0

PURDUE UNIVERSITY

REQUEST FOR ADDITION, EXPIRATION,

OR REVISION OF A COURSE

Print Form

EFD: 10-05

DEPARTMENT   ECE   EFFECTIVE SESSION   Fall 2006

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

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

PROPOSED:

Subject Abbreviation _____

Course Number _____

Long Title   Compilers and Translator Writing Systems

Short Title _____

Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)

EXISTING:

Subject Abbreviation   ECE

Course Number   573

TERMS OFFERED
Check All That Apply:

Summer [ ]   Spring [ ]   Fall [X]

CAMPUS(ES) INVOLVED

Calumet	Ft. Wayne [ ]
Indianapolis	N. Central [ ]
W.Lafayette [X]	Cont Ed [ ]
Tech Statewide	

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. _____
2. Variable Credit Range:
   Minimum Cr. Hrs _____
   (Check One) To [ ] Or [ ]
   Maximum Cr. Hrs _____
3. Equivalent Credit: Yes [ ]   No [ ]
4. Thesis Credit: Yes [ ]   No [ ]

COURSE ATTRIBUTES: Check all That Apply

1. Pass/Not Pass Only [ ]
2. Satisfactory/Unsatisfactory Only [ ]
3. Repeatable [ ]
   Maximum repeatable credit: _____
4. Credit by Examination [ ]
5. Designator Required [ ]
6. Special Fees [ ]

7. Registration Approval Type
   Department [X]   Instructor [ ]
8. Variable Title [ ]
9. Remedial [ ]
10. Honors [ ]
11. Full Time Privilege [ ]
12. Off Campus Experience [ ]

Instructional Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated	Delivery Method (Asyn. Or Syn)	Delivery Medium(Audio,Internet, Live,Text-Based, Video)
Lecture						
Recitation						
Presentation						
Laboratory						
Lab Prep						
Studio						
Distance						
Clinic						
Experiential						
Research						
Ind. Study						
Pract/Observ						

Cross-Listed Courses

_____

_____

_____

COURSE DESCRIPTION (INCLUDE REQUISITES):

Calumet Undergrad Curriculum Committee	Date	Calumet Department Head	Date	Calumet School Dean	Date
Fort Wayne Department Head	Date	Fort Wayne School Dean	Date	Fort Wayne Chancellor	Date
Indianapolis Department Head	Date	Indianapolis School Dean	Date	Undergrad Curriculum Committee	Date
North Central Department Head *[signature]*	Date 5/12/06	North Central Chancellor *[signature]*	Date 6/30/06	Date Approved by Graduate Council *Marilyn D. Guist* 8/9/06	
West Lafayette Department Head	Date	West Lafayette College/School Dean	Date	Graduate Council Secretary *[signature]*	Date
Graduate Council Area Committee Chair	Date	Graduate Dean	Date	West Lafayette Registrar	Date 8/14/06

OFFICE OF THE REGISTRAR

March 3, 2006

TO: The Faculty of the College of Engineering

FROM: The Faculty of the School of Electrical and Computer Engineering

RE: Title Changes to Graduate-Level Course of ECE 573

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

From: ECE 573 Compilers And Translator Writing Systems

To: ECE 573 Optimizing Compilers

ECE 573 Optimizing Compilers
Class 3, Lab 0, Credit 3
Sem. 1
Prerequisites: none

Course Description: This course presents the concepts and techniques to design and implement an optimizing compiler. The course includes topics in the use of tools for parsing and lexical analysis, semantic routines, program parallelization and scalar optimizations.

Reason: The title of this course was changed to better reflect the evolving course content.

Course History: The course has been and continues to be offered every fall.

Mark J.T. Smith

Professor and Head

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE COMMITTEE ON
FACULTY RELATIONS

CFR Minutes _____ 13 _____

Date _____ 1/18/07 _____

Chairman CFR _____

Text: Fischer and LeBlanc, Crafting a Compiler with C, Benjamin/Cummings, 1991, ISBN 0-8053-2166-7. Course notes and research papers will be used. Background texts: the instructor will supply papers.

Course Outcomes:

A student who successfully fulfills the course requirements will have demonstrated an ability to understand and use

i. An understanding of how to use parser generator tools and lexical analysis tools to parse a program source;

ii. An understanding of the terminology and techniques of semantic processing, code generation, and optimization;

iii. Third outcome an ability to design and implement a compiler, translator or interpreter for a small language based on their knowledge of (i) and (ii).

Assessment Methods:

There will be at least one midterm and a final exam. 50% of the final grade will reflect the performance on a class project that each student will propose and conduct.

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF A GRADUATE COURSE
(500-600 LEVEL)

EFD 10-05

DEPARTMENT [ECE]   EFFECTIVE SESSION [F07]

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

☐ 1. New course with supporting documents (complete proposal form)	☐ 7. Change in course attributes
☐ 2. Add existing course offered at another campus	☐ 8. Change in instructional hours
☐ 3. Expiration of a course	☐ 9. Change in course description
☐ 4. Change in course number	☐ 10. Change in course requisites
☑ 5. Change in course title	☐ 11. Change in semesters offered
☐ 6. Change in course credit/type	☐ 12. Transfer from one department to another

PROPOSED:

Subject Abbreviation [ ]

Course Number [ ]

Long Title [Optimizing Compilers]

Short Title [ ]

Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)

EXISTING:

Subject Abbreviation [ECE]

Course Number [573]

TERMS OFFERED
Check All That Apply:
☐ Summer   ☑ Fall   ☐ Spring

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

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. [ ]
2. Variable Credit Range:
   Minimum Cr. Hrs [ ]
   (Check One)   To ☐   Or ☐
   Maximum Cr. Hrs [ ]
3. Equivalent Credit: Yes ☐   No ☐
4. Thesis Credit: Yes ☐   No ☐

COURSE ATTRIBUTES: Check All That Apply

1. Pass/Not Pass Only	☐	7. Registration Approval Type	
2. Satisfactory/Unsatisfactory Only	☐	Department ☑ Instructor ☐	
3. Repeatable	☐	8. Variable Title	☐
Maximum Repeatable Credit:	☐	9. Remedial	☐
4. Credit by Examination	☐	10. Honors	☐
5. Designator Required	☐	11. Full Time Privilege	☐
6. Special Fees	☐	12. Off Campus Experience	☐

Instructional Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated	Delivery Method (Asyn. Or Syn.)	Delivery Medium (Audio, Internet, Live, Text-Based, Video)	Cross-Listed Courses
Lecture							
Recitation							
Presentation							
Laboratory							
Lab Prep							
Studio							
Distance							
Clinic							
Experiential							
Research							
Ind. Study							
Pract/Observ							

COURSE DESCRIPTION (INCLUDE REQUISITES):

From: ECE 573 Compilers And Translator Writing Systems

To: ECE 573 Optimizing Compilers

Calumet Department Head _____ Date	Calumet School Dean _____ Date	Calumet Undergrad Curriculm Committee _____ Date
Fort Wayne Department Head _____ Date	Fort Wayne School Dean _____ Date	Fort Wayne Chancellor *Michael Ottouski* 3/9/07 Date
Indianapolis Department Head _____ Date	Indianapolis School Dean _____ Date	Undergrad Curriculm Committee _____ Date
North Central Department Head *Wali* _____ Date	North Central Chancellor *[signature]* 3/7/07 Date	Date Approved by Graduate Council _____
West Lafayette Department Head _____ Date	West Lafayette College/School Dean *[signature]* Date	Graduate Council Secretary _____ Date
Graduate Area Committee Convener _____ Date	Graduate Dean _____ Date	West Lafayette Registrar _____ Date

OFFICE OF THE REGISTRAR

March 3, 2006

TO: The Faculty of the College of Engineering

FROM: The Faculty of the School of Electrical and Computer Engineering

RE: Title Changes to Graduate-Level Course of ECE 573

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

From: ECE 573 Compilers And Translator Writing Systems

To: ECE 573 Optimizing Compilers

ECE 573 Optimizing Compilers
Class 3, Lab 0, Credit 3
Sem. 1
Prerequisites: none

Course Description: This course presents the concepts and techniques to design and implement an optimizing compiler. The course includes topics in the use of tools for parsing and lexical analysis, semantic routines, program parallelization and scalar optimizations.

Reason: The title of this course was changed to better reflect the evolving course content.

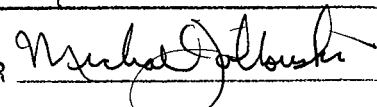**Course History:** The course has been and continues to be offered every fall.

Mark J.T. Smith

Professor and Head

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE COMMITTEE ON
- FACULTY RELATIONS

CFR Minutes _____ 13 _____

Date _____ 1/18/07 _____

Chairman CFR _____

Text: Fischer and LeBlanc, Crafting a Compiler with C, Benjamin/Cummings, 1991, ISBN 0-8053-2166-7. Course notes and research papers will be used. Background texts: the instructor will supply papers.

Course Outcomes:

A student who successfully fulfills the course requirements will have demonstrated an ability to understand and use

i. An understanding of how to use parser generator tools and lexical analysis tools to parse a program source;

ii. An understanding of the terminology and techniques of semantic processing, code generation, and optimization;

iii. Third outcome an ability to design and implement a compiler, translator or interpreter for a small language based on their knowledge of (i) and (ii).

Assessment Methods:

There will be at least one midterm and a final exam. 50% of the final grade will reflect the performance on a class project that each student will propose and conduct.