**PURDUE UNIVERSITY**
REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE
(10000-49999 LEVEL)

**DEPARTMENT:** School of Electrical and Computer Engineering (EFD 35-10)
**EFFECTIVE SESSION:** Fall 2011 / Spring 2012

**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: 30662  
Long Title: Object-Oriented Programming in C++ and Java  
Short Title: Object Oriented Java

**EXISTING:**
Subject Abbreviation: ECE  
Course Number: 46200  
Long Title: Object-Oriented Programming in C++ and Java  
Short Title: Object Oriented Java

**TERMS OFFERED:**
Check All That Apply
- Summer
- Fall
- Spring

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

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**CREDIT TYPE:**
1. Fixed Credit: Cr/hrs.
2. Variable Credit Range:
   - Minimum Cr. Hrs: (Check One)
     - To
     - Or
     - No
   - Maximum Cr. Hrs: (Check One)
     - Yes
     - No
3. Equivalent Credit: Yes

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

**SCHEDULE TYPE:**
- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Pred/Observe

**Weeks Offered & % of Credit Allocated:**

**COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):**
Prerequisite: ECE 26400
Restrictions: Must be enrolled in the School of Electrical and Computer Engineering.

**COURSE LEARNING OUTCOMES:**
See attachment.

---

**Signature Line:**

Calumet Department Head:  
Date:  
Calumet School Dean:  
Date:

Ft. Wayne Department Head:  
Date:  
Ft. 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 Campus School Dean:  
Date:

**OFFICE OF THE REGISTRAR**

[Signature]

9/22/11
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: School of Electrical and Computer Engineering (ECE 35-10)
EFFECTIVE SESSION: Fall 2011

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

- New course with supporting materials
- Add existing course offered at another campus
- Creation of a course
- Change in course number
- Change in course title
- Change in course credit type
- Change in course attributes (department head signature only)
- Change in instructional hours
- Change in course description
- Change in course prerequisites
- Change in semesters offered (department head signature only)
- Transfer from one department to another
- Term Offered: Check All That Apply

Subject Abbreviation: ECE
Course Number: 30802
Course Title: Object-Oriented Programming in C++ and Java

<table>
<thead>
<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>6. Registration Approval Type</td>
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<td>Maximum Cr. Hrs.</td>
<td>7. Variable Title</td>
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<td>3. Equivalent Credit: Yes</td>
<td>8. Honors</td>
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<tr>
<td>No</td>
<td>9. Full Time Privilege</td>
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<tr>
<td>10. Off-Campus Experience</td>
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<thead>
<tr>
<th>CREDIT RECIPIENT</th>
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<tr>
<td>Lecture</td>
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<td>Recitation</td>
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<td>Presentation</td>
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<td>Laboratory</td>
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<td>Lab Project</td>
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<td>Clinical Experience</td>
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<td>Research</td>
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<td>Ind. Study</td>
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<tr>
<td>Practice/Shop</td>
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COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
Prerequisites: ECE 26400
Restrictions: Must be enrolled in the School of Electrical and Computer Engineering.

* COURSE LEARNING OUTCOMES:
See attachment.

<table>
<thead>
<tr>
<th>Course Departmental Head</th>
<th>Date</th>
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<tbody>
<tr>
<td>Pat Wayne Department Head</td>
<td>Date</td>
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<tr>
<td>Indianapolis Department Head</td>
<td>Date</td>
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<tr>
<td>North Central Department Head</td>
<td>Date</td>
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<tr>
<td>West Lafayette Department Head</td>
<td>Date</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course College Dean</th>
<th>Date</th>
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<tbody>
<tr>
<td>Pat Wayne College Dean</td>
<td>Date</td>
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<td>Indianapolis College Dean</td>
<td>Date</td>
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<tr>
<td>North Central College Dean</td>
<td>Date</td>
</tr>
<tr>
<td>West Lafayette College Dean</td>
<td>Date</td>
</tr>
</tbody>
</table>

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 46200, Object-Oriented Programming Using C++: Change in course number and 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 46200 Object-Oriented Programming Using C++ and Java
Sem. Fall; Cr. 3; Lecture 3.
Prerequisites: ECE 36800 [may be taken concurrently] and ECE 26400
Restrictions: Must be enrolled in one of the following: School of Electrical & Computer Engineering
Description: C++ and Java programming languages, including classes, inheritance, encapsulation, polymorphism, class derivation, abstract classes, interfaces, static class members, object construction and destruction, namespaces, exception handling, function overloading and overriding, function name overload resolution, container classes, and template classes.

To: ECE 30862 Object-Oriented Programming Using C++ and Java
Sem. Fall; Cr. 3; Lecture 3.
Prerequisites: ECE 26400
Restrictions: Must be enrolled in: School of Electrical & Computer Engineering
Description: C++ and Java programming languages, including classes, inheritance, encapsulation, polymorphism, class derivation, abstract classes, interfaces, static class members, object construction and destruction, namespaces, exception handling, function overloading and overriding, function name overload resolution, container classes, and template classes.

Reason: The Computer Engineering faculty in ECE has determined that ECE 26400 is sufficient as the only prerequisite for ECE 46200. This is supported by the performance of students for whom ECE 36800 has been waived as a requisite. The course number is being changed to better reflect the level of the course.

Jeffry L. Dean
on behalf of V. Balakrishnan, Head
School of Electrical and Computer Engineering

APPROVER FOR THE FACULTY OF THE SCHOOLS OF ENGINEERING BY THE ENGINEERING CURRICULUM COMMITTEE
ECC Minutes #19
Date 5/14/11
Chairman ECC R. Cipsa
Course Learning Outcomes:

1. an understanding of the concepts of inheritance and polymorphism.
2. an ability to overload operators in C++.
3. an understanding of the difference between function overloading and function overriding.
4. an ability to incorporate exception handling in object-oriented programs.
5. an ability to use template classes and the STL library in C++.
6. an ability to write object-oriented programs of moderate complexity in C++.
7. an ability to write object-oriented programs of moderate complexity in Java.
8. an ability to write programs with multiple threads and use synchronization among threads.
## Purdue University Request Form

### Request for Addition, Expiration, or Revision of an Undergraduate Course

**Department:** School of Electrical and Computer Engineering (ECE 35-10)  
**Effective Session:** Fall 2012  
**Spring 2012**

### 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. Expulsion 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 requirements
11. Change in semesters offered (department head signature only)
12. Transfer from one department to another

### PROPOSED:

- **Subject Abbreviation:** ECE
- **Course Number:** 30862
- **Long Title:** Object-Oriented Programming in C++ and Java
- **Short Title:** OOP Programming in C++ and Java
- **Abbreviated title will be entered by the Office of the Registrar if certified. (NO CHARACTERS ONLY)**

### EXISTING:

- **Subject Abbreviation:** ECE
- **Course Number:** 46200
- **Short Title:** Obj Orient Prog C++ Java

### TERMS OFFERED:
- **CAMPUS(ES) INVOLVED:**
  - Calumet
  - Ft. Wayne
  - Indianapolis
  - N. Central
  - Tech-Statewide
  - W. Lafayette
- **SUMMER**
- **FALL**
- **SPRING**

### CREDIT TYPE:

<table>
<thead>
<tr>
<th>1. Fixed Credit</th>
<th>2. Variable Credit Range:</th>
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<tbody>
<tr>
<td>Crt. Hrs.</td>
<td>Minimum Crt. Hrs. (Check One) To</td>
</tr>
<tr>
<td></td>
<td>Maximum Crt. Hrs.</td>
</tr>
<tr>
<td></td>
<td>Equivalent Credit: Yes No</td>
</tr>
</tbody>
</table>

### COURSE ATTRIBUTES:

- **1. Pass/Not Pass Only**
- **2. Satisfactory/Unsatisfactory Only**
- **3. Repeatable**
- **4. Maximum Repeatable Credit:**
- **5. Credit by Examination**
- **6. Sporadic Fees**
- **7. Variable Title**
- **8. Honors**
- **9. Full Time Privilege**
- **10. Off Campus Experience**
- **CROSS-LISTED COURSES**

### COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

- **Prerequisites:** ECE 26400
- **Restrictions:** Must be enrolled in the School of Electrical and Computer Engineering.

### *COURSE LEARNING OUTCOMES:

See attachment.

### Signature Blocks:

- **Calumet Department Head:** [Signature]  
  **Date:**
- **Calumet School Dean:** [Signature]  
  **Date:**
- **Ft. Wayne Department Head:** [Signature]  
  **Date:**
- **Ft. Wayne School Dean:** [Signature]  
  **Date:**
- **Indianapolis Department Head:** [Signature]  
  **Date:**
- **Indianapolis School Dean:** [Signature]  
  **Date:**
- **North Central Department Head:** [Signature]  
  **Date:**
- **North Central Chancellor:** [Signature]  
  **Date:**
- **West Lafayette Department Head:** [Signature]  
  **Date:**
- **West Lafayette College/School Dean:** [Signature]  
  **Date:**
- **West Lafayette Registrar:** [Signature]  
  **Date:**

**OFFICE OF THE REGISTRAR**
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXTRAVATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: School of Electrical and Computer Engineering (ECE 35-10)
EFFECTIVE SESSION: Fall 2011

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. Expulsion of a course
☐ 4. Change in course number
☐ 5. Change in course title
☐ 6. Change in course content
type

PROPOSED:

Subject Abbreviation: ECE
Course Number: 30820
Long Title: Object-Oriented Programming in C++ and Java
Short Title: CO Programming in C++ and Java
Terms Offered: Check All That Apply:
☐ Summer ☑ Fall ☑ Spring

CAMPUS(ES) INVOLVED:
- Indiana
- Lafayette

TERMS OFFERED:

Check All That Apply:
☐ 7. Change in course attributes (department head signature only)
☐ 8. Change in instructional hours
☐ 9. Change in course description
☐ 10. Change in course requirements
☐ 11. Change in semesters offered (department head signature only)
☐ 12. Transfer from one department to another

CREDIT TYPE

1. Fixed Credit: Cr. Hrs.
☐ 1. Pass/No Pass Only
☐ 2. Variable Credit Range:
☐ Minimum Cr. Hrs.
☐ Maximum Cr. Hrs.
☐ Equivalent Credit: Yes No

COURSE ATTRIBUTES: Check All That Apply

☐ 6. Registration Approval Type
☐ Instructor
☐ Department
☐ 7. Variable Title
☐ 8. Honors
☐ 9. Full Time Privilege
☐ 10. Off Campus Experience

Course Description (Include Requirements/Restrictions):
Prerequisites: ECE 29400
Restrictions: Must be enrolled in the School of Electrical and Computer Engineering.

Course Learning Outcomes:
See attachment.

COLUMBUS DEPARTMENT HEAD Date
FORT WAYNE DEPARTMENT HEAD Date
INDIANAPOLIS DEPARTMENT HEAD Date
NORTH AMERICAN DEPARTMENT HEAD Date
WEST LAFAYETTE DEPARTMENT HEAD Date

FORT WAYNE SCHOOL DEAN Date
INDIANAPOLIS SCHOOL DEAN Date
WEST LAFAYETTE SCHOOL DEAN Date

SANDRA WALKER 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 46200, Object-Oriented Programming Using C++: Change in course number and requisites.

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Restrictions: Must be enrolled in one of the following: School of Electrical & Computer Engineering
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To: ECE 30862 Object-Oriented Programming Using C++ and Java
Sem. Fall; Cr. 3; Lecture 3.
Prerequisites: ECE 26400
Restrictions: Must be enrolled in: School of Electrical & Computer Engineering
Description: C++ and Java programming languages, including classes, inheritance, encapsulation, polymorphism, class derivation, abstract classes, interfaces, static class members, object construction and destruction, namespaces, exception handling, function overloading and overriding, function name overload resolution, container classes, and template classes.

Reason: The Computer Engineering faculty in ECE has determined that ECE 26400 is sufficient as the only prerequisite for ECE 46200. This is supported by the performance of students for whom ECE 36800 has been waived as a requisite. The course number is being change to better reflect the level of the course.

Jeffrey Z. Deuser
on behalf of V. Balakrishnan, Head
School of Electrical and Computer Engineering

ECC Minutes #19
Date 5/14/10
Chairman ECC R. Cipra

APPROVED FOR THE FACULTY OF THE SCHOOLS OF ENGINEERING BY THE ENGINEERING CURRICULUM COMMITTEE
Course Learning Outcomes:

i. an understanding of the concepts of inheritance and polymorphism.
ii. an ability to overload operators in C++.
iii. an understanding of the difference between function overloading and function overriding.
iv. an ability to incorporate exception handling in object-oriented programs.
v. an ability to use template classes and the STL library in C++.
vi. an ability to write object-oriented programs of moderate complexity in C++.
vii. an ability to write object-oriented programs of moderate complexity in Java.
viii. an ability to write programs with multiple threads and use synchronization among threads.