QUEENSBOROUGH COMMUNITY COLLEGE  
CITY UNIVERSITY OF NEW YORK  
CURRICULUM COMMITTEE

TO:       S. Karimi, A. Kolios, R. Rusinek, E. Tai, N. Tully, R. Yuster,  
          Dean K. Steele (ex-officio); P. Pecorino (Steering Committee Designee)

FROM:     Frank Cotty  
          x6056

DATE:     September 13, 2005

RE:       Curriculum Committee meeting: September 20, 2005, at 2:15 PM H345

The Curriculum Committee will meet at 2:15 PM on Tuesday, 9-20-05 in H345.

Agenda

1. Consideration of Minutes of September 13, 2005 Meeting.
2. Chair’s report / Communications
3. Computer Literacy criteria for courses in the AA program.
Below is a document that was used by the Committee on Curriculum some 20 years ago to report on what the “Computer Science”, and later the “Computer Literacy” requirement, was about in the A.A. degree program. The criteria for such classes as would satisfy that requirement are in need of revision. Much has changed since 1983 and students coming to QCC now have different experiences with computers. There is now a growing concern for both “Computer Literacy” and “Information Literacy”. In fact there is now emerging discussion about “Technology Literacy” as well. The general need for all students at QCC to be able to acquire and organize information and knowledge is one of the Educational Objectives for all degree programs. The University and the University Faculty Senate have recommended that these basic literacies become part of general education and part of all undergraduate degree programs. How to best go about insuring that all QCC graduates will have the desired “literacies” is a matter of concern. The Library has proposed a single class offered for a single credit as a vehicle for developing such information competencies. Using a single class as the device to deliver this instruction or insure the development of the competencies was deemed as insufficient and impractical to insure all QCC Associate Degree students would acquire the needed competencies. The single elective in the A.A. degree program is similarly situated as being obviously insufficient as it is in only one degree program. It is impractical as well because there are too few resources available to deliver the needed instruction to all students by means of a single class or even through some small set of classes.

A current request to have another class considered as satisfying the “Computer Literacy” requirement has led to the realization that there is a need to revisit the intent behind the current requirement and the criteria used to screen course candidates. It has also been learned that classes previously thought to have met the criteria for a “Computer Literacy” may no longer be meeting those criteria as the course content has been changed in some of the departments.

The Committee on Curriculum might proceed with the following:

1. review and revise the original document (below)
2. develop a revision of the current requirement in the A.A. degree program based on the revised document
3. extend the revised document to encompass a broader set of possible approaches for insuring that the competencies or literacies are achieved by all associate degree students

As an interim measure, the Committee on Curriculum might review all classes offered by the College to determine which would satisfy the new criteria for “Computer Literacy”. Such a review process would involve enunciating the revised criteria and having all departments present courses they believe satisfy the new criteria, and then presenting the revised criteria and the courses believed to satisfy those criteria to the Academic Senate as a revision of the single elective in the single associate in arts degree program. This would not be the solution or even “a” solution to the more general and basic task of insuring that the competencies or literacies are achieved by all associate degree students.
COLLEGE CURRICULUM COMMITTEE

Report and Recommendations
on the
"Computer Science" Elective in the A.A. Degree Program

Background

At its meeting of May 13, 1980 the Academic Senate adopted Motion LXXXIX, the Curriculum Proposal of the Ad Hoc Committee on Academic Programs and Objectives. On page 223 of those Senate minutes the revised Liberal Arts and Science Core for the A.A. Degree is listed as including 3 to 4½ credits in "Natural Science, Computer Science or Mathematics". On page 228, in section VII (Implementation) of that Curriculum Resolution, sub-section C (on Modifications of Present Offerings) states the following:

1. Appropriate Departments consider developing an introductory course in computer science that would serve as an alternative to the 3rd course requirement in the mathematics/natural science sequence in the A.A. degree. We deem this important in light of the growing role of computers in everyday life.

Further, the Senate instructed the Curriculum Committee to implement the Curriculum Resolution that it had approved. There are no other appearances of the phrase "computer science" in the Senate minutes. Since that time several Departments have requested that the Curriculum Committee recommend existing or proposed courses to the Senate as satisfying the "computer science" elective in the A.A. program. In September of 1982 the Curriculum Committee formed a sub-committee to handle the matter of the "Computer Science" elective in the core of the A.A. degree.

The Committee met regularly and prepared an "Interim Report" which was circulated to the full Committee and to all Department Chairpersons in November of 1982. All interested parties were invited to send their comments and suggestions to the Committee and several people met with the Committee to discuss the procedures, the criteria, the objectives and the findings of the sub-committee. To date no one has submitted any statement criticizing the conduct or conclusions of the Committee;

The sub-committee undertook the following tasks:

1. To understand and articulate the intention of the Senate in establishing a "Computer Science" elective,

2. To establish the minimum criteria for courses that would satisfy the purpose of the Senate's action,

3. To survey all present and proposed courses to ascertain which, if any, would satisfy those criteria, and

4. To present its findings to the full Committee.
The sub-committee presented its report to the full Committee which deliberated upon it during December and early January 1983. Slight changes were made and then the Committee approved the sub-committee report making it its own on January 4, 1983.

On January 11, 1983 the Committee met to decide upon which specific courses to recommend to the Academic Senate as satisfying the "Computer Science" elective in the A.A. program.

The findings and position of the Committee are part of the following report which includes:

I. Statement of the General Goals for such a course (The Committee's interpretations of the Senate's intention)

II. Listing of the Minimum Criteria or Features to be satisfied or exemplified by any such course.

III. Another Desirable Feature for such courses.

IV. Other Comments

V. Specific Recommendations.

The Committee will continue to consider whether other such courses (both presently offered and newly proposed) should also be recommended as satisfying the "Computer Science" requirement and whether such courses are to be considered as Mathematics or Science courses in the A.S. concentration area in Mathematics or Science.
REPORT ON THE "COMPUTER SCIENCE" ELECTIVE IN THE A.A. DEGREE PROGRAM

I. General Goals

Any course which is used to satisfy this requirement should introduce the student to what computers are and consist of, what they can do and how to use them. By providing knowledge and practical experience these courses should facilitate the students' access to and their use of computers, and help them overcome obstacles posed by ignorance and anxiety.

II. Minimal Essential Criteria or Features to be met by any course that is to satisfy the "Computer Science" elective. Courses should include:

1. Computer Literacy - Overall Familiarity with computers
   A. Architecture
   B. Components - Basic Hardware
   C. Fundamental Operations
   D. Fundamental Software
   E. Concepts Such as Real Time/Off-Line/Time-Sharing
   F. Classes of Computers: personal mini, micro, main-frame
   G. History

2. Computer Culture - Knowledge of General Applications

   Introduction to several fields of application by lectures, readings, or Audio-Visual Presentations, emphasis is to be given to fields within the Liberal Arts and Sciences.

3. Programming
   A. Basic and General Understanding of Programming
   B. Basic and General Understanding of Algorithms

4. Programming Language

   Knowledge of the simplest parts of at least one high level programming language such as: Basic, Cobol, Fortran, Pascal, PLI.

5. Practical Experience - Minimal Skills in using a Computer
   A. Fundamental Operations
   B. Fundamental Instructions
   C. Fundamental Programming

III. Desirable Feature

Courses should include at least one hour per week of practical experience.

IV. Other Comments

1. Prerequisites for such courses can vary according to Departmental judgment in order to permit both sophisticated and elementary level courses that would satisfy the minimal criteria.
2. Courses could be offered which take particular orientations toward essential criteria and which offer various programming languages to allow for greater latitude for student choice and as suitable for a range of student interests.

3. Any department with qualified staff may offer such courses and the Senate has encouraged "appropriate departments" to do so.

4. In the future, these criteria will serve as a record to explain the present Curriculum Committee's actions in deciding whether or not to recommend courses as satisfying the "computer science" elective.

5. As courses which satisfy the minimum criteria are likely to have a significant portion of those courses covering the same material differing mainly only in orientation and computer language, therefore these courses should be mutually exclusive. No more than one should be permitted to count within any degree program at the college. Yet students should be permitted to take more than one if they so desire in order to learn another programming language or range of applications.

V. Specific Recommendations

Based upon all of the preceding, the Curriculum Committee recommends that the following courses be accepted as satisfying the "Computer Science" Elective in the A.A. Degree Program:

   ET-82
   MA-341

Furthermore, the Committee recommends that no more than one of the above courses may be used to fulfill the degree requirements for any A.A. or A.S or A.A.S. degree.

Students may enroll in and receive credit for more than one of these courses but only one course is to be credited toward the fulfillment of any associate degree requirements. A notice to this effect should appear in the catalog after the listing of each such course.