of class.

Equal Opportunity and Sexual Harassment Policy (Title IX): Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran's status, genetic information or protected activity in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at http://www.clemson.edu/campus-life/campus-services/access/title-ix/. Mr. Jerry Knighton is the

Clemson University Title IX Coordinator. He also is the Director of Access and Equity. His office is located at 110 Holtzendorff Hall, 864.656.3184 (voice) or 864.565.0899 (TDD).

Academic Integrity: "As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a 'high seminary of learning'. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form."

Collaboration Policy: In and out of class assignments are opportunities for learning and discovery. Collaboration between students on homework assignments in this class is permitted. Collaboration includes students working together to gain an understanding of course concepts, active discussions with the instructor and other people to learn about course material, and other activities in which a student is actively seeking to learn and understand the topics covered in the course. I do expect that you understand and can explain any homework that you submit, no matter how you worked on it.

As has always been the case, however, plagiarism is not allowed. Taking assignments from other classmates or downloading completed assignments from websites is not allowed. These are activities that are simply meant to earn a score, not understand the course material. If you collaborate with other students in class or use sources other than those provided for everyone in the course (e.g., instructor, recommended textbook, the course web site, or the lectures) to help yourself learn and understand, then you must give appropriate credit to those collaborators and/or sources. As long as you acknowledge the collaboration that occurred, your grade will not be affected nor will you be charged with academic misconduct. On the other hand, a failure to acknowledge collaborations or give appropriate credit to sources of help (other than course materials or personnel as noted above) will be treated as plagiarism.

Contributorship Statement: To ensure that you acknowledge contributions, collaborations and sources, you are required to include a contributorship statement at the beginning of every assignment that you submit. The contributorship statement should say either:

"I worked on this assignment alone, using only course materials."

- or -

"I worked on this assignment with [give the names of the people you worked with]. My role in completing the assignment was [provide description of all your contributions], while [provide names of other collaborators] role in completing the assignment was [provide a description of their contributions]. We consulted related material that can be found at [cite any other materials not provided as course materials]."

Any assignment that does not include a collaboration statement will receive a grade of zero.

000049 57

Change Undergraduate Course

Change a Course

Subject: ECE-Electrical and Comp Engr

Number: 4120

Effective Term: Fall 2016

Title: Elect Mach Lab

Honors Course:

☐ Add Honors Course:

Last Term Course was taught: 201508

Brief Statement of Change Based on Assessment Results:
Approved by the power committee. The course currently had prerequisites Math 4340 and ECE 3600 or ECE 4190. Because 4190 has 3600 as a prerequisite, this requirement was redundant. The Math requirement was seen as not representing the current requirements of the course (which is a lab).

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☑ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☑ Change Prerequisite(s) / Corequisite(s)

From Math 4340 and ECE 3600 or 4190
To ECE 3600

Learning Objectives

This laboratory is intended to provide experience working with single and three phase power. The laboratory experiments include basic AC analysis, transformers, machines, and transmission lines. The experiments are meant to reinforce the topics covered in ECE 360. The student will also learn how to effectively communicate experiment results in writing.

Topical Outline

This laboratory is intended to provide experience working with single and three phase power. The laboratory experiments include basic AC analysis, transformers, machines, and transmission lines. The experiments are meant to reinforce the topics covered in ECE 360. The student will also learn how to effectively communicate experiment results in writing.

Evaluation

Undergraduate

A	90	-	100
B	80	-	89
C	70	-	79
D	60	-	69
F	<		60

Experiments: 40% Postlabs/Lab Reports: 40% Two Exams: 20%

Syllabus

Upload File: ECE4120 Syllabus Fall 15-20160125151034.pdf

Form

User ID: cstrimp **Name:** Courtney Honeycutt

Carl Bass 1/27/16

Chair, Department Curriculum Committee Date

D. Monahan 1/27/16

Department Chair Date

2/25/16

Chair, College Curriculum Committee Date

2/25/16

College Dean Date

Director, Calhoun Honors College Date

John D. Griffin 3/4/2016

Chair, Undergraduate Curriculum Committee Date

Chair, Graduate Curriculum Committee Date

Robert H Jones 4-14-2016

Provost Date

President Date

Change Undergraduate Course

Change a Course

Subject: ENGR-Engineering

Number: 1050

Effective Term: Spring 2016

Title: Engr Discipline & Skills I

Honors Course:

☐ Add Honors Course:

Last Term Course was taught: 201508

Brief Statement of Change Based on Assessment Results:
Adding a contact hour to match contact hours in ENGR 1020/1021. The addition of the contact hour will allow us to incorporate back into the course several skills based items that were removed when the course was originally created. These items include calculator and computer use, file management, study skills, "how to be a college student", and allowing the time to make abstract concepts more concrete with physical examples.

Rationale for Changing a Course

- ☐ **Strengthen Program Requirement(s)**
- ☐ **Alignment of Student Learning Outcomes**
- ☐ **Alternative Delivery of Content**
- ☐ **Improve Time to Degree**
- ☐ **Evolution of the Discipline**
- ☐ **Changing Prerequisites**
- ☐ **Address DWF Rates**
- ☐ **General Education Modifications**
- ☑ **Other (Please specify.)**

Aligning Contact Hourse with ENGR 1020

☑ Change of Credit

From

Fixed Credit Course

Credit Hrs	Contact Hrs
1	2

Variable Credit Course

Credit Hrs		Contact Hrs	
Min	Max	Min	Max

To

Fixed Credit Course

Credit Hrs	Contact Hrs
1	3

Variable Credit Course

Credit Hrs		Contact Hrs	
Min	Max	Min	Max

Learning Objectives

1. Identify fundamental dimensions, base units, and named derived dimensions and units 2. Apply laws governing dimensions, units, and equation development 3. Express observations in appropriate units and perform conversions between unit systems 4. Define, recall, and utilize basic mathematical and physical sciences principles, including but not limited to: amount, density, efficiency, electrical concepts, energy, force, mass, power, pressure, temperature and weight

Topical Outline

Module 1: Foundational Engineering Concepts [1] • Fundamental Dimensions and Base Units • Basic Conversion Procedures Module 2: Problem Solving involving Conversions [3] • Equations involving Unit Conversions • Density • Force • Weight Module 3: Problem Solving involving Equations [3.5] • Derived Dimensions and Units • Equation Laws • Pressure (hydrostatic, total) • Temperature Equations Module 4: Problem Solving with Initial and Final Conditions [1.5] • Amount • Ideal Gas Module 5: Problem Solving with Conservation Laws [4] • Kinetic Energy • Potential Energy • Thermal Energy • Temperature Ratios • Work Module 6: Problem Solving with Rate and Loss [2.5] • Power • Efficiency Module 7: Problem Solving with Dynamic Systems [2] • Charge • Current Module 7: Problem Solving with Dynamic Systems (continued) • Resistance • Voltage

Evaluation

Undergraduate

A	90	-	100
B	80	-	89
C	70	-	79
D	60	-	69
F	<		60

Assignments - 5% Midterm Exam - 40% Final Exam - 55%

Syllabus

Upload File: ENGR 1050 Syllabus-20160202104745.pdf

Description: ENGR 1050 Syllabus

Form

User ID: jminor **Name:** John Minor

Date: 02/02/2016 **Number:** 17831

Chair, Department Curriculum Committee — 2/3/2016 — Date

Department Chair — 2/3/16 — Date

Chair, College Curriculum Committee — 2/25/16 — Date

College Dean — 2/25/16 — Date

Director, Calhoun Honors College — Date

Chair, Undergraduate Curriculum Committee — 3/4/2016 — Date

Chair, Graduate Curriculum Committee — Date

Provost — 4-14-2016 — Date

President — Date

Change Undergraduate Course

Change a Course

Subject: ENGR-Engineering
Number: 1060
Effective Term: Spring 2016
Title: Engr Discipline & Skills II
Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 201508

Brief Statement of Change Based on Assessment Results:
Adding a contact hour to match contact hours in ENGR 1020/1021. The addition of the contact hour will allow us to incorporate back into the course several skills based items that were removed when the course was originally created. These items include calculator and computer use, file management, study skills, "how to be a college student", and allowing the time to make abstract concepts more concrete with physical examples.

Rationale for Changing a Course

- ☐ **Strengthen Program Requirement(s)**
- ☐ **Alignment of Student Learning Outcomes**
- ☐ **Alternative Delivery of Content**
- ☐ **Improve Time to Degree**
- ☐ **Evolution of the Discipline**
- ☐ **Changing Prerequisites**
- ☐ **Address DWF Rates**
- ☐ **General Education Modifications**
- ☑ **Other (Please specify.)**

Aligning Contact Hourse with ENGR 1020

☑ Change of Credit

From
Fixed Credit Course

Credit Hrs	Contact Hrs
1	2

Variable Credit Course

Credit Hrs		Contact Hrs	
Min	Max	Min	Max

To
Fixed Credit Course

Credit Hrs	Contact Hrs
1	3

Variable Credit Course

Credit Hrs		Contact Hrs	
Min	Max	Min	Max

Learning Objectives

1. Create "proper" plots of experimental and theoretical data 2. Determine graphical solutions to problems, with special emphasis on economic breakeven analysis 3. Identify a linear, power and exponential mathematical models from an equation form and a graphical sketch 4. Interpret mathematical models in terms of physical phenomena 5. Evaluate a logarithmic plot to determine an appropriate mathematical model to describe experimental data 6. Use Microsoft Excel to: a. enter data and text b. format information c. write basic mathematical formulas d. use absolute, relative, and mixed cell addressing e. utilize built-in functions, including mathematical, statistical, trigonometric and LOOKUP f. create conditional statements g. apply conditional formatting, data validation, sorting and filtering to a worksheet h. create proper plots of experimental and theoretical data i. model experimental data with a trendline j. create logarithmic plots

Topical Outline

Module 1: Foundational Engineering Concepts [1] • Basic Excel Workbook • Cell References • Built-in Excel Functions Module 2: Graphical Representation [1] • Proper Plots • Graphing in Excel • Trendlines in Excel Module 3: Automation of Problem Solving [1] • Conditionals in Excel Module 4: Interaction of Engineering Tools [2] • LOOKUP functions in Excel • Conditional Formatting in Excel • Data Validation • Sort and Filter Module 5: Graphical Interpretation [2] • Graphical Solutions • Breakeven Analysis Module 6: Model Interpretation [2] • Exponential Models • Linear Models • Power Law Models Module 7: Model Development [1] • Logarithmic Plots (log-log, semilog)

Evaluation

Undergraduate

A	90	-	100
B	80	-	89
C	70	-	79
D	60	-	69
F	<		60

Assignments - 5% Midterm Exam - 40% Final Exam - 55%

Syllabus

Description: ENGR 1060 Syllabus

Form

User ID: jminor **Name:** John Minor
Date: 02/02/2016 **Number:** 17850

Chair, Department Curriculum Committee	2/3/2016 Date
Department Chair	2/3/16 Date
Chair, College Curriculum Committee	2/25/16 Date
College Dean	2/25/16 Date
Director, Calhoun Honors College	Date
Chair, Undergraduate Curriculum Committee	3/4/2016 Date
Chair, Graduate Curriculum Committee	Date
Provost	4-14-2016 Date
President	Date

000063

1/19/2015

From: Exec. Director, General Engineering Program

To: Registrar

Via: Dean, College of Engineering and Science
Chair, College of Engineering and Science Curriculum Committee

Subj: Request for Blanket Substitution for ENGR 1020/21 and ENGR 1410/1411

1. The General Engineering Program requests that a blanket substitution be provided for ENGR 1020/1021 and ENGR 1410/1411 for the Spring 2016 term through the Spring 2017 term. In reviewing the data from the last 3 semesters of the new half-semester courses, we believe that a return to the full semester course for the main cohort is necessary based on the following reasons:

a. Students taking the half-semester sequence have fewer opportunities to recover from a failing exam grade resulting in more withdrawals from the half-semester course after the first exam. In a full-semester course there are twice as many grading opportunities to make up a poor exam grade.

b. The change will streamline the registration process for the courses as our current registration software, iROAR, does not allow for complete pre-requisite checking with our current sequencing of half-semester courses thus increasing the amount of manual checking required by our student services coordinators.

c. Registration will be easier for the main cohort as each student had to manually match sections for each of the half-semester courses they were taking as opposed to having the iROAR system requiring the match to occur as it does for full-semester courses, preventing students from improperly registering and subsequently requiring manual intervention to correct.

2. The half-semester courses will remain as alternatives for those students wishing to accelerate their pace through the General Engineering program by taking one or more of the modules during the summer. Additionally, those students who find they are struggling may opt to withdraw from the full-semester course prior to the half-way point in the semester in order to repeat the material in the half-semester module corresponding to the first part of the full-semester course. As these numbers are only about 10% of the total in the cohort, the manual intervention required is manageable. This hybrid will allow both those who wish to accelerate and those who are struggling the opportunity to individualize their approach to completing the General Engineering course sequence.

3. Specifically the General Engineering Program would like to request:

- ENGR 1020/1021 should be substituted for the combination of ENGR 1050 and ENGR 1060.
- ENGR 1410/1411 should be substituted for the combination of ENGR 1070, ENGR 1080, and ENGR 1090.

In each case the number of credit hours and course content for each substitution are the same. ENGR 1050, 1060, 1070, 1080 and 1090 will remain as active courses. These changes, if approved, will become a part of the curriculum through the curriculum process to support the Fall 2017 term (deadline December 2016 curriculum committee meeting).

R. J. Watkins Jr.
Exec. Dir. General Engineering Program

Brian N. Dominy
Chair. CoES Curriculum Committee

Karen A. High
Associate Dean of Undergraduate Studies, CoES

Temporary Approval Given

John D. Wiffe 3/4/2016