## change of COURSE PROPOSAL FORM

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| --- | --- |
| Academic area: | School of Business and Technology  |
| PROGRAM: | AS COMPUTER PROGRAMMING AND ANALYSIS  |
| PROPOSEd by: | Scott Vanselow  |
| PRESENTER: | Scott Vanselow |
| SUBMISSION DATE: | 12/12/13 |
| CURRENT COURSE PREFIX, NUMBER AND TITLE: | **cop 1224 programming with c++** |

### SECTION I

|  |  |
| --- | --- |
| TYPE(S) OF COURSE CHANGE: | TYPE PROPOSED CHANGE HERE FOR EACH ITEM CHECKED: |
|  | lecture/lab course must have “c” / lab course must have “l” |
|  | type new COURSE TITLE HERE |
|  | ENTER NEW SCHOOL, DIVISION, OR DEPARTMENT |
|  | LIST ALL PREREQUISITES IN SEQUENTIAL ORDER and include the minimum grade for each |
| **DO YOU ANTICIPATE THAT STUDENTS WILL BE TAKING ANY OF THE PREREQUISITES LISTED FOR THIS COURSE IN DIFFERENT PARTS OF THE SAME TERM?** | NO |
|  | LIST ALL COREQUISITES IN SEQUENTIAL ORDER |
| **IS ANY COREQUISITE LISTED ON THIS COURSE LISTED AS A COREQUISITE ON ITS PAIRED COURSE?** eXAMPLE: CHM 2032 IS A COREQUISITE FOR CHM 2032L AND CHM 2032L IS A COREQUISITE FOR CHM 2032. | NO |
|  | Click here to ENTER THE NUMBER of CREDITS OR cLOCK HOURS |
|  | SELECT A CREDIT TYPE |
|  | Click here to enter CONTACT HOURS |
|  | SELECT GRADE MODE |
|  |
| This course teaches software development fundamentals in the C++ programming language using a hands-on approach. Familiarity with basic programming concepts is required but experience with the specific language is not assumed. |
|  |
| * Understanding core programming: computer storage and data types, decision structures, repetition, error handling.
* Understanding object-oriented programming: fundamentals of classes, inheritance, polymorphism, encapsulation.
* Understanding general software development: application life cycle management, interpreting application specifications, algorithms and data structures.
* Understanding databases: relational database management systems, query methods, connection methods.
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**** YES

If yes, list below (for information purposes only). TYPE IN ALL OF THE LEARNING OUTCOMES, ASSESSMENTS, AND GENeral EDucation COMPETENCIES AS THEY SHOULD BE DISPLAYED IN THE SYLLABUS

|  |  |  |
| --- | --- | --- |
| LEARNING OUTCOMES | ASSESSMENTS | GENERAL EDUCATION COMPETENCIES |
| Analyze a problem and solve it using algorithmic problem-solving techniques. | Pseudocode and flowchart creation assignments. Final exam. | CT |
| Use programming development tools to exemplify core programming structures and concepts including computer storage and data types, decision structures, repetition, error handling, and modules in the specific language. | Coding activity including identifying, designing, coding, testing, debugging, revising, and assembling modules. Final exam. |  |
| Create applications using modern object-oriented design techniques including abstraction, inheritance, and encapsulation. | Coding activity. Final exam. |  |
| Analyze the Association for Computing Machinery Code of Ethics and Professional Conduct. | Ethics report | GSR |
| Evaluate and apply basic testing techniques. | Testing activities including multiple choice questions covering white-box and black-box testing, unit testing, integration testing, system testing, acceptance testing, and regression testing. Final exam. |  |
| Identify database connection methods. | Multiple choice questions covering connecting to various types of data stores such as flat file; XML file; in-memory object; and resource optimization. Final exam. |  |
| Compare and contrast applications made for different platforms including mobile devices. | Platform report |  |
| Compare and contrast C++ with other related languages. | Language report |  |

### SECTION II (must complete each item below)

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| --- | --- |
| If you intend to restrict student registration based on the students’ major(s), enter all applicable major restriction codes: | n/a |
| Is this an “International or Diversity Focus” course? | NO |
| Is this a General Education course? | NO |
| Is this a Writing Intensive course? | NO |
| Is this an Honors Course? | NO |
| Is this a Repeatable Course?\*(A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3-credit hour course, can be repeated 1 time and a student can earn a maximum of 6 credits.)\*not the same as Multiple Attempts or Grade Forgiveness If “Yes”, what is the maximum number of credits a student can earn for this course? If “No”, enter NA. | NOTYPE NUMBER HERE |
| Will these changes have an impact on other courses, programs, departments, or budgets? | NO |
| If “Yes”, please explain or submit comments below, if no enter NA |
| na |
| If “Yes”, have you discussed this proposal with anyone (from other departments, programs, or other institutions) regarding the impact? Were any agreements made?  |
| n/a |

### SECTION III (MUST COMPLETE EACH ITEM BELOW)

**PROVIDE JUSTIFICATION FOR EACH CHANGE ON THIS PROPOSED CURRICULUM ACTION (OTHER EXPLANATORY INFORMATION):**

SINCE CONSIDERABLE TIME HAS ELAPSED SINCE THE COMPUTER SCIENCE CURRICULUM HAS BEEN REVIEWED, THE FACULTY DETERMINED THAT THE COURSE DESCRIPTIONS AND STUDENT LEARNING OUTCOMES FOR ALL COMPUTER SCIENCE COURSES NEEDED TO BE EXAMINED AND UPDATED. ADDITIONALLY, THE AS NETWORKING DEGREE FRAMEWORK HAS BEEN CHANGED AT THE STATE LEVEL, SO THE FACULTY WISH TO ENSURE THE CURRICULUM MEETS THE NEW STANDARDS REQUIRED BY FLDOE.

**nOTE:**Changes for the Fall 2014Term must be submitted by the January 2014 deadline and approved no later than the February 2014 Curriculum Committee meeting prior to the start of the next academic year. Changes during mid-school year are NOT permitted. Extreme circumstances will require approval from the appropriate dean as well as the Vice President, Academic Affairs to begin in either the spring or summer term.

**TERM IN WHICH PROPOSED ACTION WILL TAKE PLACE:**

FALL 2014

na

**oRDER OF APPROVAL FOR EXCEPTIONS IS AS FOLLOWS:**

SIGNATURE #1 NEEDED FOR EFFECTIVE TERM EXCEPTION:

dean \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SIGNATURE #2 NEEDED FOR EFFECTIVE TERM EXCEPTION:

VICE PRESIDENT, ACADEMIC AFFAIRS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FACULTY ENDORSEMENTS:**PLEASE SEPARATE FACULTY MEMBERS WITH A COMMA



**DEPARTMENT CHAIR / PROGRAM COORDINATOR ENDORSEMENT:**

 12/12/2013

**DEAN ENDORSEMENT:**

 12/12/2013

**DEANS’ COUNCIL Representative:**

 2/18/2014

**FOR CURRICULUM COMMITTEE MEETING DATE: February 28, 2014**

Completed curriculum proposals must be uploaded to Dropbox by the deadline. Please refer to the *Curriculum Committee Critical Dates for Submission of Proposals* document available in the document manager in the MyEdisonState Portal:

* Document Manager
* VP Academic Affairs
* Curriculum Process Documents