

Curriculum Change Form
(Present only one proposed curriculum change per form)
(Complete only the section(s) applicable.)

Part I

<input type="checkbox"/> (Check one) New Course (Parts II, IV)	Department Name	Computer Science																					
<input type="checkbox"/> Course Revision (Parts II, IV)	College	College of Arts and Sciences																					
<input type="checkbox"/> Course Dropped (Part II)	*Course Prefix & Number																						
<input type="checkbox"/> New Program (Part III)	*Course Title (30 characters)																						
<input checked="" type="checkbox"/> Program Revision (Part III)	*Program Title	M.S. in Applied Computing																					
<input type="checkbox"/> Program Suspended (Part III)	*Provide only the information relevant to the proposal.																						
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Proposal Approved by:</td> <td style="width: 30%; text-align: center;"><u>Date</u></td> <td style="width: 40%;"></td> </tr> <tr> <td>Departmental Committee</td> <td style="text-align: center;">8/25/03</td> <td>Graduate Council* <u>Date</u> Pending 02-11-04</td> </tr> <tr> <td>College Curriculum Committee</td> <td style="text-align: center;">02/02/04</td> <td>Council on Academic Affairs</td> </tr> <tr> <td>General Education Committee*</td> <td style="text-align: center;">NA</td> <td>Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/> 02-19-04</td> </tr> <tr> <td>Teacher Education Committee*</td> <td style="text-align: center;">NA</td> <td>Faculty Senate**</td> </tr> <tr> <td></td> <td></td> <td>Board of Regents**</td> </tr> <tr> <td></td> <td></td> <td>Council on Postsecondary Edu.*** NA</td> </tr> </table>			Proposal Approved by:	<u>Date</u>		Departmental Committee	8/25/03	Graduate Council* <u>Date</u> Pending 02-11-04	College Curriculum Committee	02/02/04	Council on Academic Affairs	General Education Committee*	NA	Approved <input checked="" type="checkbox"/> Disapproved <input type="checkbox"/> 02-19-04	Teacher Education Committee*	NA	Faculty Senate**			Board of Regents**			Council on Postsecondary Edu.*** NA
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<p>*If Applicable (Type NA if not applicable.) **Approval needed for new, revised, or suspended programs ***Approval/Posting needed for new degree program or certificate program</p>																							

Completion of A, B, and C is required: (Please be specific, but concise.)

- A. 1. Specific action requested:** (Example: To increase the number of credit hours for ABC 100 from 1 to 2.)
Add an option in Bioinformatics to the M.S. in Applied Computing degree (The option would be cross-listed with the M.S. in Biology)
- A. 2. Effective date:** (Example: Fall 2001)
Fall 2004
- A. 3. Effective date of suspended programs for currently enrolled students:** (if applicable)

B. The justification for this action:

The field of Bioinformatics is an emerging area of study and research that crosses the disciplines of both Biology and Computer Science. ECU has an opportunity to move to the fore in this area with the cooperation of the Department of Computer Engineering and Computer Science at the University of Louisville. M.S. students at ECU will spend the first 26 hours of their studies at ECU learning the basic biology and computer science disciplines that will be required of someone entering the field of Bioinformatics. The last semester of their studies would take place at the University of Louisville. U of L has agreed to accept our students as visiting students for the last 12 hours of their M.S. program. While at the University of Louisville, students will have the opportunity to gain real-world experience in Bioinformatics by working on research projects at U of L and taking a formal class in Bioinformatics (CECS 694). U of L has recently added Bioinformatics as a specialty area in their Ph.D. program and is in need of masters-level students to aid both faculty and Ph.D. students on research projects. The institution of a M.S. option in Bioinformatics at ECU allows our students to gain the basic background needed to pursue either employment or further graduate studies following graduation.

C. The projected cost (or savings) of this proposal is as follows:

Personnel Impact: None

Operating Expenses Impact: None

Equipment/Physical Facility Needs: None

Library Resources: None

Part III. Recording Data for New, Revised, or Suspended Program

1. For a new program, provide the catalog description as being proposed.
2. For a revised program, provide (a) the current program requirements and (b) the revised program, reflecting the exact changes being proposed.
3. For a suspended program, provide the current program requirements as shown in catalog. List any options and/or minors affected by the program's suspension.

Current Program Requirements as Shown in Catalog

Degree Requirements

Core Requirements..... 12 hours
CSC 730, 735, 745, 831.

Option in Software Engineering..... 18 hours
CSC 746, 812, 834, 833, 835, 860.

Electives..... 6 hours
Total Curriculum Requirements36 hours

Option in Business Computing 18 hours
CSC 834, 860, ACS 850, CIS 850, 860, INT 850.

Electives..... 6 hours
Total Curriculum Requirements36 hours

Option in Industrial Computing..... 21 hours
CSC 812, 834, 860, INT 730, 801, 804, 805.

Electives..... 3 hours
Total Curriculum Requirements36 hours

ELECTIVES

Select 6 hours of electives from the following. CIS 850, 860, 870, CSC 745, 746, 750, 833, 835, 842, 890, 895, ECO 854, INT 706, 730, 801, 804, 805, MAT 755, 706, 806, 871, 872, STA 700, 720, 721, 775, 825, TEC 830, 867. Credit in a student's declared option does not apply toward the elective requirements. The total number of hours of option and elective course work in the College of Business and Technology cannot exceed 15.

New or Revised* Program

(*Use ~~strikeout~~ for deletions and underlines for additions.)

Degree Requirements

Core Requirements 12 hours
CSC 730, 735, 745, 831.

Option in Software Engineering 18 hours
CSC 746, 812, 834, 833, 835, 860.

Electives 6 hours

Total Curriculum Requirements..... 36 hours

Option in Business Computing..... 18 hours
CSC 834, 860, ACS 850, CIS 850, 860, INT 850.

Electives 6 hours

Total Curriculum Requirements..... 36 hours

Option in Industrial Computing 21 hours
CSC 812, 834, 860, INT 730, 801, 804, 805.

Electives 3 hours

Total Curriculum Requirements..... 36 hours

Option in Bioinformatics* 22 hours

BIO 710 or STA 700, BIO 711, 801, 890, CECS 660

(Introduction to Bioinformatics at U of L), plus nine (9) credit hours at 800 level for research at U of L.

Electives (must be at 800 level) 3 hours

Total Curriculum Requirements..... 37 hours

*Courses equivalent to BIO 121, 315, 348, CSC 190, 191, 195 may be required as prerequisites

ELECTIVES

Select 6 hours of electives from the following. CIS 850, 860, 870, CSC 740, 745, 746, 750, 812, 833, 835, 842, 860, 890, 895, ECO 854, INT 706, 730, 801, 804, 805, MAT 755, 706, 806, 871, 872, STA 700, 720, 721, 775, 825, TEC 830, 867. Credit in a student's declared option does not apply toward the elective requirements. The total number of hours of option and elective course work in the College of Business and Technology cannot exceed 15.