PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT School of Electrical and Computer Engineering (EFD 34-10) EFFECTIVE SESSION Fall 2010

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- [ ] 1. New course with supporting documents
- [ ] 2. Add existing course offered at another campus
- [ ] 3. Expiration of a course
- [ ] 4. Change in course number
- [ ] 5. Change in course title
- [ ] 6. Change in course credit/type
- [ ] 7. Change in course attributes (department head signature only)
- [ ] 8. Change in instructional hours
- [ ] 9. Change in course description
- [ ] 10. Change in course prerequisites
- [ ] 11. Change in semesters offered (department head signature only)
- [ ] 12. Transfer from one department to another

PROPOSED:
Subject Abbreviation: ECE
Course Number: 36800
Long Title: Data Structures
Short Title: Data Structures

EXISTING:
Subject Abbreviation: ECE
Course Number: 36800
Long Title: Data Structures
Short Title: Data Structures

TERMS OFFERED:
Check All That Apply:
- [ ] Summer
- [ ] Fall
- [ ] Spring

CAMPUS(ES) INVOLVED:
- Calumet
- Cont Ed
- N. Central
- Ft. Wayne
- Tech Statewide
- Indianapolis
- W. Lafayette

Credit Type:
1. Fixed Credit: Cr. Hrs.
2. Variable Credit Ranges:
   Minimum Cr. Hrs:
   (Check One)
   To:
   Or:
   Maximum Cr. Hrs:
3. Equivalent Credit: Yes [ ] No [ ]

Course Attributes:
Check All That Apply
- 1. Pass/Not Pass Only
- 2. Satisfactory/Unsatisfactory Only
- 3. Repeatable
- 4. Credit by Examination
- 5. Special Fees
- 6. Registration Approval Type
   - Department [ ] Instructor [ ]
- 7. Variable Title
- 8. Honors
- 9. Full Time Privilege
- 10. Off Campus Experience

Schedule Type:
- Lecture
- Recitation
- Animation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Pract/Obsev

Minutes Per Mtg:
Meetings Per Week:
Weeks Offered:
% of Credit Allocated:

Course Description (Include Requisites/Restrictions):
Prerequisites: ECE 26400 Minimum Grade of C

Course Learning Outcomes:
See attachment.

Calumet Department Head Date
Calumet School Dean Date

Fort Wayne Department Head Date
Fort Wayne School Dean Date

Indianapolis Department Head Date
Indianapolis School Dean Date

North Central Department Head Date
North Central Chancellor Date

West Lafayette Department Head Date
West Lafayette College/School Dean Date

Office of the Registrar
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: School of Electrical and Computer Engineering (EFD 34-10) EFFECTIVE SESSION: Fall 2010

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- Change in course attributes (department head signature only)
- Change in instructional hours
- Change in course description
- Change in course requisites
- Change in semesters offered (department head signature only)
- Transfer from one department to another

PROPOSED:

Subject Abbreviation: ECE Course Number: 36800

Long Title: Data Structures Short Title: Data Structures

Abbreviated title will be entered by the Office of the Registrar if omitted. (20 CHARACTERS ONLY)

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<tr>
<th>CREDIT TYPE</th>
<th>COURSE ATTRIBUTES: Check All That Apply</th>
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<tbody>
<tr>
<td>1. Fixed Credit: Cr. Hrs.</td>
<td>1. Pass/Not Pass Only</td>
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<tr>
<td>2. Variable Credit Range: (Check One)</td>
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<tr>
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<td>3. Repeatable</td>
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<td>Maximum Cr. Hrs</td>
<td>Maximum Repeatable Credit:</td>
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<td>Equivalent Credit: Yes No</td>
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<tr>
<td>Pract/Observe</td>
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COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
Prerequisites: ECE 20400 Minimum Grade of C

*COURSE LEARNING OUTCOMES:
See attachment.

Calumet Department Head Date
Calumet School Dean Date

Fort Wayne Department Head Date
Fort Wayne School Dean Date

Indianapolis Department Head Date
Indianapolis School Dean Date

North Central Department Head Date
North Central Chancellor Date

West Lafayette Department Head Date
West Lafayette College Dean Date

OFFICE OF THE REGISTRAR
TO: The Faculty of the College of Engineering
FROM: The Faculty of the School of Electrical and Computer Engineering
RE: Change to Existing Undergraduate Course: ECE 36800, Data Structures, change in requisites.

The faculty of the School of Electrical and Computer Engineering has approved the following changes to an existing course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: ECE 36800 Data Structures
Sem. Fall, Spring; Cr. 3; Lecture 3.
Prerequisites: ECE 26400 and ECE 36400 [may be taken concurrently]
Restrictions: Must be enrolled in one of the following: School of Electrical &
Computer Engineering and School of Biomedical Engineering
Description: Provides insight into the use of data structures. Topics include stacks,
queues and lists, trees, graphs, sorting, searching, and hashing.

To: ECE 36800 Data Structures
Sem. Fall, Spring; Cr. 3; Lecture 3.
Prerequisites: ECE 26400 Minimum Grade of C
Restrictions: Must be enrolled in one of the following: School of Electrical &
Computer Engineering, School of Biomedical Engineering
Description: Provides insight into the use of data structures. Topics include stacks,
queues and lists, trees, graphs, sorting, searching, and hashing.

Reason: This course is part of the Core Curriculum for the BSCmpE degree. Subsets of Core
Curriculum courses serve as prerequisites for most upper division ECE electives. In
addition, a degree requirement for all ECE students is to achieve a GPA in all major-
area (ECE) courses of at least a 2.0. Therefore, in order to ensure that ECE students
are as well prepared as possible for upper division ECE courses, as well as to
facilitate their achievement of the minimum major-area GPA of 2.0, a minimum
grade requirement in the key ECE prerequisite course is being proposed.

[Signature]
on behalf of V. Balakrishnan, Interim Head
School of Electrical and Computer Engineering

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE ENGINEERING
CURRICULUM COMMITTEE
ECC Minutes #24
Date 4/20/10
Chairman ECC L. Cipra
Course Learning Outcomes:

i. an understanding of various basic data structures, including stacks, queues, and trees.
ii. an ability to analyze time complexity and space complexity of algorithms.
iii. an ability to apply appropriate sorting and searching algorithms for a given application.
iv. an ability to apply graph theoretic techniques, data structures and algorithms for problem solving.
v. an ability to design and implement appropriate data structures and algorithms for engineering applications.