*New York City College of Technology, CUNY*



CURRICULUM MODIFICATION PROPOSAL

🡺 Please refer to the [Curriculum Modification Guide](http://websupport2.citytech.cuny.edu/curriculum/guide/) before submitting a proposal.

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| **Title of Proposal** | **Date** |
| < Change in Computer Science Courses > | < Feb 1, 2010 > |
| **Department Chairperson / Coordinator** | **Department/Program** |
| < Sandie Han, CSC coordinator > | < Computer Science Program > |
| **Brief Description** | |
| < There are a couple of changes in the core requirement and some changes in the CSC elective choices. > | |
| **Indicate the specific change or changes desired.** | |
| **MAJOR:**  \_\_new course(s)  \_\_experimental courses  \_\_Continuing Education courses for credit  \_\_addition or elimination of programs or certificates  \_\_changes in entrance requirements for matriculation or admission to a specific degree program  \_\_a change which would affect the educational objective of a department and/or of the college | **MINOR:**  \_\_change in course number and/or title  \_\_change in course description  \_\_change in sequence of courses  \_\_change in prerequisites or corequisites for individual course  \_X\_substitution of one course for another of similar hours and credits  \_X\_substitution of required course(s) for the degree  \_\_course(s) withdrawn or reinstated |
| **Supporting Documents Checklist:** | |
| **MAJOR:**   * Complete description of MAJOR modifications and rationale * All course proposals (see [Course Proposal Document Checklist](http://websupport2.citytech.cuny.edu/curriculum/guide/major.html#course)) * Catalog course description specifying hours and credits for lecture and labs, prerequisites and/or corequisites * Relevant minutes from department meetings * Completed [Curriculum Modification Questions](http://websupport2.citytech.cuny.edu/curriculum/guide/references/cm_questions.doc) * Documentation of needs assessment * Documentation of student views * Documentation of Advisory Commission views (if applicable). * Evidence of consultation with all affected departments * Projected headcounts (fall/spring and day/evening) for each new or modified course. * Memo or email from the academic dean to the Curriculum Committee chairperson with a recommendation for or against adopting the proposed change(s) and reasons for the recommendation. * Completed [Library Resources and Information Literacy Form](http://websupport2.citytech.cuny.edu/curriculum/guide/references/form_library.doc) * A memorandum from the VP for Finance and Administration with written comments regarding additional and/or new facilities, renovations or construction (if applicable). * Comparative charts, specifying differences in class hours, lab hours and credits, including course titles and codes. * Documentation indicating core curriculum requirements have been met for New Programs/Options or Program Changes. (if applicable) * Plan and process for evaluation of Curricular Experiments (if applicable) * Established time limit for Curricular Experiments (if applicable) | **MINOR:**   * Description of MINOR modifications and rationale * Department minutes with record of the approval * Memo or email from the Dean approving the change * Evidence of consultation with all affected departments * Completed [Curriculum Modification Questions](http://websupport2.citytech.cuny.edu/curriculum/guide/references/cm_questions.doc) |
| **Submitted by** | |
| < type here > | Email this form along with all supporting documents to the Chair of the College Council Curriculum Committee.  🡺 Prof… |

**DESCRIPTION OF MODIFICATIONS**

The Computer Science curriculum will be modified in the following way:

* 1. Under Computer Science core, students will be required to take one of the following two courses:

EMT1250 Digital Control (4 Cr)

or

EET1122 Circuit Analysis I (4 Cr)

* 1. Under CSC Liberal Arts Core, students may choose ECON1101, but not History. History course is no longer an option.
  2. Under CSC electives, the following courses will be offered as CSC electives, in addition to the current list of electives:

CST 3504 Microcomputer Databases (*3 Cr*)

* 1. Under CSC electives, the following courses will no longer be offered as CSC electives:

ADV 1162 Raster & Vector Art (3 Cr)

BIO 3350 Elements of Bioinformatics (*4 Cr*)

EET 1122 Circuit Analysis l (*4 Cr*)

EMT 1250 Digital Control (*4 Cr*)

HIS 3209 History of Technology (*3 Cr*)

MAT 2588 Mathematics of Finance (*3 Cr*)

MAT 2672 Probability and Statistics ll (*4 Cr*)

COMM Communications (*3 Cr*)

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| **From** | **To** |
| **Current Required Courses under Computer Science Core** | **Proposed Required Courses under Computer Science Core** |
| MAT 2440 Discrete Structures & Algorithms I  MAT 2540 Discrete Structures & Algorithms II  CST2403 C++ Programming I  CST2503 C++ Programming II  *Select one:*  MAT 1476L Calculus Lab  CST 1101 Comp Program & Problem Solving | MAT 2440 Discrete Structures & Algorithms I  MAT 2540 Discrete Structures & Algorithms II  CST2403 C++ Programming I  CST2503 C++ Programming II  *Select one:*  MAT 1476L Calculus Lab  CST 1101 Comp Program & Problem Solving  *Select one:*  EMT1250 Digital Control (4 Cr)  EET1122 Circuit Analysis I (4 Cr) |
| **Current Required Courses under Liberal Arts Core** | **Proposed Required Courses under Liberal Arts Core** |
| ENG 1101 English Composition I  ECON 1101 or History (HIS 11..)\*  COMM  LAP | ENG 1101 English Composition I  ECON 1101  COMM  LAP |
| **Current CSC Elective Choices** | **Proposed CSC Elective Choices** |
| ADV 1162 Raster & Vector Art (3 Cr)\*  ADV 2450 Web Design I (2 Cr)  ADV 3551 Web Design II (3 Cr)  ADV 3662 Web Design III (3 Cr)  BIO 2311 Human Anatomy and Physiology I (4 Cr)  BIO 2312 Human Anatomy and Physiology II (4 Cr)  BIO 3350 Elements of Bioinformatics (4 Cr)\*  CHEM 1210 General Chemistry II (4 Cr)  CHEM 2223 Organic Chemistry I (5 Cr)  CHEM 2323 Organic Chemistry II (5 Cr)  CET 3510 Microcomputer Systems Technology (4 Cr)  CET 4952 Robotics Technology (4 Cr)  CET 4960 Applied Digital Technology (4 Cr)  CET 4962 Applied Software Technology (4 Cr)  CET 4972 Digital Integrated Circuits (4 Cr)  CST 1204 Database Systems (3 Cr)  CST 3603 Object Oriented Programming (3 Cr)  MST 2307 Local Area Network (4 Cr)  ECON 2301 Money and Banking (3 Cr)  EET 1122 Circuit Analysis l (4 Cr)\*  EET 1240 Electronics (4 Cr)  EET 1241 Electronics Lab (1 Cr)  EET 2140 Communications Electronics (3 Cr)  EET 2141 Communications Electronics Lab (1 Cr)  EET 2162 Digital Electronics I (3 Cr)  EET 2261 Digital Electronics II (3 Cr)  EET 2271 Circuit Analysis Lab (1 Cr)  TCET 2242 Microcomputer Interfacing (3 Cr)  EMT 1250 Digital Control (4 Cr)\*  ENG 3773 Advanced Technical Writing (3 Cr)  HIS 3209 History of Technology (3 Cr)\*  MAT 2588 Mathematics of Finance (3 Cr)\*  MAT 2630 Numerical Methods (3 Cr)  MAT 2672 Probability and Statistics ll (4 Cr)\*  MAT 2675 Calculus lll (4 Cr)  MAT 2680 Differential Equations (3 Cr)  MAT 2899 Independent Research Project (2 Cr)  MAT 2900 Internship (2 Cr)  PHYS 1442 Physics 2.3 (5 Cr)  COMM Communications (3 Cr)\*  **\*Courses removed from the list** | ADV 2450 Web Design I (2 Cr)  ADV 3551 Web Design II (3 Cr)  ADV 3662 Web Design III (3 Cr)  BIO 2311 Human Anatomy and Physiology I (4 Cr)  BIO 2312 Human Anatomy and Physiology II (4 Cr)  CHEM 1210 General Chemistry II (4 Cr)  CHEM 2223 Organic Chemistry I (5 Cr)  CHEM 2323 Organic Chemistry II (5 Cr)  CET 3510 Microcomputer Systems Technology (4 Cr)  CET 4952 Robotics Technology (4 Cr)  CET 4960 Applied Digital Technology (4 Cr)  CET 4962 Applied Software Technology (4 Cr)  CET 4972 Digital Integrated Circuits (4 Cr)  CST 1204 Database Systems (3 Cr)  CST 3603 Object Oriented Programming (3 Cr)  CST 3504 Microcomputer Databases (3 Cr)\*\*  CST2307 Local Area Networks (4 Cr)  ECON 2301 Money and Banking (3 Cr)  EET 1240 Electronics (4 Cr)  EET 1241 Electronics Lab (1 Cr)  EET 2140 Communications Electronics (3 Cr)  EET 2141 Communications Electronics Lab (1 Cr)  EET 2162 Digital Electronics I (3 Cr)  EET 2261 Digital Electronics II (3 Cr)  EET 2271 Circuit Analysis Lab (1 Cr)  TCET 2242 Microcomputer Interfacing (3 Cr)  ENG 3773 Advanced Technical Writing (3 Cr)  MAT 2630 Numerical Methods (3 Cr)  MAT 2675 Calculus lll (4 Cr)  MAT 2680 Differential Equations (3 Cr)  MAT 2899 Independent Research Project (2 Cr)  MAT 2900 Internship (2 Cr)  PHYS 1442 Physics 2.3 (5 Cr)  **\*\*Courses added to the list** |

**RATIONALE**

The rationale for these changes is outlined below:

1. Students will choose either EMT1250 or EET1122, not both. Both courses introduce students to the hardware component of the computer science. Currently, many students take either EMT1250 or EET1122 as a CSC elective. Furthermore, the CSC program commonly received transfer students from EMT and EET departments, and vice versa. Making EMT1250 and EET1122 a required course offers greater flexibility for students in these three programs to transfer within. Moreover, this allows students in lower level math take the prerequisite courses with financial aid (TAP).
2. History option is removed from the Liberal Arts Core, because it is preferred that CSC students take ECON1101. The History option was created for students who may want to continue with History of Technology. However, this point was not made clear during advisement.
3. CST3504 is added to the list to offer CSC students more programming experience.
4. Many courses are removed from the list of CSC electives.
5. EMT1250 and EET1122 are proposed to become required courses.
6. BIO3350 requires low level of math, MAT1275, as pre-requisite. It is preferred that students take higher level courses as electives.
7. ADV1162 is an intro level course. Students in upper level math and programming courses, with department permission, may take ADV2450 without ADV1162.
8. The Liberal Arts elective courses, HIS3209 and COMM are removed from the CSC electives. The purpose of this change is to ensure students take specific courses such as ENG3772 in building desirable skills.
9. The upper level math courses, MAT2588 and MAT2672, are removed from the CSC electives. Students interested in math can consider MAT2675, MAT2630, MAT2680.
10. The purpose of these changes is to provide more structure in directing students into various BS programs within City Tech, as well as computer science programs in other colleges. Moreover, students still have the flexibility of a wide range of elective courses which build strong foundation in computer science.