Washington State University
MAJOR CHANGE FORM - - REQUIREMENTS
(Submit original signed form and TEN copies to the Registrar’s Office, zip 1035.)
See https://www.ronet.wsu.edu/ROPubs/Apps/HomePage.ASP for this form.

*Submit an additional copy to the Faculty Senate Office, French Administration 338, zip 1038.

Department Name School of Molecular Biosciences (SMB)

1. CHECK PROPOSED CHANGES.
   * X Change department/program name from M.S. in MBioS (PSM) to PSM in MBioS
   * X New degree or program in PSM in Molecular Biosciences
   *☐ Change name of degree from   to
   *☐ Drop degree or program in    
   *☐ Extend existing degree or program to ____________________________ campus
     ☐ New Major in ____________________________
     ☐ Change name of Major from ____________________________ to ____________________________
     ☐ Revise Major requirements in ____________________________
     ☐ Drop Major in ____________________________
     ☐ Revise certification requirements for the Major in ____________________________
     ☐ New Option in ____________________________
     ☐ Revise requirements for the Option in ____________________________
     ☐ Drop Option in ____________________________
     ☐ New Minor in ____________________________
     ☐ Revise Minor requirements in ____________________________
     ☐ Drop Minor in ____________________________
     ☐ New Undergraduate Certificate in ____________________________
     ☐ Revise Undergraduate Certificate requirements in ____________________________
     ☐ Drop Undergraduate Certificate in ____________________________
     ☐ Other ____________________________

Effective term/year Fall 2012 - Fall 2013

Norah McCabe 335-1134 nrmccabe@vetmed.wsu.edu

Contact Person Contact Phone No. Contact email

2. GIVE REASONS FOR EACH REQUEST MARKED ABOVE. (Attach additional paper if necessary; see reverse side.) See Attached

3. SIGN AND DATE APPROvals.
   Chair Signature/date  Dean Signature/date  General Education Com/date

   Catalog Subcom/date  Academic Affairs Com/date  Graduate Studies Com/date  Senate/Date
Washington State University
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☐ Drop degree or program in ___________________________
☒ Extend existing degree or program to ____________________________ campus

☐ New Major in ___________________________
☐ Change name of Major from ___________________________ to ___________________________
☐ Revise Major requirements in ___________________________
☐ Drop Major in ___________________________
☐ Revise certification requirements for the Major in ___________________________

☐ New Option in ___________________________
☐ Revise requirements for the Option in ___________________________
☐ Drop Option in ___________________________

☐ New Minor in ___________________________
☐ Revise Minor requirements in ___________________________
☐ Drop Minor in ___________________________

☐ New Undergraduate Certificate in ___________________________
☐ Revise Undergraduate Certificate requirements in ___________________________
☐ Drop Undergraduate Certificate in ___________________________
☐ Other ___________________________

Effective term/year Fall 2012

<p>| Norah McCabe | 335-1134 | <a href="mailto:nmccabe@vetmed.wsu.edu">nmccabe@vetmed.wsu.edu</a> |</p>
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4. SIGN AND DATE APPROVALS.

Chair Signature/date 2/29/12
Dean Signature/date 4/1/12
General Education Com/date

Catalog Subcom/date
Academic Affairs Com/date
Graduate Studies Com/date
Senate/Date
Washington State University

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☐ Revise requirements for the Option in _______
☐ Drop Option in _______

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☐ Revise Minor requirements in _______
☐ Drop Minor in _______

☐ New Undergraduate Certificate in _______
☐ Revise Undergraduate Certificate requirements in _______
☐ Drop Undergraduate Certificate in _______
☐ Other _______

Effective term/year Fall 2012

<table>
<thead>
<tr>
<th>Contact Person</th>
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<th>Contact email</th>
</tr>
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<tbody>
<tr>
<td>Norah McCabe</td>
<td>335-1134</td>
<td><a href="mailto:nrmccabe@vetmed.wsu.edu">nrmccabe@vetmed.wsu.edu</a></td>
</tr>
</tbody>
</table>

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4. SIGN AND DATE APPROVALS.

Chair Signature/date 3/7/12 Dean Signature/date 3/14/12 General Education Com/date

Catalog Subcom/date Academic Affairs Com/date Graduate Studies Com/date Senate/Date
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Effective term/year Fall 2012

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   Catalog Subcom/date  Academic Affairs Com/date  Graduate Studies Com/date  Senate/Date
To: Norah R. McCabe, Asst. Dean  
The Graduate School

From: John Ringo, Director  
Engineering and Technology Management

Date: March 5, 2012

Re: Degree Change for PSM in MBioS

I am pleased to lend support to the request for a name change by the School of Molecular Biosciences (SMB) that will establish a new degree title named “Professional Science Master’s in Molecular Biosciences”. The PSM program curriculum identifies coursework from the ETM program which we are glad to continue to provide just as we have for the previously named degree.

John ARingo

John Ringo, Director  
Engineering and Technology Management

.cc Candidis Claiborn, Dean  
College of Engineering and Architecture
Form 11 Moderate Degree Change Proposal Questionnaire

PART A  Fundamental Information Required for all Moderate Degree Change Proposals

1  Institution Name:  WASHINGTON STATE UNIVERSITY

2  Institutional Endorsement of Moderate Degree Change Proposal by Chief Academic Officer

   _________________________________________________________  ______________________________
   Endorsement by Chief Academic Officer (Signature)               Date

   Print Name and Title  Warrick M. Bayly, Ph.D., Provost and Executive Vice President for
   Academic Affairs

3  Contact Information (Academic Department Representative):

   Name:  McCabe, Norah R.
   Title:  Assistant Dean, The Graduate School; Director, PSM Program
   Address:  French Administration 324l, Pullman, WA 99164
   E-mail:  nrmccabe@vetmed.wsu.edu
   Telephone:  509-335-1134
   Fax:  509-335-1949

4  Degree Title Change:

   Current title (pre-change):  Master of Science, Molecular Biosciences- PSM option
   Proposed title (post-change):  Professional Science Master's in Molecular Biosciences
   Start date(s) for new degree(s):  Fall Semester 2012
   End date(s) for old degree(s):  Summer Session 2012

Note: the degree title consists of three elements: level, type, and major. For example, a BA in Psychology is a bachelor (level) of arts (type) degree in Psychology (major).

5  Type of Change Requested (Check One):

☒  Conversion of eligible options, specializations, or concentrations into degrees
☐  Consolidation of two or more eligible degrees into a single new degree
☐  Change in level of an eligible program's degree designation
☐  Other (describe):  

Note: "Other" changes need to be accompanied by a formal written exception request.
6  Rationale for Treatment of Change as a Moderate Degree Change

Why should the proposed degree change be categorized as a moderate degree change rather than a change requiring a full proposal for a new degree program?

This change has been approved by the School of Molecular Biosciences (SMB), which is the home department, The Graduate School and the Faculty Senate. The current program is in its second year of successful existence as an option within the Master's program offered by SMB, but current students are requesting the solid recognition that this is a Professional Science Master's (PSM) degree rather than an option. In addition, the current option has been recognized and accredited as a PSM by the Council of Graduate Schools (CGS) and is listed as such by the National Professional Science Master's Association (NPSMA). Finally, the program has been successful in obtaining funding from the Alfred P. Sloan Foundation, based upon its academic quality and rigor and the potential to secure additional external funding. The upgrade of the current program to a PSM degree, and the subsequent marketing as such is expected to result in enrollment growth to support the demand for such trained individuals by employers.

7  Accreditation

7a. What kind(s) of program-specific accreditation are available?

Accreditation/affiliation is available from the CGS and NPSMA, and as the current option has received this designation, the proposed upgrade to a PSM degree will likely also receive accreditation.

7b. What program-specific accreditation has been obtained or will be obtained, and when?

See 7A—we will seek accreditation/affiliation from CGS/NPSMA for the proposed changes.

(If program-specific accreditation is available but will not be obtained, explain.)

7c. How will the proposed program change affect program-specific accreditation?

(For example, will the program’s accreditation change? Will the program change allow the program to retain its existing accreditation?)

The program-specific accreditation will not change; however, the program will be designated a PSM degree.

8.  Other Basic Information

8a  Will the degree-granting unit change?

☐ Yes  ☒ No
If yes, what are the old and new degree-granting unit names?

If no, what is the ongoing name?

**School of Molecular Biosciences**

8b Will the CIP code change?

   Yes   ☒ No

If yes, identify old and new CIP code:

If no, identify ongoing CIP code:    **Biosciences: 26.0613**

8c Concentrations, options, or specializations

   ☐ Will not change

   ☒ Will change as follows:    **This program will now be a degree, not an option.**

8d Location(s) and mode(s) of delivery (check one):

   ☒ Will not change

   ☐ Will change as follows:    

**NOTE:** Changes in location or addition of distance delivery must be accompanied by a Location Notification of Intent (LNOI).

8e Scheduling (day, evening, weekend) and attendance options (full-time, part-time):

   ☒ Will not change

   ☐ Will change as follows:    

8f Have any of the programs involved in the change been involved in previous MDCPs?    
(Moderate Degree Change Proposals)

   If yes, which programs, which MDCPs, and when?

   ☐ Yes   ☒ No

9. Short Form Questions for Externally Mandated Changes

9a   ☐ Yes   ☒ No    The institution certifies that the proposed change is mandated by an external accrediting, licensing, or other regulatory authority and that the proposed change will not affect the program’s degree level, curriculum, or faculty, and will not have an adverse impact on any student’s
learning experience.

If yes, describe the mandate and state its effective date:

**Important instruction:**
If the answer to question #9a is yes, answer question 9a and skip the rest of the questionnaire, including #9b and all of Part B.

The intent here is to capture, as simply as possible, externally mandated changes requiring a stand-alone degree or new title, but not a change in degree level.

9b  ☐ Yes  ☒ No  (For changes in degree level only.) Is the change in degree level externally mandated?

**Important instruction:**
If the answer to question #9b is yes, then Part B question #10 is optional.
If the answer to question #9b is no, then Part B question #10 is required.
Part B questions #11-16 are required in both cases.

---

**PART B  Additional Information Required for Certain Proposals**

**Important instruction:**
For the sake of flexibility, the HECB will allow institutions the option of responding to Part B questions either by filling out the questionnaire completely, or by addressing the “yes or no” components of the Part B questions within the questionnaire form itself and addressing the other informational requirements by attaching a unified narrative response. If the institution chooses the unified narrative response approach, it must still submit Part B of the questionnaire, with answers to all “yes or no” questions clearly indicated.

For questions requiring more than just a “yes or no” answer, the institution may elaborate in an attached unified narrative response, rather than in the body of Part B of the questionnaire. All such narrative elaboration must be cross-referenced to specific questions in the questionnaire.

For example, an institution electing to use the unified narrative response approach would fill out question #14c by checking “yes” and making a cross-reference statement such as “See narrative, page 5, paragraphs one and two.”

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10  Rationale for Change

Provide a rationale for making the proposed change at the proposed time, including:

- An overview describing the proposed change (including what is changing and why).
- A history of relevant, existing, pre-change programs and a description of how they have evolved over time.
- A description of how the change will benefit students and employers in the changing workplace.
- A description of the community need for the proposed moderate degree change.
- A description of how the proposed change will align with or help implement the Statewide Strategic Master Plan for Higher Education.

The following presents a rationale for making the proposed changes to the Professional Science Master’s (PSM) program at the proposed time. Included is an overview of the change, a history of relevant programs, a description of the potential benefits of such a change, address of community need, and a description of the proposed change which is in alignment with the Statewide Strategic Master Plan for Higher Education.

The proposed change is the elevation of the current PSM option within the Masters’ programs in Molecular Biosciences to that of a Professional Science Master’s degree in Molecular Biosciences. This change moderately alters the program designation, and clarifies that the program is a Professional Science Master’s degree.

The existing PSM option in Molecular Biosciences offered both on the Pullman campus and via WSU online evolved from the Non-Thesis option within the existing MS Program in Molecular Biosciences. Employers and potential employers of science graduates nationwide have articulated a need for employees who are trained in interdisciplinary skills – i.e., trained in a science-specific discipline coupled with training in professional skills, including skills necessary for efficient and effective transition into the rapidly changing workplace. In addition, students who earn this degree will complete a workplace-based internship. All of these components are found in PSM degrees, which came to prominence in the United States in 1997. Since that time, PSM degrees have been designed, established, and accredited nationally and internationally, with discipline-specific courses in STEM fields. Currently there are over 250 PSM degrees offered at over 150 different institutions. These PSM programs support the training and retention of students in many different STEM career tracks, both traditional and non-traditional. In particular the development of PSMs has also expanded the employment and advancement opportunities for science graduates who wish to pursue non-academic and non-traditional STEM careers.

This degree change provides a significant benefit to present and future students and employers, in that a clearly-identified PSM degree assures potential employers of both the specificity and the breadth of training earned by the program graduates. Baccalaureate science graduates working in their fields are among the lowest-earning college graduates. They need the incentive and opportunity to further develop their undergraduate science training and utilize it for profitable employment with career advancement opportunities. In addition, the establishment of a PSM degree at WSU will allow access to increased funding opportunities generated by technical and professional training grants provided by such entities as the National Science Foundation, the Alfred P. Sloan foundation for example, and the Department of Labor. National interest is also demonstrated by Congressional action that has recently (2009) allocated $15 million to the National Science Foundation specifically for Science Master’s program development.

Finally, the proposed change will benefit the Washington Statewide Strategic Master Plan for Higher Education. The development of a PSM degree (the first in Washington State), aligns well with the economic, employment and commerce goals of the Plan with its commitment to supporting economic growth and progress throughout the state, in particular in reference to graduating more citizens with graduate degrees. Also, as the degree can be earned either
online or on-campus, accessibility for students place-bound by employment, family, or economics will be enhanced.
Projected Enrollment: Full Time Students only - Pullman

Year 1 (enter year here) 2012-2013  FTE: 10

Full Enrollment (year) 2014-2015  FTE: 15

12  Cost of the Change:

Start-up  $ 0  Explain: already established

Source:  $ 0  

$ 0  

$ 0  Other -

Explain:  

Ongoing  $ 0  Explain: already allocated – SMB, Sloan Grant

Source:  $ 0  

$ 0  

$ 0  Other -

Explain:  

NOTE: Report only those start-up and ongoing costs attributable to the change.

13  Evidence for Student and Employer Need

(Enrollment/graduation data for existing program(s) and other data, if appropriate)

13a  Name of Pre-Change Program  Master of Science in Molecular Biosciences, PSM option

(one table for each program involved; submit additional tables as attachments, as needed)
Table 13.1 Current Enrollment and Graduation History

<table>
<thead>
<tr>
<th>Year</th>
<th># of Qualified Applicants (if available)</th>
<th># of Admission Offers (if available)</th>
<th>Total Enrollment (Headcount)</th>
<th>Total Enrollment (FTE)</th>
<th># of Graduates (Headcount)</th>
<th>Job Placement Rate (if available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Year</td>
<td>2011-2012</td>
<td>17</td>
<td>12</td>
<td>17</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>1 Year Ago</td>
<td>2010-2011</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2 Years Ago</td>
<td>N/A*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Due to the flexibility in the program we accepted students into the program in Fall, Spring and Summer sessions through DDP.

Projected Enrollments Beginning Fall 2012

<table>
<thead>
<tr>
<th>Site</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pullman</td>
<td>(4+6)=10</td>
<td>(6+9)=15</td>
<td>(9+11)=20</td>
<td>(11+9)=20</td>
<td>(9+11)=20</td>
</tr>
<tr>
<td>DDP</td>
<td>(13+10)=23</td>
<td>(13+10+10)=33</td>
<td>(10+10+10)=30</td>
<td>(10+10+10)=30</td>
<td>(10+10+10)=30</td>
</tr>
<tr>
<td>Pullman</td>
<td>5</td>
<td>7.5</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>DDP</td>
<td>13.8</td>
<td>19.8</td>
<td>18.0</td>
<td>18.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Pullman</td>
<td>4</td>
<td>6</td>
<td>9</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>DDP</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Numbers in parentheses in headcount enrollments indicate continuing and new students. Pullman students will be Full Time- 2 year program. WSU Online students (DDP) will take 12 credits per year- 3 year program. ** ANNUAL AVERAGE FTE. For graduates, divide total annual credits by 2, then by 10 to get AAFTE.

13b What percentage of program graduates, on average, pursues higher degrees after graduation (if available)? N/A The PSM option is a terminal Master's program

13c What percentage of program graduates, on average, obtains employment appropriate to
their training (if available)? N/A  The current option is beginning its second year of enrollment. We have two graduates, two of whom are employed.

Provide other evidence of student and employer need, if appropriate (for example, if the data requested in 13a-13c may not be a good indicator of future need).

WSU online at WSU conducted a survey of WSU alumni (from academic years 1998-2007) to gauge interest in pursuing an online PSM degree. 182 respondents indicated an interest in a PSM degree offering, though no content or explanation of a PSM degree was presented in the survey. We believe, therefore, that the numbers were an underestimate of interest in a PSM program.

Subsequently an additional WSU survey of student interest in PSM degrees at WSU, was conducted in 2010 among WSU science undergraduates, graduates and alumni. This survey generated 300 responses that were enthusiastic about the establishment of Professional Science Master’s degrees at WSU. Furthermore, the response to the need for PSM degrees in disciplines specific to Molecular Biosciences, Environmental Sustainability and Bioproducts indicated a demand for different PSM degrees.

No other institution in the state of Washington offers a Professional Science Master’s (PSM) degree. Therefore such a degree offering will be the first of its kind in Washington state, and the first PSM in in Molecular Biosciences offered throughout the nation. Due to the flexibility in the program (with the possibility to earn the degree both on-campus (Pullman) and online (DDP) and either part-time or full-time, we accept students into the program in all semesters. In the second year of offering as of Spring 2012, there are 17 (4 Pullman and 13 online) students enrolled in the program. We predict that enrollment will grow to 33 students by Fall 2013 (10 Pullman and 23 online). Please see Tables below. This is based on Pullman students being full time and completing the program in 2 years and DDP students being part-time and completing the program in 3 years. Our predictions are very conservative and there is room for increased enrollment if the program grows beyond our forecast.

Data provided by the National Governor’s Association (NGA) Center for Best Practices, and the National Professional Science Master’s Association website http://www.npsma.org, identify Washington as one of four states undertaking “bold, comprehensive strategies to align postsecondary education with the state’s economic goals.” (2011). The data further identifies Washington State as having to import significant numbers of workers in science fields because of economic need that far outstrips the supply of science graduates from Washington State’s universities. Washington State University is utilizing this opportunity to answer the question being asked by governors and state policymakers: For what jobs are we preparing college graduates? What is the economic return on our investment in higher education? By providing the training opportunity obtained by earning this PSM degree we believe we are answering the call of aligning educational outcomes with employer needs. An integral part of obtaining accreditation/affiliation by the CGS as a PSM program requires input from an active employer based advisory board. Such an advisory board that makes recommendations on curriculum and course content is in place. Thus, the proposed upgrade of the current PSM option to a PSM degree at WSU will be part of the comprehensive strategy of state policymakers.
### Graduate Employment Outcomes – 2008 – Existing PSM Programs

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Industry</th>
<th>Government</th>
<th>Further Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioinformatics/Biotechnology</td>
<td>59%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Microbiology/Cell and Molecular Biology</td>
<td>25%</td>
<td>0%</td>
<td>25%</td>
</tr>
<tr>
<td>Financial Mathematics/Industrial Mathematics</td>
<td>71%</td>
<td>2%</td>
<td>10%</td>
</tr>
<tr>
<td>Applied Statistics/Computational Science</td>
<td>55%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Analytical Chemistry/Biochemistry/ Forensics</td>
<td>72%</td>
<td>22%</td>
<td>0%</td>
</tr>
<tr>
<td>Food Safety/Pharmacology and Toxicology</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Environmental and Geosciences</td>
<td>51%</td>
<td>28%</td>
<td>0%</td>
</tr>
<tr>
<td>Applied/Industrial Physics</td>
<td>56%</td>
<td>11%</td>
<td>22%</td>
</tr>
<tr>
<td>Health/Medical Physics</td>
<td>38%</td>
<td>16%</td>
<td>34%</td>
</tr>
<tr>
<td>Total PSM Average</td>
<td>55%</td>
<td>10%</td>
<td>14%</td>
</tr>
</tbody>
</table>

13e If the proposed change involves a degree level change that is not externally mandated, provide additional evidence for student and employer need for degrees at the post-change degree level. The additional evidence must be similar to that which would be provided in a full proposal for a new degree.

### Notes:

13.1 The data in item 13 is intended to serve as a proxy for the student and employer need data required in a full proposal for a new degree.

13.2 The year column in table 13.1 is for academic years.

### 14 Pre- to Post-Change Comparisons

14a Will the target student audience change?

- [ ] Yes  [x] No

If yes, compare and contrast the pre- and post-change target audience of students, noting any changes.
14b  Will the admission requirements change?

☐ Yes  ✗ No

If yes, compare and contrast the pre- and post-change admission requirements, noting any changes. Also, if pre-requisite courses are changing, list and describe the changes.

14c  Will the learning objectives change?

☐ Yes  ✗ No

If yes, compare and contrast the pre- and post-change learning objectives for students, noting any changes.

14d  Will the normal time to graduate change?

☐ Yes  ✗ No

If yes, summarize changes.

14e  Will the faculty change?

☐ Yes  ✗ No

If yes, provide a paragraph or two summarizing faculty changes. Include a summary of significant anticipated changes in faculty personnel. Include a summary of significant anticipated changes in faculty qualifications. For example, if a degree program is changing level from a baccalaureate to a master’s program, will the proposed new master’s program feature a higher level of full-time tenure-track faculty holding doctoral degrees than the baccalaureate program that it is replacing?
If the answer to 14e is yes, fill out the following program faculty table:

<table>
<thead>
<tr>
<th>Number of FTE Provided for Program(s) by:</th>
<th>Pre-Change # of FTE</th>
<th>Post-Change # of FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time Tenure-Track Faculty with Highest Degree at:</td>
<td></td>
<td></td>
</tr>
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<td>Doctoral Level</td>
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<td>Master's Level</td>
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<td>Other (describe other degrees or qualifications)</td>
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<td>Full-Time Non-Tenure-Track Faculty with Highest Degree at:</td>
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<td>Doctoral Level</td>
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<td>Other (describe other degrees or qualifications)</td>
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<td>Part-Time Faculty with Highest Degree at:</td>
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<td>Other (describe other degrees or qualifications)</td>
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<tr>
<td>Total FTE for program(s)</td>
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</tbody>
</table>

Description of other degrees or qualifications, if applicable:

Full-time tenure-track faculty

Full-time non-tenure-track faculty

Part-time faculty

14g Will the facilities change?

☐ Yes  ☒ No

If yes, summarize changes.

14h Will the curriculum change?

☒ Yes  ☐ No
If yes, provide a paragraph or two summarizing curriculum changes. Include total number of credits pre- and post-change, and specify how many credits pre- and post-change are required and elective.

Attach a table such as example table 14.2, in which a Developmental Psychology option within a BA Psychology degree is being converted to a BA in Developmental Psychology.

There will be minor changes to the curriculum associated with the required professional courses, which will increase from 3 courses to 5 courses.

<table>
<thead>
<tr>
<th>Table 14.2 Curriculum Changes</th>
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<tbody>
<tr>
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<tr>
<td>Pre-change</td>
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<tr>
<td>Entrp 486/501</td>
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<tr>
<td>MBios 580</td>
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<tr>
<td>Phil 530</td>
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</tbody>
</table>

Description of Courses:
Entrp 486/501 (3) Topics in New Venture Planning
EM 505 (3) Finance for Technical Systems
EM 508 (3) Legal Concepts for Engineering and Technical Managers
Mktg 506 (3) Marketing Management and Administrative Policy
MBios 580 (2) Science Information Literacy
Eng 595 (3) Communicating in STEM (New Course)
Phil 530 (2) Bioethics
Phil 532 (3) Seminar in Business Ethics
Phil 535 (3) Advances in Biomedical ethics
EM 501 (3) Management of Organizations
EM 564 (3) Project Management
EM 575 (3) Performance Management
MBios 568 (1) Professional Skills Seminar

In addition changes have been made to the number of science and professional course electives that are required. This is a reduction from 3 courses (at least 1 from the science group and 1 from the professional group) to 2 courses (1 from the science and 1 from the professional group).

These two changes will result in the minimum number of credits to earn the PSM degree increasing from 30 credits to 33 credits.
Briefly describe the internal analysis upon which the MDCP is based. Include:

- Dates of most recent program review and program-specific accreditation review.
- Indication of whether the analysis is based on a program review and/or program-specific accreditation review.
- Description of institutional personnel, committees, or other groups that have been involved with the change, and their roles.

Note: The analysis does not have to be based on program review or program-specific accreditation review, but if it is not, indicate what other information the analysis is based on.

The change is being requested based on student feedback and the advice from our employer-based advisory board (Every PSM program must have an active employer based advisory board). Current students are requesting that the current option be given its own PSM degree designation so that they can more accurately inform future employers as to their program of study and reference established PSM degree programs that exist throughout the country.

Attach a statement or report from an external expert from a peer institution or a program-specific accrediting body indicating whether the proposed changes:

- Would result in a program that:
  - Has an appropriate degree title and degree level.
  - Demonstrates a coherent design, with depth, breadth, and curriculum appropriate for the degree title and level.
  - (For conversions only) Makes sense as a separate major.
- Are consistent with trends in the field.
Are responsive to recent or anticipated changes in regulatory, licensing, or accreditation requirements.

Attach a statement or report from an external expert from a peer institution or a program-specific accrediting body indicating whether the proposed changes:

- Would result in a program that:
  - Has an appropriate degree title and degree level.
  - Demonstrates a coherent design, with depth, breadth, and curriculum appropriate for the degree title and level.
  - (For conversions only) Makes sense as a separate major.
- Are consistent with trends in the field.
- Are responsive to recent or anticipated changes in regulatory, licensing, or accreditation requirements.
- Attach a brief description of the external expert’s qualifications. The external expert must be selected in accordance with the same guidelines used in selecting external experts to review full proposals for a new degree program.

Based on the current accreditation of the existing option as a PSM by the National Professional Science Master's Association (NPSMA) which will continue for the degree program, WSU requests exemption from the external review statement.