Professional Science Master's in High Performance Computing

Type of Degree: Graduate

Title of Proposed program: Professional Science Master's in High Performance Computing

Degree and Abbreviations: PSM in High Performance Computing

Please designate a responsible department and individual for this proposal:

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I. Executive Summary  

Change of Array  

This PSM Program in High Performance Computing is requesting a change of array to reflect the addition of course numbers to courses that were previously articulated but not defined by course numbers or developed and approved through the CIM process.

The Steering Committee of PSM in HPC have recently approved a new sequence of courses, which were named in the original array but which are now submitted through CIM so that the program will have a defined array of courses to guide students through the curriculum and allow them to successfully complete the program.

**Figure 1: Comparison of Old and New array**

*Number of Credits Required Beyond the Baccalaureate: 30*

**Required Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MATH 5061</strong></td>
<td>Fundamentals of Computer Programming for Scientists and Engineers</td>
<td>4</td>
</tr>
<tr>
<td><strong>MATH 5066</strong></td>
<td>Mathematical Methods for High Performance Computing</td>
<td>6</td>
</tr>
<tr>
<td><strong>Math 5005</strong></td>
<td>Ethics Course</td>
<td>2</td>
</tr>
<tr>
<td><strong>Math 5003</strong></td>
<td>Professional Development Course</td>
<td>1</td>
</tr>
</tbody>
</table>
Electives 9 credits  (unchanged)

Total 30 credits

II. Impact on Faculty and Students The workload of faculty who will teach the new courses MATH 5062 and 5066 will be adjusted internally in the department. The Math course 5003 and 5005 will be cross listed with the Biology courses 5506 and 5511 respectively and permissions to do that have been received.

III. Impact on Resources There will be no change or impact on resources

IV. Assessment A formal assessment will be conducted after the new array of courses has run for one or two years.

V. Implementation Pending approval, the PSM in High Performance Computing Program is ready for the change of array starting Fall 2020.