Faculty members are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT.    CSCI       COURSE NUMBER:  2240

NUMBER OF CREDITS:  4       Lecture:  4       Lab:  0

Course Title:
Fundamentals of Programming I

Catalog Description:
Emphasizes concepts that provide a fundamental background for continued study in the area of computer science. Involves high-level language programming and the use of abstraction in program design.

FULFILLS MN TRANSFER CURRICULUM AREA(S)

Goal 1: Communication: ____ by meeting the following competencies:

Goal 2: Critical Thinking: ____ by meeting the following competencies:

Goal 3: Natural Sciences: ____ by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: ____ by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: ____ by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: ____ by meeting the following competencies:

Goal 7: Human Diversity: ____ by meeting the following competencies:

Goal 8: Global Perspective: ____ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: ____ by meeting the following competencies:

Goal 10: People and the Environment: ____ by meeting the following competencies:

Prerequisites or Necessary Entry Skills/Knowledge:
CSCI 1102
### Topics to be Covered

- Overview of languages
- C++ Basics
- Strings and I/O streams
- Selection control statements
- Loop control statements
- Functions
- Pointers, Enum, Structures
- Data file concepts
- One-dimensional arrays

### Student Learning Outcomes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Discuss programming languages.</td>
</tr>
<tr>
<td>b)</td>
<td>Enter, compile, and execute a C++ Basic program.</td>
</tr>
<tr>
<td>c)</td>
<td>Describe strings and I/O streams and control statements.</td>
</tr>
<tr>
<td>d)</td>
<td>Explain programming functions.</td>
</tr>
<tr>
<td>e)</td>
<td>Create simple Enum data types and employ pointers and structures.</td>
</tr>
<tr>
<td>f)</td>
<td>Compare sequential access and random access data files.</td>
</tr>
<tr>
<td>g)</td>
<td>Initialize and access elements of one-dimensional arrays.</td>
</tr>
</tbody>
</table>

### Is this course part of a transfer pathway:  

- Yes ☐  
- No ☒

Revised Date:  May 2020