Computational Science - Computational Engineering, P.S.M.
This major develops graduates that are technical experts in computational techniques used in various engineering disciplines. Graduates will lead efforts in the workplace to meet goals using data, quantitative techniques, and business analytics. A graduate’s professional and communication skills will allow her/him to serve as lead technical resource for collaboration between units in her/his organization.

Graduate Advisor: Dr. Evan Lemley
Email: elemley@uco.edu
Office: STEM 116D
Phone: (405) 974 - 5473

Admission Requirements
Submit the following items to:
Jackson College of Graduate Studies
100 N. University Drive, NUC 404
Edmond, OK 73034
• Online application for admission (www.uco.edu/graduate/).
• Official copies of undergraduate and graduate transcripts from each institution attended with all degrees posted. All transcripts must be from accredited institutions. Undergraduate transcripts must show: *
• Bachelor’s degree in any subject area. If not in an area of science, technology, engineering or mathematics, then applicant should demonstrate work or other experience that has prepared them for the PSM program.
• Undergraduate and graduate transcripts from all institutions attended that record a minimum overall GPA of 2.75 and a minimum of 3.00 in the last 60 hours.
• The GRE exam is not required, but a minimum combined verbal and quantitative score of 300 is recommended.
• Two letters of recommendation.
• Meet with the PSM program director to plan the curriculum and Integrative Project prior to enrollment in the first semester of study.
• Establish a professional social media presence (Linkedin.com for example) and link to the PSM program director.

*Students falling below these standards may qualify for conditional admission. See Admissions to Graduate Studies (p.13).

Note: Students must meet with faculty mentor/advisor in group or individual advisement session before enrolling.

Other Requirements
• Plan of Study. Each student must file a plan of study with his/her graduate program advisor and the Jackson College of Graduate Studies (JCGS) by the end of the first semester during which they complete their twelfth hour of graduate work. The plan must be signed and dated by the student and the graduate program advisor before it can be considered official.

Graduation Requirements
Required PSM Courses……………………………………12 Hours
Course Prefix Course No. Course Title
PSM 5013 Computational Science for Professionals I
PSM 5113 Computational Science for Professionals II
PSM 5681 Integrative Project I
PSM 5781 Integrative Project II
PSM 5881 Integrative Project III
PSM 5203 Introduction to Data Science

Required Management Courses…………………………7-8 Hours
Course Prefix Course No. Course Title
ISOM 5333 Project Management OR
MBA 5552 Project and Program Management
MBA 5033 Creative Problem Solving
MBA 5352 Managerial & Operational Analytics

Elective Business Course(s)…………………………….. 2-4 Hours
Choose 2-4 hours from the list below:
Course Prefix Course No. Course Title
MBA 5042 Managerial Economics
MBA 5142 Managerial Finance
MBA 5172 Managerial Accounting
MBA 5243 Leading People in Organizations
MBA 5572 Business Ethics & Sustainability
MBA 5642 Organizational Change & Innovation
MSBA 5232 Data Visualization
MSBA 5314 Applied Analytics

continued...
Program: Computational Science
Major: Computational Engineering

Guided Electives ......................................................... 9 Hours
Choose 9 hours from the list below:

<table>
<thead>
<tr>
<th>Course Prefix</th>
<th>Course No.</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGR</td>
<td>5023</td>
<td>Heat Transfer</td>
</tr>
<tr>
<td>ENGR</td>
<td>5103</td>
<td>Finite Element Analysis</td>
</tr>
<tr>
<td>BME</td>
<td>5223</td>
<td>Biomedical Imaging</td>
</tr>
<tr>
<td>BME</td>
<td>5233</td>
<td>Biomedical Instrumentation</td>
</tr>
<tr>
<td>ENGR</td>
<td>5323</td>
<td>Digital &amp; Analog Communication</td>
</tr>
<tr>
<td>ENGR</td>
<td>5333</td>
<td>Digital Signal Processing &amp; Laboratory</td>
</tr>
<tr>
<td>BME</td>
<td>5343</td>
<td>Biomechanics</td>
</tr>
<tr>
<td>ENGR</td>
<td>5443</td>
<td>Fluid Dynamics</td>
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<td>ENGR</td>
<td>5533</td>
<td>Thermal Systems Design</td>
</tr>
<tr>
<td>ENGR</td>
<td>5803</td>
<td>Mechatronics &amp; Laboratory</td>
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</table>

General Electives .................................................. 3 Hours
Choose 3 hours from the list below:

<table>
<thead>
<tr>
<th>Course Prefix</th>
<th>Course No.</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO</td>
<td>5xxx</td>
<td>Graduate BIO Course</td>
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<tr>
<td>BME</td>
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</tr>
<tr>
<td>CHEM</td>
<td>5xxx</td>
<td>Graduate CHEM Course</td>
</tr>
<tr>
<td>CMSC</td>
<td>5xxx</td>
<td>Graduate CMSC Course</td>
</tr>
<tr>
<td>ENGR</td>
<td>5xxx</td>
<td>Graduate ENGR Course</td>
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<tr>
<td>MATH</td>
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<td>Graduate MATH Course</td>
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<tr>
<td>PHY</td>
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<td>Graduate PHY Course</td>
</tr>
<tr>
<td>STAT</td>
<td>5xxx</td>
<td>Graduate STAT Course</td>
</tr>
</tbody>
</table>

TOTAL HOURS REQUIRED ............................................ 33-36 HOURS