

UNIVERSITY OF HAWAI'I  
CODE REQUEST FORM FOR ACADEMIC PROGRAM CODES

REQUESTOR CONTACT INFORMATION	
Date: 12/9/2014	Effective term of request (Semester-Year): Fall 2015
Name: Kathlen Lee	Title: Educational Specialist
Campus: Kauai Community College	Office/Department: Science and Mathematics
Phone: (808) 245-8204	Email: kathlen@hawaii.edu

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE		Banner forms: SMAPRLE, SOACURR, STVMAJR
Institution:	College:	Department:
<input type="checkbox"/> New program code <input type="checkbox"/> Change/replace existing program code:		
Level: <input type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate <input type="checkbox"/> First-Professional <input type="checkbox"/> Post-Baccalaureate <input type="checkbox"/> Other:		
Degree:	Certificate:	
If requesting an existing Major code and/or Concentration code in Banner:		
Existing Major:	Existing Concentration:	
<small>Code</small>	<small>Description</small>	<small>Code</small> <small>Description</small>
If requesting a new <input type="checkbox"/> Major code or <input type="checkbox"/> Concentration code that does not exist in Banner:		
New Code [4 char/space limit]:	Description [30 char/space limit]:	
If a similar major/concentration code exists in Banner, please list the code:		
Is this major/concentration code being used the same way at other UH campuses?		
Is 50% or greater of the classes in this program offered at a location other than the Home Campus? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>(Please consult your Financial Aid Officer on Program Participation Agreement impact)</small>		
Is this program/major/certificate financial aid eligible? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>(Financial Aid Officer consultation required for all new program codes)</small>		
Should this program be available for applicants to select as their planned course of study on the online application? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>(If yes, students may select the code as their <u>only</u> program of study.)</small>		

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**Replacing or eliminating an existing program code:**

If replacing an existing program code, are current students "grandfathered" under the old code?  Yes  No

Should the old program code be available for use in Banner?  Yes  No

Will the old program code be available for:	Banner Module	Yes	No	Ending Term (Semester-Year)
	Online Application	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Recruitment	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Admissions	<input type="checkbox"/>	<input type="checkbox"/>	_____
	General Student	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Academic History	<input type="checkbox"/>	<input type="checkbox"/>	_____

**2. CERTIFICATES ONLY:**

Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)?  Yes  No  
(Please consult your Financial Aid Officer or see: <http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html>)

For new certificates approved by the Chancellor, the related BOR authorized academic program is:

**3. NEW CAMPUS, COLLEGE, DIVISION, OR DEPARTMENT CODE**

Banner forms: STVCAMP, STV\_COLL, STVDIVS, STVDEPT

Campus code [3 char]:	Campus description [30 char/space limit]:
College code [2 char]:	College description [30 char/space limit]:
Division code [4 char/space limit]:	Division description [30 char/space limit]:
Department code [4 char/space limit]:	Department description [30 char/space limit]:

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<b>4. NEW COURSE SUBJECT CODE (Subject Alpha)</b>		Banner form: STVSUBJ
College: Instructional	Department: Science and Mathematics Division	
Subject code [4 char/space limit]: EE	Subject description [30 char/space limit]: Electrical Engineering	

<b>5. NEW MINOR</b> (Minor codes are listed on the Major code table)		Banner form: STVMAJR
Minor Code [4 char/space limit]:	Minor Description [30 char/space limit]:	

Please briefly describe your request and explain why you are requesting the code(s):


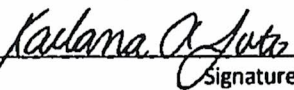
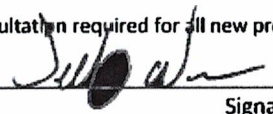
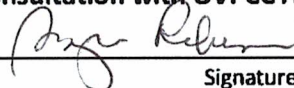
The Electronics Technology department is proposing new EE courses to help fulfill a future a future concentration in pre-engineering under the Associate in Science in Natural Science degree.

**SUPPORTING DOCUMENTATION**

Please see the **Code Request Guide** for the required supporting documents to be submitted. Documents submitted with this form:

- Board of Regents meeting minutes and supporting documents provided to the BOR
- Memo from UH President
- Memo from Chancellor
- Curriculum (required for requests for new programs/majors/minors/certificates)
- Gainful Employment Program notification to the US Department of Education
- Other: Email approval from Chancellor of proposed EE course

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<b>CAMPUS VERIFICATION</b>		
Requestor Signature		Date <u>12/10/14</u>
Registrar (If different from Requestor)		
Kailana Soto		<u>12/12/14</u>
Print name	Signature	Date
Email/memo in lieu of Registrar's signature may be attached		
Financial Aid Officer (Financial Aid Officer consultation required for all new program codes)		
Jeff Anderson		<u>12/15/14</u>
Print name	Signature	Date
Email/memo in lieu of Financial Aid Officer's signature may be attached		
<b>For Community Colleges, verification of consultation with OVPCC Academic Affairs:</b>		
<u>Suzette Robinson</u>		<u>12/16/14</u>
Print name	Signature	Date
Email/memo in lieu of signature may be attached		

**Send completed form and supporting documentation to:**

Institutional Research and Analysis Office (IRAIO)  
 1633 Bachman Place                      Email: iro-mail@lists.hawaii.edu  
 Sinclair Annex 2, Room 4              Fax: 808-956-9870  
 Honolulu, HI 96822                      Phone: 808-956-7532

**After all required forms and supporting documents have been submitted, please allow at least two weeks for processing by IRAO and Banner Central.**

<b>FOR INTERNAL USE ONLY</b>	Date form/docs received:
Program code [12]:	Program Description [30]:
CIP code [6]:	CIP description [30]:



UNIVERSITY  
of HAWAII  
SYSTEM

Kathlen Lee <kathlen@hawaii.edu>

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**CC: Course Outline (EE 160) Approved**

1 message

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helencox@hawaii.edu <helencox@hawaii.edu>

Tue, Dec 9, 2014 at 11:16 AM

To: alquiza@hawaii.edu, arnette@hawaii.edu, ctennber@hawaii.edu, gdrent@hawaii.edu, kailana@hawaii.edu, kathlen@hawaii.edu, mooy@hawaii.edu, pmcgrath@hawaii.edu, rkincaid@hawaii.edu, rsrandol@hawaii.edu, tnapoleo@hawaii.edu

This is to inform you that outline EE 160 was recently approved.

Log in to Curriculum Central

**NOTE:** This is an automated response. Do not reply to this message.

## Kauai Community College EE 160 - Programming for Engineers

**1. What is the purpose of this modification/proposal?**

New course proposal.

**2. The existing course alpha and/or number is being modified (skip this question if the course alpha/number will remain the same).**

Existing alpha or number listed below (only if a new alpha or number is being modified ).

CURRENT ALPHA:

CURRENT NUMBER:

**3. Why is this proposal being submitted?**

This course supports a pre-engineering emphasis. It would also satisfy a future concentration in pre-engineering through KCC's ASNS degree and be valuable to students pursuing other science and technology careers such as astronautics, astronomy and space science related programs. Furthermore, this course would assist students involved in Space Grant research projects. This course mirrors the same first year course at UH Manoa.

**4. A copy of the programs and/or courses that are impacted by this course (e.g., in a program's/course's pre-requisite, description, etc.) is attached as a PDF. If this is a new course or an inactive course being reactivated, there will be nothing to attach (proposers will skip this question)**

**5. Course alpha.**

EE

**6. Course number.**

160

**7. Catalog title.**

Programming for Engineers

**8. Catalog description.**

This is an introductory course on computer programming and modern computing environments with an emphasis on algorithm and program design, implementation and debugging. Designed for engineering students, this course includes a hands-on laboratory to develop and practice programming skills.

**9. Maximum enrollment per class section.**

15

**10. Credits.**

4

**11. How many hours of instruction (lecture, lab, etc.) per week are required for the semester?**

- Lecture (Ratio - 1 contact hour : 1 credit) (3)
- Laboratory (Ratio - 3 contact hours : 1 credit) (3)

**12. Is this course repeatable for credit? If yes, how often can this course count towards a degree or certificate?**

NO

This course is repeatable for a maximum of:

**13. Is this course cross-listed with any other course on campus?**

NO

**14. Pre-requisites.**

Qualified for MATH 205 (Calculus I) or concurrent enrollment in MATH 140

**15. Recommended preparation (Information included for college catalog only).**

None

**16. Co-requisites.**

None

**17. What is the effective term for the changes proposed for this course?**

Fall 2015

**18. List all course student learning outcomes (CSLOs) that apply to this course.**

Course SLO
Explain the steps involved in the programming process.
Solve simple problems and express those solutions as algorithms.
Use the fundamental techniques of selection, looping, assignment, input, and output to describe the steps the computer takes to solve a problem.
Write algorithms and code in a top-down manner.
Demonstrate arrays in searching and sorting applications.
Demonstrate structures and unions types.
Write, test, and debug small programs.
Write functions and use pointers.
Work with characters and strings.
Work in text-based environment like UNIX.
Interface with text base using a GUI interface.

**19. Select methods of assessment from the list provided and show how they align with the CSLOs.**

- Demonstration (0)
- Objective tests (0)

Method of Evaluation/Course SLO	Explain the steps involved in the programming process.	Solve simple problems and express those solutions as algorithms.	Use the fundamental techniques of selection, looping, assignment, input, and output to describe the steps the computer takes to solve a problem.	Write algorithms and code in a top-down manner.	Demonstrate arrays in searching and sorting applications.	Demonstrate structures and unions types.	Write, test, and debug small programs.	Write functions and use pointers.	Work with characters and strings.	Work in text-based environment like UNIX.	Interface with text base using a GUI interface.
Demonstration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Objective tests			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

**20. Include program student learning outcomes (PSLOs) and show how they align with the CSLOs.**

Program SLO/Course SLO	Explain the steps involved in the programming process.	Solve simple problems and express those solutions as algorithms.	Use the fundamental techniques of selection, looping, assignment, input, and output to describe the steps the computer takes to solve a	Write algorithms and code in a top-down manner.	Demonstrate arrays in searching and sorting applications.	Demonstrate structures and unions types.	Write, test, and debug small programs.	Write functions and use pointers.	Work with characters and strings.	Work in text-based environment like UNIX.	Interface with text base using a GUI interface.

			problem.								
Associate in Science - Natural Science PSLOs (updated 3/1/2013): Analyze data effectively using currently available technology.											
Communicate scientific ideas and principles clearly and effectively.	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>							
Analyze and apply fundamental mathematical, physical, and chemical concepts and techniques to scientific issues.											
Apply fundamental concepts and techniques in their chosen natural science field of student, such as biology, chemistry, engineering, physics, etc.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**21. Select all institutional student learning outcomes (ISLOs) that apply to this course and show how they align with the CSLOs.**

<input type="checkbox"/>	<b>(Respect for Diversity)</b> - Demonstrate cognitive, affective, and behavioral skills and characteristics that are respectful of others' opinions, feelings, values, and individual expression.
<input type="checkbox"/>	<b>(Written Communication)</b> - Write in clear and organized Standard American English to present, explain, and evaluate ideas, to express feelings, and to support conclusions, claims, or theses.
<input type="checkbox"/>	<b>(Oral Communication)</b> - Speak in understandable and organized Standard American English to explain ideas, to express feelings, and to support conclusions, claims, or theses. Receive, construct meaning from, and respond to spoken and/or nonverbal messages.
<input type="checkbox"/>	<b>(Reading)</b> - Read, evaluate, and interpret written material critically and effectively.
<input checked="" type="checkbox"/>	<b>(Symbolic Reasoning)</b> - Use appropriate mathematical and logical concepts and methods to understand, analyze, and explain issues. <input checked="" type="checkbox"/> Preparatory Level
<input type="checkbox"/>	<b>(Integrative Thinking)</b> - Use problem-solving skills and creative thinking strategies to make connections among ideas and experiences and to synthesize and transfer learning to new and varied situations.
<input type="checkbox"/>	<b>(Information Literacy)</b> - Locate, retrieve, evaluate, and interpret the value of information gained from reading text materials, making observations, and using electronic media, and reflectively use that information.
<input checked="" type="checkbox"/>	<b>(Technological Competency)</b> - Identify, allocate, and utilize technological resources effectively. <input checked="" type="checkbox"/> Preparatory Level



<b>(Teamwork)</b> - Participate proactively and interact cooperatively and collaboratively in a variety of settings.
<b>(Ethics)</b> - Demonstrate an understanding of ethical issues in public and personal contexts that can be used to make sound judgments and decisions.

GenED SLO/Course SLO	Explain the steps involved in the programming process.	Solve simple problems and express those solutions as algorithms.	Use the fundamental techniques of selection, looping, assignment, input, and output to describe the steps the computer takes to solve a problem.	Write algorithms and code in a top-down manner.	Demonstrate arrays in searching and sorting applications.	Demonstrate structures and unions types.	Write, test, and debug small programs.	Write functions and use pointers.	Work with characters and strings.	Work in text-based environment like UNIX.	Interface with text base using a GUI interface.
(Symbolic Reasoning) - Use appropriate mathematical and logical concepts and methods to understand, analyze, and explain issues.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
(Technological Competency) - Identify, allocate, and utilize technological resources effectively.										<input checked="" type="checkbox"/>	

**22. List the topics and activities that will be presented during the course and include the approximate time spent on each topic.**

Computer systems 10%  
 Programming structures and standards 80%  
 Computer I/O 10%

**23. List possible textbooks and/or materials appropriate for this course. If there are none, explain why.**

- Etter, Delores M.. Engineering Problem Solving with C. 2013, ISBN-10: 0136085318.

**24. What course delivery methods will be used?**

- Classroom/Lab/Studio (0)

**25. What teaching methods are required for this course?**

- Hands-on learning (0)
- Other - explain (0)

Other: extensive use of computer

**26. Suggested grading and evaluation.**

- Grading Scale:
  - A = 90 - 100%
  - B = 80 - 89%
  - C = 70 - 79%
  - D = 60 - 69%
  - F = 59% and below (0)

A student's overall course grade will be calculated by means of the following weighted criteria:

- 60% - Exercises and homework
- 15% - midterm
- 15% - final
- 10% - attendance and participation

**27. Include similar courses taught at other UH campuses and, if applicable, explain how course content is different.**

List similar courses taught...	Course alpha and number	Explain how course content is different
...at another KCC campus unit(s)		
...at Hawaii CC		
...at Honolulu CC		
...at Kapiolani CC	EE160	same
...at Leeward CC		
...at Windward CC		
...at UH Hilo		
...at UH Manoa	EE160	same
...at UH Maui College		
...at UH West Oahu		

**28. Is this course already articulated, appropriate for articulation, or not appropriate for articulation? If this course is already articulated provide evidence (see question mark icon). If this course is appropriate for articulation OR not appropriate for articulation, explain.**

This course is appropriate for articulation.

Explanation for Appropriate for articulation or Not appropriate for articulation statuses -- or website link **only** for already articulated courses (if there is no link below, the information is attached):

Course is similar to UH Manoa's EE 160 so this course will be articulated in the future.

**29. If the course modifications affect the articulation status of this course, explain. If the proposed changes do not affect the articulation status or if this is a new course, type N/A.**

N/A

**30. Date proposed (CANNOT BE MODIFIED).**

09/11/2014

**31. Which area requirements (including Foundations and Diversification requirements) for the Associate in Arts, A.A., degree apply to this course? Diversification, Foundations, or Health and Wellness options require a copy of the signed approval form (as an attachment).**

- None applies to this course.

**32. Which area requirements for the Associate in Applied Science, A.A.S., degree apply to this course?**

- None applies to this course.

**33. Which area requirements for the Associate in Science, A.S., degree apply to this course?**

- None applies to this course.

**34. What five-year review cycle is this course going through?**

2014/15

**35. The Google Doc format of the syllabus for this course can be found using the link provided.**

<https://docs.google.com/a/hawaii.edu/document/d/1beYkBDberBhKyHYtTqsgZGQAKsid5khSOPFwOm6ypfk/edit?usp=sharing>

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