

Status: PENDING

PROGRAM REQUEST
Computer & Information Science Minor -
CPTRINF-MN

Last Updated: McCaul Jr,Edward Baldwin
06/15/2011

Fiscal Unit/Academic Org	Computer Science & Engr - D1435
Administering College/Academic Group	Arts And Sciences
Co-administering College/Academic Group	Engineering
Semester Conversion Designation	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
Current Program/Plan Name	Computer & Information Science Minor
Proposed Program/Plan Name	Computer & Information Science Minor - CPTRINF-MN
Program/Plan Code Abbreviation	CPTRINF-MN
Current Degree Title	

Credit Hour Explanation

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		25	16.7	13	3.7
Required credit hours offered by the unit	Minimum	22	14.7	10	4.7
	Maximum	25	16.7	14	2.7
Required credit hours offered outside of the unit	Minimum	0	0.0	0	0.0
	Maximum	3	2.0	3	1.0
Required prerequisite credit hours not included above	Minimum	0	0.0	3	3.0
	Maximum	0	0.0	3	3.0

Explain any change in credit hours if the difference is more than 4 semester credit hours between the values listed in columns B and C for any row in the above table

The changes are primarily because the first programming course under semesters will be at the 1000-level and hence counted as a "pre-requisite" whereas, under quarters, it is at the 200-level and hence counted as part of the minor. When this is taken into account, the changes are minimal.

Program Learning Goals

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

Program Learning Goals • Currently not required for minor programs.

Assessment

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? No

Program Specializations/Sub-Plans

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

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Pre-Major

Does this Program have a Pre-Major? No

Attachments

- CIS minor cover letter.doc: NMS Division of Arts and Sciences cover letter
(Letter from the College to OAA. Owner: Andereck, Claude David)
- cisMinorProposalApril2011.pdf: Complete proposal
(Program Proposal. Owner: Soundarajan, Neelam)
- NMS Submission Memo CIS.pdf: Arts and Sciences submission letter
(Letter from the College to OAA. Owner: Andereck, Claude David)

Comments

- The attached file is the *complete* CIS Minor proposal. *(by Soundarajan, Neelam on 12/22/2010 01:54 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Soundarajan, Neelam	12/22/2010 01:55 PM	Submitted for Approval
Revision Requested	McCaul Jr, Edward Baldwin	03/25/2011 03:12 PM	Unit Approval
Submitted	Soundarajan, Neelam	03/25/2011 03:28 PM	Submitted for Approval
Approved	Agrawal, Gagan	03/25/2011 03:38 PM	Unit Approval
Revision Requested	Andereck, Claude David	03/29/2011 01:30 PM	College Approval
Submitted	Soundarajan, Neelam	05/14/2011 03:55 PM	Submitted for Approval
Revision Requested	Andereck, Claude David	05/27/2011 02:14 PM	Ad-Hoc Approval
Submitted	Soundarajan, Neelam	06/05/2011 04:00 PM	Submitted for Approval
Revision Requested	McCaul Jr, Edward Baldwin	06/06/2011 09:24 AM	Unit Approval
Submitted	Soundarajan, Neelam	06/06/2011 12:31 PM	Submitted for Approval
Approved	Andereck, Claude David	06/15/2011 12:21 PM	Ad-Hoc Approval
Approved	McCaul Jr, Edward Baldwin	06/15/2011 12:29 PM	Unit Approval
Approved	McCaul Jr, Edward Baldwin	06/15/2011 12:29 PM	College Approval
Pending Approval	Soave, Melissa A Cameron, Erin Marie	06/15/2011 12:29 PM	CAA Approval

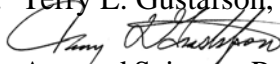


4120 Smith Laboratory
174 W. 18th Avenue
Columbus, OH 43210

Phone (614) 292-6736
Fax (614) 292-5678

artsandsciences.osu.edu

June 15, 2011

To: W. Randy Smith, Vice Provost, Office of Academic Affairs
 From: Terry L. Gustafson, Special Assistant to the Executive Dean for Semester Conversion

 Re: Arts and Sciences Program Proposals from the Natural and Mathematical Sciences Division

Arts and Sciences is pleased to submit the following programs from the Natural and Mathematical Sciences Division to the Office of Academic Affairs for conversion from quarters to semesters. The programs have been approved by the faculty members and chair of the originating unit, and reviewed and approved by the divisional advisory panel, a subcommittee of the ASC Committee on Curriculum and Instruction (CCI), and the full CCI. The vote for approval of all programs at the full CCI was unanimous.

Program Name	Academic Plan Code	Conversion Designation	CCI Approval	Last Revision
Computer & Information Science BS	CPTRINF-BS	Re-envisioned	5/20/2011	Prior to 2006
Computer & Information Science BA	CPTRINF-BA	Re-envisioned	5/20/2011	Prior to 2006
Computer & Information Science Minor	CPRTINF-MN	Converted	5/27/2011	Prior to 2006

Arts and Sciences General Education (GE) Program: The GE program for untagged B.A. and B.S. degrees in Arts and Sciences was approved by the Council on Academic Affairs on May 26, 2010, after receiving approval from the Arts and Sciences Faculty Senate. All the programs presented here follow the approved GE program.

College of Arts and Sciences Transition Policy: The College of Arts and Sciences is committed to the principles outlined in the university's Pledge to Undergraduate Students. Each unit has a plan on how best to assist its majors and minors through the transition. And the Arts and Sciences Academic Advising Services will advise students on how to transition their GE program. Dual advising is the existing process used in Arts and Sciences and will continue under semesters.



College of Arts and Sciences

186 University Hall
230 North Oval Mall
Columbus, OH 43210

Phone (614) 292-8908
Fax (614) 247-7498

May 16, 2011

Larry Krissek
Chair, Arts and Sciences CCI

Dear Larry:

It is a pleasure to forward to you the proposal for the undergraduate minor in Computer and Information Science under semesters. This is a program offered by the Department of Computer Science and Engineering through the College of Arts and Sciences. The minor has been modified from its present quarter version mainly by the movement of a fundamental course into prerequisite status as it is now at the 1000-level.

Beyond my own review of the documents, the proposal has been discussed by colleagues from other NMS units at a meeting on March 29, 2011. Feedback from these discussions has now been incorporated in the proposal.

If you have any questions, I would be happy to address them.

Sincerely,

A handwritten signature in black ink, appearing to read "David Andereck".

David Andereck
Professor of Physics
Associate Dean of Natural and Mathematical Sciences, College of Arts and Sciences

To: David Andereck, Associate Dean, College of Arts and Sciences

From: Xiaodong Zhang, CSE Department Chair

Date: 30 April 2011

Re: Semester Proposals for *BS-CIS, BA-CIS, and CIS Minor Programs*

The faculty of Computer Science and Engineering have worked diligently since early Au09 to prepare the semester proposals for the BS-CIS, BA-CIS, and CIS Minor programs. The CSE Semester Task Force comprising about fifteen CSE faculty members, academic advising staff, and undergraduate and graduate students, began meeting weekly at the start of Au09 to plan the semester conversion. Data collected during these deliberations included historical feedback from BS-CSE graduates (compiled as part of accreditation-based assessment processes of that program over the past 10+ years), input from the CSE Department Industrial Advisory Committee, a survey of all CSE faculty on various issues related to the transition, the Undergraduate Forum (an annual open meeting with undergraduate students), and comparisons with about a dozen computer science and engineering, computer science, and similarly named programs at major peer institutions. I should note that the data based on the BS-CSE program also provides information about the BS-CIS, BA-CIS, and the Minor programs because of the many CSE courses that are common to these programs.

One primary concern in designing the BS-CIS program was to keep it similar, in terms of the computing technical content, to the BS-CSE degree. This gives students a clear choice: BS-CSE if you want the non-computing focus to lie within engineering *vs.* BS-CIS if you want the non-computing focus of the program to lie in the liberal arts. In designing the BA-CIS program, the main goal was to enable the student to get a solid grounding in computing fundamentals and specific elective areas while also pursuing a related field. This gives students a clear choice between our two degree programs in ASC: BS-CIS if you want a stronger computing technical focus *vs.* BA-CIS if you want a stronger focus on how to apply computing in a sophisticated way to a specific related field. The CIS Minor is intended for a student whose primary interest is not in computing but one who still wants to acquire a reasonable grasp of technical computing fundamentals. These considerations have been important during nearly the entire history of our department and have been suitably addressed in our semester proposals.

The faculty have voted to approve the attached proposals as our semester plans for the *BS-CIS, BA-CIS, and CIS-Minor programs*, and I also recommend approval. The vote of all CSE faculty members on the proposals was 39 in favor, 0 opposed, 0 abstentions.

We would like to thank you and the ASC Curriculum Committee for feedback on earlier versions of the proposals. I believe the attached revised versions address all of your comments.

Xiaodong Zhang

Robert M. Critchfield Professor, and CSE Department Chair



College of Engineering

122 Hitchcock Hall
2070 Neil Ave
Columbus, OH 43210

Phone (614) 247-6548
E-mail Tomasko.1@osu.edu

Date: 30 November 2010

To: Randy Smith
Vice Provost, Office of Academic Affairs

From: David Tomasko
Associate Dean, Undergraduate Education and Student Services

Subject: Semester Conversion Proposals for the BS-CIS, BA-CIS, and CIS Minor programs in the College of Arts & Science

The College of Engineering fully supports the continued offering of a Bachelor of Science degree in Computer and Information Science, a Bachelor of Arts degree in Computer and Information Science, and a Minor program in Computer and Information Science, by our Department of Computer Science and Engineering through the College of Arts & Science under semesters.

Minor in Computer and Information Science

Primary Contacts: Neelam Soundarajan (neelam@cse.ohio-state.edu, 2-1444) and Bruce W. Weide (weide.1, 292-1517)

1. Fiscal Unit / Academic Organization

Department of Computer Science and Engineering (1435)

2. Administering College / Academic Group

College of Arts and Sciences (ASC)

3. Co-administering College / Academic Group

College of Engineering (administrative home college for CSE)

4. Semester Conversion Designation

c. Converted with minimal changes to program goals and/or curricular requirements

5. Program / Plan Name

Minor in Computer and Information Science

6. Type of Program

Undergraduate minor

7. Program Plan Code Abbreviation

CPTRINF-MN

8. Degree Title

Not applicable

9. Specializations / Sub-plans

Not applicable

10. Program Learning Goals

Not required at this time for minors

11. List of Semester Courses

See Attachment #1: CIS Minor Proposed Program Requirements.

The proposed program consists of three components. The first is the *programming fundamentals* component consisting of a sequence of two courses, the first of which is a *prerequisite* to the minor, that will help students develop essential programming skills and develop their understanding of some key foundational concepts. This component has three different versions (*Tracks A, B, or C*) and students are required to complete one of the tracks. The second component is the *CIS Core* and consists of two courses, CSE 2321, which helps students understand some key theoretical concepts of the field; and CSE 3501, a one credit course on

COMPUTER AND INFORMATION SCIENCE MINOR PROGRAM PROPOSAL — 12/9/10

professional and ethical issues in computing which helps students develop insight into such questions as copyright and privacy. The third component is the *technical electives* which requires students to take two or more CSE courses (totaling 6 or more credit hours) at the 2000-level and above. Students may choose from among the following courses:

- CSE 2231, 4 hrs; Software II: Software development and design
Pre-req: CSE 2221; co-req: CSE 2321
- CSE 2331, 3 hrs; Foundations II: Data structures and algorithms
Pre-req: CSE 2231, 2321
- CSE 2421, 4 hrs; Systems I
Pre-req: CSE 2231, 2321
- CSE 3241, 3 hrs; Introduction to database systems
Pre-req: CSE 2231, 2321
- CSE 4251, 1 hr, Unix programming environment
Pre-req: CSE 2231
- CSE 4252, 1 hr, Programming in C++
Pre-req: CSE 2231
- CSE 4253, 1 hr, Programming in C#
Pre-req: CSE 2231
- CSE 4254, 1 hr, Programming in Lisp
Pre-req: CSE 2231
- CSE 4521, 3 hrs, Survey of AI for non-majors
Pre-req: CSE 1211 or 1221 or 1222 or 1223 or 2221
- CSE 5471, 3 hrs, Information security
Pre-req: CSE 2231, 2321
- Math 2566, 3 hrs, Discrete mathematics
Pre-req: Math 1151, 1152; CSE 2221

12. **Program Rationale**

The Computer and Information Science Minor is intended to permit students majoring in other disciplines to gain enough background and experience in computing foundations and software to understand in depth the relationships between their major field and computing. Graduates who can communicate in clear terms with software professionals who are tasked with designing computing applications (e.g., in the student's major field) are becoming increasingly valuable to employers. Moreover, looking at problems through the lens of "computational thinking" can bring new insights to students' future research in their major field, for those interested in graduate education.

The semester program is a more or less direct translation of the existing quarter program that will continue to address the above needs for students in the CIS Minor. Note that this minor is intended not just for students majoring in science and engineering, but rather for majors across the academy.

13. **Quarters Curriculum Advising Sheet**

See Attachment #2: Current Advising Sheet.

COMPUTER AND INFORMATION SCIENCE MINOR PROGRAM PROPOSAL — 12/9/10

14. Semesters Curriculum Advising Sheet

See Attachment #3: Proposed Advising Sheet.

15. Curricular Map

Not applicable

16. Associated Pre-Major or Area of Interest

Not applicable

17. Credit-Hour Changes

	Number of qtr-cr-hrs in current program	Calculated result for 2/3 of current qtr-cr-hrs	Number of sem-cr-hrs required for proposed program	Change in cr-hrs
Total minimum cr-hrs required for completion of program	25	16.7	13 to 14	-3.7 to -2.7
Required cr-hrs offered by the unit	22	14.7	10 to 14	-4.7 to -0.7
Required cr-hrs offered outside of the unit	3	2.0	0 to 3	-2.0 to 1.0
Required prerequisite cr-hrs not included above	0	0.0	3	3.0

18. Rationale for Significant Change in Credit Hours

The changes are primarily because the first programming course under semesters will be at the 1000-level and hence counted as a “pre-requisite” whereas, under quarters, it is at the 200-level and hence counted as part of the minor. When this is taken into account, the changes are minimal.

19. Transition Policy

No student who begins the Computer and Information Science Minor under quarters will have progress toward completion impeded by the transition to semesters. Computer and Information Science Minor requirements beginning Summer 2012 will be those in force for students under semesters; but *every* quarter-credit-hour that would have counted toward a Computer and Information Science Minor under the quarter-based program will count (as 2/3 of a semester-credit-hour) toward the requirements for the semester version. If necessary, a revision of specific requirements will be worked out for any Computer and Information Science Minor student who is caught in the transition, in consultation with the CSE Associate Chair.

— Xiaodong Zhang, CSE Department Chair

The transition policy is based on the following principles:

- The switch to semesters will impede no student’s progress toward graduation.
- All students who graduate under semesters, even during the first semester, will do so by meeting the requirements of the semester program.

COMPUTER AND INFORMATION SCIENCE MINOR PROGRAM PROPOSAL — 12/9/10

- Each semester program requirement may be met either by taking an appropriate semester course or sequence, or by substituting a substantially equivalent quarter course or sequence for the corresponding semester course or sequence.
- Excess equivalent credit-hours resulting from such substitutions—either positive or negative—will be credited against technical elective requirements.

Attachment #4: CIS Minor Proposed Transition Worksheet is a sample (for a particular student, Alice) of a web-based form that will be used to calculate the effect of observing these principles. The cells with a **dark green background**, along the first column and near the bottom, contain information specific to a student, and are intended to be filled in by the student working with an academic advisor. The remaining cells are fixed, and indicate the substitution mapping between courses that are part of the current CIS Minor program and those of the semester program.

In the sample shown, Alice has completed CSE 200, CSE 201, CSE 214, and Math 366 from the current CIS Minor program (the rows containing a “1” in column 1). All but the first of these courses substitute for particular courses in the semester program. Near the bottom of the worksheet, the row containing “Anything else counted now” shows 5 additional qtr-cr-hrs that would have counted toward Alice’s CIS Minor under quarters, i.e., CSE 200. The spreadsheet calculates for Alice the values labeled “Total Completed cr-hrs”, “Total Remaining cr-hrs”, and “Remaining Tech Elective cr-hrs”.

The results: Alice has 16 qtr-cr-hrs toward the CIS Minor. Her substitutions result in a deficit of 4.33 sem-cr-hrs in technical electives, which is rounded down to 4. Alice has completed all but the requirements shown in **bold** in the sample transition worksheet: “CSE 2501: Professionalism and Ethics” (1 cr-hr), plus 4 cr-hrs of technical electives. In other words, Alice still needs to complete these 5 cr-hrs under semesters in order to complete her CIS Minor. Once she does this, she will be able to graduate having completed $10.67 + 6 = 15.67$ equivalent sem-cr-hrs rather than the minimum 16 sem-cr-hrs (13 hours + 3 hours of the pre-requisite course, CSE 1223) in the new CIS Minor program.

It is possible that a student might have enough cr-hrs as of the end of Sp12 to graduate within two quarters, but might have failed to cover specific requirements rather than flexible technical electives that would take, say, two semesters to complete. We will rely on systematic advising of students during the year 2011-2012 in order to prevent this from happening.

The main issue facing students in transition is that one substitution calls for completion of a sequence of courses (***bold red italics*** in the transition worksheet) to complete a semester requirement. We will use two approaches to address this problem.

First, we will offer “bridge courses” in Su12 (CSE 222) and Au12 (CSE 321) in order to accommodate students who wish to start into the CSE 221/222/321 sequence in Wi12 or Sp12. The table below shows the schedules such students will be advised to follow, depending on which quarter they start this sequence. Students who do not plan to take classes during Su12 will be advised to take CSE 2221: “Software I” in Au12 rather than taking CSE 221 in Sp12.

Wi12 (qtr)	Sp12 (qtr)	Su12 (sem)	Au12 (sem)
CSE 221	CSE 222		CSE 2231.01 (bridge)
	CSE 221	CSE 2222 (bridge)	CSE 2231.01 (bridge)

Second, via systematic advising, we will seek to prevent students from starting into this sequence in the transition worksheet if they are not confident that they can complete it under quarters.

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All other issues will be handled on a case-by-case basis. The student, the CSE Advising Office, and if necessary the CSE Undergraduate Studies Committee will negotiate custom arrangements to fill the gap through a combination of allowing the substitution anyway, offering independent studies to make up deficiencies, and/or very limited requirements waivers.

20. *Assessment Practices*

Not applicable

Attachment #1:

CIS Minor Proposed Program Requirements

- One of Programming Fundamentals Track A, B, or C is required
- All courses under CIS Core must be completed
- Tech Elec may be any CSE courses approved by CSE Adv. Office, or Discrete Math (Math 2566)
- Minor program final approval is obtained from the CSE Advising Office
- ASC minor guidelines apply to transfer credits, overlaps, grades, etc.

Programming Fundamentals: Track A	Course Number	Cr-hrs	Completed
Pre-req†: Computational Thinking in Context: Images, Animation, and Software I: Software Components	CSE 1211	3	
	CSE 2221	4	
Total Track A cr-hrs (†pre-req hrs not included)		4	

Programming Fundamentals: Track B	Course Number	Cr-hrs	Completed
Pre-req†: Introduction to Computer Programming in C++ for Engr and Data Structures Using C++	CSE 1222	3	
	CSE 2122	3	
Total Track B cr-hrs (†pre-req hrs not included)		3	

Programming Fundamentals: Track C	Course Number	Cr-hrs	Completed
Pre-req†: Introduction to Computer Programming in Java Data Structures Using Java	CSE 1223	3	
	CSE 2123	3	
Total Track C cr-hrs (†pre-req hrs not included)		3	

CIS Core	Course Number	Cr-hrs	Completed
Foundations I	CSE 2321	3	
Professionalism and Ethics	CSE 2501	1	
Total CIS Core cr-hrs (= 4)		4	

Technical Electives	Course Number	Cr-hrs	Completed
Technical Elective			
Technical Elective			
Total Technical Electives cr-hrs (≥ 6)			

Grand Total (≥ 13)			
Note that pre-req hours are not included in total.			

The tech electives must be chosen from the following:
 CSE 2231, 2331, 2421, 3241, 4251, 4252, 4253, 4254,
 4521, 5471; Math 2566;
 And other courses approved by the CSE Advising Office.

Attachment #2: Current Advising Sheet

The Ohio State University
Colleges of the Arts and Sciences

Computer and Information Science Minor Students entering Autumn 07 or later

Department of Computer Science & Engineering,
395 Dreese Laboratories, 2015 Neil Avenue
Columbus, OH 43210-1277; 614-292-1900
<http://www.cse.ohio-state.edu>

The minor in computer and information science (CIS) consists of a minimum of 25 credit hours in one of two tracks: programming and algorithms, or information systems. See the course lists below. If you complete the minor following these guidelines, you should file the Minor Program Form with a college or school counselor. Any variation from the program described here needs the approval of the coordinating adviser in the Department of Computer Science & Engineering. **CIS minors do not pay a computing fee (at least not as part of their minor), they do not get permanent computer accounts on the CSE machines, and do not get priority scheduling.** For further information about the minor program, contact the CSE advising office.

Information systems track

Required courses

CSE 200, 201, 214, 670
Mathematics (Math) 366

Elective course (select a minimum of two)**

CSE 314, 551, 616, 671

Programming and algorithms track

Required courses

CSE 201 or 202, 221, 222, 321,
Math 366

Elective courses (select a minimum of two)**

CSE 360, 541, 551, 581, 621, 625, 630, 670, 671, 675.01 or 675.02, 677, 680.

**Other courses as approved by CSE Advising Office

Arts and Sciences minor program guidelines

The following guidelines govern minors.

Required for graduation No

Credit hours required A minimum of 20 (some minors require more)

Transfer credit hours allowed A maximum of 10

Overlap with the GEC Permitted, unless specifically disallowed by an individual minor program.

Overlap with the major Not allowed and

- The minor must be in a different subject than the major.
- The same courses cannot count on the minor and on the major.

Overlap between minors Each minor completed must contain 20 unique hours.

Grades required

- Minimum C- for a course to be listed on the minor.
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-Pass cannot count on the minor.

Approval required The minor program description sheet indicates if the minor course work must be approved by:

- The academic unit offering the minor, or
- A college or school counselor.

Filing the minor program form The minor program form must be filed at least by the time the graduation application is submitted to a college or school counselor.

Changing the minor Once the minor program is filed in the college office, any changes must be approved by:

- The academic unit offering the minor, or
- A college advisor (depending on the minor).

Department of CSE
01/10

Attachment #3: Proposed Advising Sheet

The Ohio State University
Colleges of the Arts and Sciences

Computer and Information Science Minor

Department of Computer Science & Engineering,
395 Dreese Laboratories, 2015 Neil Avenue
Columbus, OH 43210-1277; 614-292-1900
<http://www.cse.ohio-state.edu>

The minor in computer and information science (CIS) consists of a minimum of 13 credit hours; see the course lists below. The courses are in three categories: Programming Fundamentals, CIS Core, and Technical Electives. Three different tracks, A, B, and C, are available for the fundamentals portion; each track consists of a 3-cr hour pre-requisite course (which, being at the 1000-level, is not counted in the total hours for the minor), followed by a 3- or 4-cr hour course. The core consists a 3 cr hr course followed by a 1 cr hr course (on professionalism and ethics in computing). The electives portion requires the student to take a minimum of 6 cr hrs from a specified list of courses.

If you complete the minor following these guidelines, you should file the Minor Program Form with a college or school counselor. Any variation from the program described here needs the approval of the coordinating adviser in the Department of Computer Science & Engineering.

CIS minors do not get permanent computer accounts on the CSE machines, and do not get priority scheduling in CSE courses. For further information about the minor program, contact the CSE advising office.

Programming Fundamentals:

Complete *one* of the following *tracks*:

Track A: CSE 1211 (3 hrs), CSE 2221 (4 hrs)

Track B: CSE 1222 (3 hrs), CSE 2122 (3 hrs)

Track C: CSE 1223 (3 hrs), CSE 2123 (3 hrs)

CIS Core:

CSE 2321, Foundations I (3 hrs)

CSE 2501, Professionalism & ethics (1 hr)

Technical Electives:

Choose a minimum of 6 cr hrs from the following:

CSE 2231 (4 hrs), 2331 (3 hrs), 2421 (4 hrs),

3241 (3 hrs), 4251 (1 hr), 4252 (1 hr), 4253 (1 hr),

4254(1 hr), 4521 (3 hr), 5471 (3 hrs);

Math 2566(3 hrs); and other courses as approved by the CSE Advising Office

Getting Started

Prospective students should begin by contacting the CSE Department's Undergraduate Advising Office (DL 374, tel: 292-1900)

Arts and Sciences minor program guidelines

The following guidelines govern minors.

Required for graduation No

Credit hours required A minimum of 12 (some minors require more)

Transfer credit hours allowed A maximum of 6

Overlap with the GE Permitted, unless specifically disallowed by an individual minor program.

Overlap with the major Not allowed and

- The minor must be in a different subject than the major.
- The same courses cannot count on the minor and on the major.

Overlap between minors Each minor completed must contain 12 unique hours.

Grades required

- Minimum C- for a course to be listed on the minor.
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-Pass cannot count on the minor.

Approval required The minor program description sheet indicates if the minor course work must be approved by:

- The academic unit offering the minor, or
- A college or school counselor.

Filing the minor program form The minor program form must be filed at least by the time the graduation application is submitted to a college or school counselor.

Changing the minor Once the minor program is filed in the college office, any changes must be approved by:

- The academic unit offering the minor, or
- A college advisor (depending on the minor).

Attachment #4:
CIS Minor Proposed Transition Worksheet

Bold red italics: combination required

Done?	Quarter Course Completed	q-cr-hrs	Equiv s-cr-hrs	Substitutes For	s-cr-hrs	Excess s-cr-hrs
	CSE 203/204 (Computational thinking in context)	4	2.67	CSE 1211: Computational Thinking in Context: Images, Animation, and G	3	-0.33
	<i>CSE 221 and CSE 222</i> <i>(Softw dev using comp; Dev of SW comp)</i>	8	5.33	CSE 2221: Software I: Software Components	4	1.33
	CSE 202 (Intr to pgmng &alg for engrs. &sc.	4	2.67	CSE 1222: Introduction to Computer Programming in C++ for Engr and S	3	-0.33
	CSE 230 (C++ programming)	4	2.67	CSE 2122: Data Structures Using C++	3	-0.33
1	CSE 201 (Elem. comp. pgmng (Java))	4	2.67	CSE 2123: Introduction to Computer Programming in Java	3	-0.33
1	CSE 214 (Data str. for info. sys.)	4	2.67	CSE 1233: Data Structures Using Java	3	-0.33
1	Math 366 (Discrete mathematics)	3	2.00	CSE 2321: Foundations I: Discrete Structures	3	-1.00
	CSE 601 (Social, ethical issues in emptng)	1	0.67	CSE 2501: Professionalism and Ethics	1	-0.33
1	Anything else counted now: [list here]	5	3.33	Technical Electives	6	-2.67

* Any equiv s-cr-hr difference counts in tech electives.

16	10.67	Total Completed cr-hrs
	5.33	Total Remaining cr-hrs
	4.33	Remaining Tech Elective cr-hrs

After meeting with my academic advisor, I understand the conversion of my coursework from quarters to semesters. I also understand that:

- 1) I will not be impeded toward completion if I follow the plan put forward in this transition worksheet and the attached timetable for completion, and
- 2) If I fail to make satisfactory progress or fail to schedule courses in a timely manner, or otherwise need to revise this plan, I will work with the CSE Advising Office to determine an alternate plan which may require additional time to complete.

Student printed name / signature / date: _____ / _____ / _____

Advisor printed name / signature / date: _____ / _____ / _____