

Indiana University of Pennsylvania Computer Science Department December 2, 1987

SUBJECT: Curriculum Changes for Computer Science

TO:

Dr. Hal Sommer, Co-Chair

Senate Undergraduate Curriculum Committee

Dr. Hilda Richards, Co-Chair

Senate Undergraduate Curriculum Committee

FROM:

Thomas P. Cunningham, Chairman

Computer Science Department

T. P.C.

The Computer Science Department would like to request approval for the following change to our degree requirements. This change has been approved by the Computer Science Department Faculty and Dean of the College of Natural science and Mathematics.

Add the following minors in Geography and Economics to the list of alternatives under "Other—Requirement" necessary to obtain the B.S.. Degree rather than the B.A. Degree.

Other Requirements: ....

Completion of one of the following:

- Minor from the College of Natural Science and Mathematics,
- b) Minor (Concentration) from designated Business courses (18 minimum),
- c) Minor from designated Geography courses (15 minimum),
- d) Minor from designated Economics courses (15 minimum),
- e) Nine additional hours of Computer Science controlled electives, including 4 hours of 0 485 or CO 493.

The approved minor in Geography is:

1. At least one course from the following (3 credits):

GE 230 Cultural Geography GE 241 Physical Geography

2. At least three courses from the following (9 credits):

GE 313 Cartography

GE 314 Map and Photography Interpretation

GE 331 Population Geography

GE 361 Planning: Basic Studies and Analysis

GE 415 Remote Sensing

GE 416 Computer Assisted Cartography

3. At least one other Geography course.

## The approved minor in Economics is:

1. Must take (12 credits)

EC 121 Principles of Economics I
EC 122 Principles of Economics II
EC 356 Introduction to Econometrics
EC 334 Economics of Corporate Decisions

At least one other Economics Course except:

EC 101 Basic Economics

Since these are both minors, the student will also have to have at least a 2.0 QPA and completed at least six credits at IUP.

## For Information:

The approved Business Minor (Concentration) is:

A student wishing to obtain a B.S. in Computer Science by fulfilling a business concentration as part of his requirements, must complete at least 18 semester hours from the following list of courses (with at least a 2.0 quality point average and at least 6 credits completed at IUP).

AD	235	Introduction to Business Law
AG	201	Accounting Principles I
AG	202	Accounting Principles II Prerequisite: 2.0 GPA in AG 201
FI	310	Finance I Prerequisite: AG 201
IM	251	Business Systems Analysis and Design Prerequisites: AG 201 and FS 240 (or FS 241 or CO 110)
· IM	451	System Analysis Prerequisites: FS 350, FS 370, or FS 352 (CO 300, CO 315 or CO 220 may be acceptable)
MG	311	Human Behavior in Organizations Prerequisite: PC 101

Prerequisites Upper division students only

Management and Production Concepts

Principles of Marketing

TPC/cam

Attachments

MG 360

MK 320

## INDIANA UNIVERSITY OF PENNSYLVANIA . INDIANA, PENNSYLVANIA 15705

Department of Geography and Regional Planning • 2 Leonard Hall • 412-357-2250

6 April 1987

SUBJECT: Minor in Geography for Computer Science

Majors

TO:

Thomas P. Cunningham, Chair

Curriculum Committee

Computer Science Department

FROM:

Ruth I. Shirey, Chair

Geography and Regional Planning

This memorandum is to inform you of this department's support for the proposed minor in geography for the computer science major. We look forward to working with both the students from Computer Science who minor, as well as those who major in geography.

There is one change to a course title about which we need to inform you. GE 416 will be approved by the Senate with the title: Computer-Assisted Cartography.

SUBJECT: Minor in Economics for Computer Science Majors

TO: Dr. Thomas P. Cunningham, Chairperson

Curriculum Committee

Computer Science Department

FROM: Donald A. Walker

Chairperson, Department of Economics

DATE: April 11, 1987

Thank you for your memo dated April 1, 1987.

The composition of the economics minor that you have proposed has been reviewed by the Department of Economics Curriculum Committee and the Department of Economics as a whole.

Our conclusion is that it is very soundly constructed from an academic point of view, and from the viewpoint of the skills that a computer science student will find useful after he or she has graduated from college. We wish to express our strong support of the proposed minor precisely as it is described in your memorandum, and we hope that your students elect to take it. SUBJECT: Minors in Geography and Economics Approved for Computer Science Majors to Qualify for the B.S. Degree

TO: Mr. Gary Buterbaugh, Chairperson Computer Science Department

FROM: Charles R. Fuget, Dean College of Natural Sciences & Mathematics

The Advisory Committee of the College of Natural Sciences & Mathematics has recommended that minors in Geography and Economics are appropriate to qualify a student majoring in Computer Science to receive the B.S. Degree rather than the B.A. Degree. The Advisory Committee has recommended to me that the minors in Geography and Economics listed below be forwarded to the University Senate Curriculum Committee as minors appropriate to the B.S. Degree in Computer Science. The Advisory Committee has also recommended that letters of support from the department chairpersons in Geography and Economics accompany the formal request presented to the Curriculum Committee. I endorse the recommendation of the Advisory Committee and request that you forward the appropriate number of copies along with the supporting letters to the University Senate Curriculum Committee for their review and approval.

The approved minors in Geography and Economics are the following:

Minor in Geography (15 credits) including:

- 1. At least one course from the following (3 cr): GE 230 Cultural Geography GE 241 Physical Geography
- 2. At least three courses from the following (9 cr): GE 313 Cartography

GE 314 Map and Photography Interpretation

GE 331 Population Geography

GE 361 Planning: Basic Studies and Analysis

GE 415 Remote Sensing GE 416 Computer Mapping

3. At least one other Geography course.

## Minor in Economics (15 credits) including:

- 1. Must take (12 cr)
  EC 121 Principles of Economics I
  EC 122 Principles of Economics II
  EC 356 introduction to Econometrics
  EC 334 Economics of Corporate Decision
- 2. At least one other Economics Course except: EC 101 Basic Economics

CRF/clg

Indiana University of Pennsylvania Computer Science Department

SUBJECT: Minor in Economics for Computer Science Majors

TO:

Donald A. Walker, Chair Economics Department

FROM:

Thomas P. Cunningham, Chair The. Curriculum Committee

Curriculum Committee

Computer Science Department

As you may recall, we had a telephone conversation last Spring semester regarding the appropriate courses for a minor in economics for computer science majors. If a student completes the requirements for the computer science major (B.A.) \* and a minor approved by the Computer Science Department, he is then awarded a B.S. in Computer Science.

The following economics minor has been approved by the Computer Science faculty and the College of Natural Sciences and Mathematics.

A Minor in Economics (15 semester hours minimum-with-at least a 2.0 quality point average) including:

The following four courses:

EC 121 Principles of Economics I

EC 122 Principles of Economics II

EC 334 Economics of Corporate Decisions

EC 356 Introduction to Econometrics (Prerequisite: EC 355 or its mathematical equivalent)

At least one additional Economics course excluding ii. EC 101.

Before this proposal is presented to the University Senate's Curriculum Committee we will need a letter of support from your department. As I indicated to you last spring, I would only expect one or two students per year to elect this option.

Thank you for your cooperation.

\*The requirements for a B.A. in Computer Science are:

- The University's General Education requirement,
  The College's Foreign Language requirement (language 2. III and IV)
- The Department's Math requirement (Finite Math, 3. Calculus, Statistics), and
- 30 credits of selected Computer Science Courses

Enclosure

Indiana University of Pennsylvania Computer Science Department

April 1, 1987

SUBJECT: Minor in Geography for Computer Science Majors

TO:

Ruth J. Shirey, Chair

Geography and Regional Planning

FROM:

Thomas P. Cunningham, Chair  $\mathcal{FC}$ .

Curriculum Committee

Computer Science Department

As you may recall, we had an exchange of memoranda last Spring semester regarding the appropriate courses for a minor in Geography for computer science majors. If a student completes the requirements for the computer science major (B.A.)\* and a minor approved by the Computer Science Department, he is then awarded a B.S. in Computer Science.

The following geography minor has been approved by the Computer Science faculty and the College of Natural Sciences and Mathematics.

A Minor in Geography (15 semester hours minimum with at least a 2.0 quality point average) including:

- i. At least one course from the following list:
  - GE 230 Cultural Geography
  - GE 241 Physical Geography
- ii. At least three courses from the following list:
  - GE 313 Cartography
  - GE 314 Map and Photograph Interpretation
  - GE 331 Population Geography
  - GE 361 Planning: Basic Studies and Analysis
    (Prerequisite: GE 360 Introduction to Planning)
  - GE 415 Remote Sensing
  - GE 416 Computer Mapping

Before this proposal is presented to the University Senate's Curriculum Committee we will need a letter of support from your department. As I indicated to you last spring, I would only expect one or two students per year to elect this option.

Thank you for your cooperation.

\*The requirements for a B.A. in Computer Science are:

- The University's General Education requirement, The College's Foreign Language requirement (language 2. III and IV)
- The Department's Math requirement (Finite Math, Calculus, Statistics), and 30 credits of selected Computer Science Courses

Enclosure