

**COPY**

# NEW PROGRAMS, MAJOR PROGRAM REVISIONS, AND PROGRAM NAME CHANGES PROCESS C

**\*DEADLINES:** Deadline dates for 2001/2002 submissions: Regular proposals: October 19, 2001 to be implemented in Fall 2002; Short-Term proposals: December 7, 2001 to be implemented in Fall, 2002; Regular proposals February 15, 2002 to be implemented in Spring, 2003; March 22, 2002 for short-term courses to be implemented in Spring 2003.

**PROPOSAL TITLE:** Changing the Electives in the Computer Science Minor

**SPONSOR(S):** Jennifer Kay

**DEPARTMENT:** Computer Science

**COLLEGE:**  
 IF LAS CHECK ONE:  History/Humanities  Math/Sciences  Social/Behavioral Sciences

**Check One:**  Undergraduate  Graduate

The attached *NEW PROGRAM/MAJOR PROGRAM REVISION/PROGRAM NAME CHANGE* proposal is best described by the item(s) checked.

New degree program

New Certificate of Graduate Study Program

New major

New minor

New concentration, specialization, or track

Major changes to degree requirements, major, minor, or certificate program.

Changes to name of college, school, department or degree

Quasi Curricular

**RECEIVED BY:**  
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**DEPARTMENT**  
 (Signature indicates approval)

[Signature] Dept. Curriculum Chair / Date 2/15/02

[Signature] Dept. Chairperson / Date 2/15/02

**ACADEMIC DEAN (& Graduate Dean, for New Graduate Programs Only)**

Approved  Not Approved \_\_\_\_\_ Comments:

Academic Dean's Signature/Date Joy Hays 2/22/02

Graduate Dean's Signature/Date \_\_\_\_\_

**COLLEGE CURRICULUM COMMITTEE**

Approved  Not Approved \_\_\_\_\_  
Comments:

Signature of College Chair/Date: Hui Nguyen (LR)

**UNIVERSITY CURRICULUM COMMITTEE**

Date of Open Hearing (if necessary) 5/14/02 Approved  Not Approved \_\_\_\_\_  
Comments:

Curriculum Chair Signature/Date Jamette M. Reeves 6/24/02

Date voted upon at Senate (if necessary) 5/15/02 Approved \_\_\_\_\_ Not Approved \_\_\_\_\_

**EXECUTIVE VICE PRESIDENT/PROVOST**

Approved  Not Approved \_\_\_\_\_ If no, reasons are as follows:

Student Credit Hours \_\_\_\_\_ Faculty Load Hours \_\_\_\_\_ Equalized Credit Hours \_\_\_\_\_

Official Copy & Approval Sheet Filed (Date): \_\_\_\_\_ Executive VP/Provost  
Signature/Date 11/6/02 Helen Jones-Jac

**REGISTRAR**

Date Approved Course Description Received \_\_\_\_\_ Hegis Taxonomy & Course Number Assigned \_\_\_\_\_

Registrar Signature/Date Edwin C. Engel 11/8/02

**NOTIFICATION FORWARD**

Senate Curriculum Committee Chairperson  Academic Dean(s) TM 11-13-02  
 Department Chairpersons  Registrar C.H.P.  
Inst. Rep. Sponsor(s)

**ROWAN UNIVERSITY**  
**Department of Computer Science**  
**Major Curricular Change**  
**Changing the Electives in the Computer Science Minor**

**Summary:**

This proposal would enable a student who is pursuing a Minor in Computer Science to have more flexibility in their choice of electives. It expands the current list of electives to include most courses that are classified as a restricted elective for our majors.

Notes:

- The changes listed on the next page do not impact the Required courses in the minor
- In the details of the change on the next page, the courses eliminated from the explicit list are part of the Restricted Electives bank for Computer Science Majors.

**Thus, no course that is currently a part of the minor has been eliminated.**

## 1. Details:

### a. Change Requested

#### CHANGE THE ELECTIVE COURSES FROM:

##### ELECTIVE COURSES (TWO COURSES FROM THE FOLLOWING)

0704.315 Programming Languages [0706.205 & 0704.222]  
0706.310 Principles of Digital Computers [0706.205]  
0704.390 Operating Systems [0704.222 & 0706.205]  
0707.360 Computer Graphics [1701.210 & 0704.315]  
0706.412 Advanced Computer Architecture [0706.310]  
0707.422 Theory of Computing [0704.222 & 1701.131]  
1701.332 Numerical Analysis [0701.102, 1701.210, & 1701.131]  
0707.210 Foundations of Computer Science [1701.122 & 1703.150;  
0704.222 is co-requisite]  
0707.340 Design and Analysis of Algorithms [0704.222 & 0707.210]  
0707.450 Artificial Intelligence [1703.150, 0704.222, & 0707.210]  
0706.410 Data Communications and Networking [0706.310 & 1702.360]  
0707.321 Principles of Software Engineering [0704.222 or Digital II,  
1506.202 & 1701.131]  
0704.380 Object Oriented Design [0704.222 & 0701.205]  
0707.322 Software Engineering Practicum [0707.321 & 0701.205]  
0704.392 System Programming and Operating System Internals [0704.390  
& 0701.205]

#### TO:

##### ELECTIVE COURSES (TWO COURSES FROM THE FOLLOWING)

0704.315 Programming Languages [0706.205 & 0704.222]  
0706.310 Principles of Digital Computers [0706.205]  
0704.390 Operating Systems [0704.222 & 0706.205]  
1701.332 Numerical Analysis [0701.102, 1701.210, & 1701.131]  
0707.210 Foundations of Computer Science [1701.122 & 1703.150;  
0704.222 is co-requisite]  
0707.340 Design and Analysis of Algorithms [0704.222 & 0707.210]  
0707.321 Principles of Software Engineering [0704.222 or Digital II,  
1506.202 & 1701.131]

OR

Any course (other than 0799.300 Computer Field Experience) offered by the Computer Science Department that satisfies the Restricted Electives requirements for the Major in Computer Science.

### b. Sponsors: Jennifer Kay and the Computer Science Department

## **2. Rationale**

### **a. Statements of “need” for such a change**

Certain students pursuing a Minor in Computer Science are interested in very advanced topics. Courses that are advanced electives for those students majoring in Computer Science should also fulfil the elective requirements for those students minoring in Computer Science.

### **b. Statements of curricular effect.**

There is little impact on the curriculum. Many of these courses were already listed in the elective bank for the minor. The demand for those that were not is not expected to be large since most of them have advanced prerequisites that make them less desirable for the student pursuing a minor.

## **3. Results of Consultation**

a. The Department of Mathematics and the Electrical & Computing Engineering Program were consulted about this change.



Mathematics Department

# MEMO

**TO:** Jennifer Kay  
Computer Science Department

**FROM:** Ron Czocho, Chair  
Mathematics Dept

**DATE:** February 15, 2002

**RE:** Consultation on proposed change to CS minor

Thank you for the opportunity to review the minor change you have proposed in the Computer Science minor. I have no problems with the proposed change.

As long as Numerical Analysis is still part of the minor I am ok with the change.

On another matter pertaining to the minor, I would suggest that the requirement for minors to take Discrete Mathematics be reconsidered. There should be some provision that this requirement may be waived by the CS advisor. It seems to me that students from Electrical Engineering who take Discrete Mathematics as juniors should be able to replace the requirement with engineering courses.

X-Mailer: Novell GroupWise Internet Agent 5.5.2.1  
Date: Thu, 14 Feb 2002 18:12:37 -0500  
From: "John L. Schmalzel" <schmalzel@rowan.edu>  
To: <kay@elvis.rowan.edu>  
Cc: "Linda M. Head" <head@groupwise.rowan.edu>,  
"Peter Mark Jansson" <jansson@groupwise.rowan.edu>,  
"Robert R. Krchnavek" <krchnavek@groupwise.rowan.edu>,  
"Robi Polikar" <polikar@groupwise.rowan.edu>,  
"Ravi Prakas Ramachandran" <ravi@groupwise.rowan.edu>,  
"Shreekanth A. Mandayam" <Shreek@groupwise.rowan.edu>  
Subject: Re: Consultation Request  
X-Virus-Scanned: by AMaViS perl-10  
X-MIME-Autoconverted: from quoted-printable to 8bit by elvis.rowan.edu id SAA2616526

Jennifer,

I took a look at your proposal... Looks good to me. Let me circulate it just a bit to see what Linda, et. al. think. I'll get you a response FAST to meet your deadline (which I assume is coming right up).

Thanks!  
jls

>>> Jennifer Kay <kay@elvis.rowan.edu> 02/14/02 02:29PM >>>  
John,

I was wondering if you could write me a consultation for the following change to our minor program:

[http://elvis.rowan.edu/~kay/course\\_props/changetominor.pdf](http://elvis.rowan.edu/~kay/course_props/changetominor.pdf)

It's basically just an expansion of what electives are available for students who do a minor. But since a while ago we agreed to consult each other on everything, I figured this was worth doing. A quick email note would be great if you think it's ok.

Thanks,

-- Jennie

----  
Jennifer Kay  
Rowan University  
Computer Science Department

kay@elvis.rowan.edu  
<http://www.rowan.edu/~kay>

[ From: "Head, Linda M." <head@rowan.edu>  
To: "John L. Schmalzel" <schmalzel@rowan.edu>, kay@elvis.rowan.edu  
Cc: "Linda M. Head" <head@groupwise.rowan.edu>,  
Peter Mark Jansson  
<jansson@groupwise.rowan.edu>,  
"Robert R. Krchnavek"  
<krchnavek@groupwise.rowan.edu>,  
Robi Polikar  
<polikar@groupwise.rowan.edu>,  
Ravi Prakas Ramachandran  
<ravi@groupwise.rowan.edu>,  
"Shreekanth A. Mandayam"  
<Shreek@groupwise.rowan.edu>  
Subject: RE: Consultation Request  
Date: Fri, 15 Feb 2002 09:20:59 -0500  
X-Mailer: Internet Mail Service (5.5.2653.19)  
X-Virus-Scanned: by AMaViS perl-10

[ Actually appears to offer possible benefit to our students. -linda

-----Original Message-----

From: John L. Schmalzel [mailto:schmalzel@rowan.edu]  
Sent: Thursday, February 14, 2002 6:13 PM  
To: kay@elvis.rowan.edu  
Cc: Linda M. Head; Peter Mark Jansson; Robert R. Krchnavek; Robi Polikar; Ravi Prakas Ramachandran; Shreekanth A. Mandayam  
Subject: Re: Consultation Request

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Jennifer Kay  
Rowan University  
Computer Science Department

[kay@elvis.rowan.edu](mailto:kay@elvis.rowan.edu)  
<http://www.rowan.edu/~kay>

\* 01-37-11 /

Faison, Christy

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From: Jennifer Kay  
Sent: Thursday, November 14, 2002 11:22 PM  
To: czochor@rowan.edu  
Cc: lewi8025@rowan.edu; nlt@elvis.rowan.edu; stephen J. Hartley  
Subject: Discrete Math & Engineers

MEMO

From: Jennifer Kay, Computer Science Department  
To: Ron Czochor, Mathematics Department  
Re: Consultation on change to computer science minor

Thanks for your consultation about the minor in computer science. Your suggestion to waive the Discrete requirement for Electrical Engineers minoring in computer science is an interesting one.

We have contacted the Electrical Engineering program to determine which of their courses cover material in the Discrete syllabus. If it seems that the majority of the syllabus is covered by other courses in their curriculum, our committee will consider creating a mechanism to wave the Discrete requirement for ECE majors.

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Jennifer Kay  
Associate Professor  
Rowan University  
Computer Science Department  
<http://www.rowan.edu/~kay/>