Idaho State Board of Education
Proposal for Undergraduate/Graduate Degree Program

Date of Proposal Submission: October 5, 2016
Institution Submitting Proposal: University of Idaho
Name of College, School, or Division: College of Science
Name of Department(s) or Area(s): Department of Biological Sciences

Program Identification for Proposed New or Modified Program:

<table>
<thead>
<tr>
<th>Program Title:</th>
<th>Medical Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree:</td>
<td>BS</td>
</tr>
<tr>
<td>Degree Designation:</td>
<td>X Undergraduate Graduated</td>
</tr>
<tr>
<td>Indicate if Online Program:</td>
<td>Yes X No</td>
</tr>
<tr>
<td>CIP code (consult IR /Registrar):</td>
<td>51.1100</td>
</tr>
<tr>
<td>Proposed Starting Date:</td>
<td>Fall 2017</td>
</tr>
<tr>
<td>Geographical Delivery:</td>
<td>Location(s) Moscow Region(s) II</td>
</tr>
<tr>
<td>Indicate (X) if the program is/has:</td>
<td>Self-Support Professional Fee</td>
</tr>
<tr>
<td>Indicate (X) if the program is:</td>
<td>X Regional Responsibility Statewide Responsibility</td>
</tr>
</tbody>
</table>

Indicate whether this request is either of the following:

- [X] New Degree Program
- [ ] Consolidation of Existing Program
- [ ] Undergraduate/Graduate Certificates (30 credits or more)
- [ ] New Off-Campus Instructional Program
- [ ] Expansion of Existing Program
- [ ] Other (i.e., Contract Program/Collaborative

<table>
<thead>
<tr>
<th>College Dean (Institution)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice President for Research (Institution; as applicable)</td>
<td>Date</td>
</tr>
<tr>
<td>Graduate Dean or other official (Institution; as applicable)</td>
<td>Date</td>
</tr>
<tr>
<td>Academic Affairs Program Manager, OSBE</td>
<td>Date</td>
</tr>
<tr>
<td>FVP/Chief Fiscal Officer (Institution)</td>
<td>Date</td>
</tr>
<tr>
<td>Chief Academic Officer, OSBE</td>
<td>Date</td>
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<tr>
<td>Provost/VP for Instruction (Institution)</td>
<td>Date</td>
</tr>
<tr>
<td>SBOE/Executive Director Approval</td>
<td>Date</td>
</tr>
<tr>
<td>President</td>
<td>Date</td>
</tr>
</tbody>
</table>
Rationale for Creation or Modification of the Program

1. **Describe the request and give an overview of the changes that will result.** Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.

   This request is for a new undergraduate major, Medical Sciences, which would be administered by the Department of Biological Sciences at the University of Idaho. It has an interdisciplinary curriculum that will prepare students for admission to professional programs in a variety of healthcare related fields (e.g., medicine, dentistry, ophthalmology, pharmacology, etc.). It will also serve students who are interested in healthcare-related professions in areas such as writing, policy and administration. The Medical Sciences curriculum utilizes existing courses from across the campus to provide the breadth and depth necessary for future student success. This new major does not duplicate or replace any existing program within the state.

2. **Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.

   a. **Workforce need:** Provide verification of state workforce needs that will be met by this program. Include State and National Department of Labor research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation). Job openings should represent positions which require graduation from a program such as the one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

   List the job titles for which this degree is relevant:

   1. pre-med applicant (see below)
   2. pre-dent applicant (see below)

<table>
<thead>
<tr>
<th></th>
<th>State DOL data</th>
<th>Federal DOL data</th>
<th>Other data source: (describe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local (Service Area)</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Nation</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

   NA = not applicable
Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

In most instances this new major will not lead immediately to new jobs; that is, students graduating will not immediately enter wage-earning employment. This major is designed primarily to provide appropriate and necessary preparation for healthcare-related professional programs (e.g., medicine, dentistry, etc.) and secondarily to provide an enhanced STEM education that may be applicable to other professions. Most health professions require at least a 4-year program of study at the BA/BS level in order to apply for post-graduate training. The Medical Sciences major curriculum is tailored to meet the requirements of the healthcare profession and is designed to help students gain admission to the healthcare professional program of their choice. So, while it will not lead immediately to jobs in the local, state, or national workforce, it will ultimately add highly trained individuals to the workforce when these students complete their professional training. Note, that not all students that graduate from this major may choose to enter a professional program, but could use this education for other healthcare-related careers that may or may not require additional training beyond the BS (e.g., medical writer, healthcare administration, lawyer).

b. Student need. What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.). Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey of s was used, please attach a copy of the survey instrument with a summary of results as Appendix A.

The mostly likely student population would be new, incoming, full-time first-year (freshmen) students that have an interest in a future healthcare-related professional program. This would include, for example, students interested in medicine or dentistry, but would be suitable for students going into radiology, physician’s assistant, or medical technology. Currently, the university tracks students that are interested in pre-health studies through a Pre-Health Minor program or through pre-health advising; there are currently 136 such students enrolled. Therefore, considerable demand for this new major is anticipated.

c. Economic Need: Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

This new major would prepare students to be highly successful in healthcare and healthcare-related professions. The healthcare field is a well-paid sector of the employment world. Students, and those from Idaho (i.e., in-state) in particular, that choose to stay within the state after their professional program is completed would contribute significantly to Idaho’s economy.

d. Societal Need: Describe additional societal benefits and cultural benefits of the program.

The State of Idaho has a need for well-trained healthcare professionals. This new major would provide the opportunity to educate in-state students and make them more successful at gaining admission to and succeeding in health-related
professional programs. Students from Idaho are more likely to stay in the state after their training is complete and contribute to the societal needs of Idaho.

e. If Associate’s degree, transferability:

Not applicable (i.e., this is a 4-year BS degree).

3. Similar Programs. Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

<table>
<thead>
<tr>
<th>Institution Name</th>
<th>Degree name and Level</th>
<th>Program Name and brief description if warranted</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Idaho</td>
<td>BS Medical Sciences</td>
<td>4-year BS degree in Medical Sciences; fulfills requirements for many pre-professional programs (pre-med, pre-dental, pre PA etc.); highly interdisciplinary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institution Name</th>
<th>Degree name and Level</th>
<th>Program Name and brief description if warranted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington State University</td>
<td>Basic Medical Sciences major</td>
<td>Major that offers all the science needed to enter medical school or other health science schools.</td>
</tr>
<tr>
<td>Montana State University</td>
<td>Health &amp; Human Performance major</td>
<td>Major that prepares students for health-related graduate programs.</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>BioHealth Sciences major</td>
<td>Major for students that could enter health-science graduate fields.</td>
</tr>
</tbody>
</table>

4. Justification for Duplication with another institution listed above. (if applicable). If the
proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed program.

This new program is not offered by any other Idaho public institution. The BS in Health Sciences at ISU is the most similar program offered, but it does not target that same student population (e.g., pre-professional medical students). The ISU program has fewer requirements and utilizes a lower level chemistry and biology course sequence. We feel that the requirements of our proposed program will position students well to continue on into health care professions or professions related to health care.

5. **Describe how this request supports the institution’s vision and/or strategic plan.**

The University of Idaho is embarking on a new Strategic Plan that emphasizes transformative education and expanding the institution’s intellectual and economic impact. An objective of this plan is increased enrollment. A new major in Medical Sciences will add a new intellectual dimension to the university’s curricular offerings that we don’t currently support. In addition, this major, the first of its kind in Idaho, will attract students that want exceptional academic preparation for their future professional plans at an affordable cost (and not necessitate out-of-state enrollment).

6. **Assurance of Quality.** Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

The University will ensure the quality of the program through its three-step review process. All new curricula are evaluated and approved first by the sponsoring department (i.e., Department of Biological Sciences), second by a college-level Curriculum Committee (i.e., College of Science), and finally by a university-wide committee (i.e., University Curriculum Committee). There is no special accreditation required for this new major, however, all programs are assessed every 7 years as part of the external program review process, and as required by SBOE and NWCCU. Since the next program review for Biological Sciences is scheduled for fall 2017, and this new major begins at that time, the first assessment of this new major would occur at the time of the following program review.

7. **In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as Appendix B.

Not applicable.

8. **Teacher Education/Certification Programs** All Educator Preparation programs that lead to certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?
Yes_____ No___ X__
If yes, on what date was the Program Approval for Certification Request submitted to the Professional Standards Commission?

9. Five-Year Plan: Is the proposed program on your institution’s approved 5-year plan? Indicate below.

   Yes  X  No  ___

Proposed programs submitted to OSBE that are not on the five-year plan must respond to the following questions and meet at least one criterion listed below.

a. Describe why the proposed program is not on the institution’s five year plan. When did consideration of and planning for the new program begin?

b. Describe the immediacy of need for the program. What would be lost were the institution to delay the proposal for implementation of the new program until it fits within the five-year planning cycle? What would be gained by an early consideration?

Criteria. As appropriate, discuss the following:

i. How important is the program in meeting your institution’s regional or statewide program responsibilities? Describe whether the proposed program is in response to a specific industry need or workforce opportunity.

ii. Explain if the proposed program is reliant on external funding (grants, donations) with a deadline for acceptance of funding.

iii. Is there a contractual obligation or partnership opportunity to justify the program?

iv. Is the program request or program change in response to accreditation requirements or recommendations?

v. Is the program request or program change in response to recent changes to teacher certification/endorsement requirements?

Curriculum, Intended Learning Outcomes, and Assessment Plan

10. Curriculum for the proposed program and its delivery.

   a. Summary of requirements. Provide a summary of program requirements using the following table.

   | Credit hours in required courses offered by the department (s) offering the program. | 41 |
   | Credit hours in required courses offered by other departments: | 60 |
   | Credit hours in institutional general education curriculum | 10 |
   | Credit hours in free electives | 9 |
   | Total credit hours required for degree program: | 120 |

   b. Additional requirements. Describe additional requirements such as comprehensive
examination, senior thesis or other capstone experience, practicum, or internship, some of which may carry credit hours included in the list above.

There is a Senior Capstone (2-4 cr.) requirement for this major. There is also a Leadership and Professionalism (5-6 cr.) requirement that contains an internship (i.e., Biol 398) option.


   a. Intended Learning Outcomes. List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

   Graduates will be expected to:

   1. Demonstrate a strong knowledge base regarding biological, physical, health, and behavioral sciences as a foundation for admission to graduate level health / medical professional programs and future practice as healthcare professionals.
   2. Display strong skills in communication and collaboration, particularly interpersonal skills required for patient/provider and professional interaction.
   3. Demonstrate knowledge of professionalism and sound ethical standards.
   4. Describe the importance of cultural competency and appreciation for diversity in the community and healthcare environments.
   5. Identify and use professional/scientific literature and materials to support professional decision-making related to clinical practice and healthcare issues.
   6. Communicate through oral and written assignments the scholarly and analytical skills (critical thinking), as well as the innate curiosity, necessary to become lifelong learners.

12. Assessment plans

   a. Assessment Process. Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

   The assessment process will utilize the Intended Learning Outcomes described above as a framework. One course from the curriculum will be selected to provide data for each outcome. A rating scale of 1) above expectations, 2) meets expectations, or 3) below expectations will be used for evaluation. This information will be used to inform decisions on any curricular changes that need to be made.

   b. Closing the loop. How will you ensure that the assessment findings will be used to improve the program?

   The data collected on learning outcome performance is compiled and presented to the department faculty at a meeting dedicated for assessment review. Faculty discussion is utilized to make appropriate changes to courses that are not satisfactorily meeting learning objectives.
In addition, we will track admission to professional programs as a metric of our success.

c. **Measures used.** What direct and indirect measures will be used to assess student learning?

Direct measures of learning outcomes as measured by exam performance will be used.

d. **Timing and frequency.** When will assessment activities occur and at what frequency?

Assessment activities occur on an annual basis during the academic year. Reporting typically occurs at the beginning of fall semester.

### Enrollments and Graduates

13. **Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

<table>
<thead>
<tr>
<th>Institution and Program Name</th>
<th>Fall Headcount Enrollment in Program</th>
<th>Number of Graduates From Program (Summer, Fall, Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY_</td>
<td>FY_</td>
</tr>
<tr>
<td>BSU</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>ISU</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>UI</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>LCSC</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

NA = not applicable
14. **Projections for proposed program**: Using the chart below, provide projected enrollments and number of graduates for the proposed program:

<table>
<thead>
<tr>
<th>Program Name: BS Medical Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projected Program: Projected Enrollments and Graduates First Five Years</strong></td>
</tr>
<tr>
<td><strong>Projected Fall Term Headcount Enrollment in Program</strong></td>
</tr>
<tr>
<td>FY18 (first year)</td>
</tr>
<tr>
<td>50</td>
</tr>
</tbody>
</table>

15. **Describe the methodology for determining enrollment and graduation projections.**

Refer to information provided in Question #2 “Need” above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

The initial capacity for this program is 100 students, but it is unlikely that enrollment of this magnitude will be realized immediately. Combined with this thinking, it is anticipated that there will be a shift of freshman interest from other majors in Biological Sciences (i.e., Biochemistry, Biology, Molecular Biology, and Microbiology) to this new major in Medical Sciences. Since ~50% of current Biological Sciences majors have an interest in a healthcare profession (and current enrollment numbers of incoming freshman = ~100 students) we estimate that the FY18 headcount would be approximately 50 students. A 10% increase in subsequent years seems reasonable initially. An unknown, that we acknowledge, is the number of current students (2nd-4th year) that might switch major. This, however, would not markedly affect the total number of students in Biological Sciences (or other programs at the university), but could increase the numbers in the table above for the Medical Sciences major.

The recruitment efforts will be manifold. We are planning the following: an advertising campaign (mass media, brochure), new information through the department (website and faculty advisors), our Vandal Ambassador Program at high school recruiting events across the state, and dissemination through the UI Pre-Health Advisor.

Since the University of Idaho has a 55% graduation rate (previous five-year average) the projected number of graduates is based on this number. However, we expect the quality of students entering this major to be high and therefore predict that the graduation rate from this major will be above the university average (this has therefore been built into the projections indicated). We are projecting some graduates by the third year (i.e., FY20) of
the new major due to transfer students, but the first significant number of graduating students would occur in FY 21, due to the first freshman cohort entering in FY 18.

16. **Minimum Enrollments and Graduates.** Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical basis for those minimums, what is the time frame, and what is the action that would result?

The minimum for program continuance is 15 students. The basis for this minimum number is that it is similar to other viable majors in Biological Sciences (and other programs on campus).

**Resources Required for Implementation – fiscal impact and budget**

17. **Physical Resources.**

a. **Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

The physical resources currently in place at the University of Idaho Moscow campus will be used for the delivery of all the courses listed on the new curriculum.

b. **Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

In the short term, increased use of physical resources will not impact existing programs, because it is anticipated that most students will be shifting majors within Biological Sciences. A university-wide 20% increase in student enrollment is possible without affecting physical resources. This scope will easily accommodate the enrollment of this new major.

c. **Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

New resources needed in laboratory courses for increased enrollment will be met by the corresponding lab fees.

18. **Library resources**

a. **Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.
There are adequate existing library resources for this new major.

b. **Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

No new library resources are necessary for this new major.

19. **Personnel resources**

a. **Needed resources.** Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?

In the short term, no new personnel resources or course sections are necessary for this new major. However, should we experience large future enrollment there may be a need to increase the number of instructors, tenure-track faculty and teaching assistants will be needed to teach some courses.

b. **Existing resources.** Describe the existing instructional, support, and administrative resources that can be brought to bear to support the successful implementation of the program.

This new major uses courses currently existing in the University of Idaho catalog. Most of the required courses are already being taken by students who plan to apply to healthcare professional programs. In the case of elective courses, a selection has been developed in each category to avoid large increases in any specific course. Advising resources have already been identified for this new major, including college-level advising initially with a switch to departmental advising of more advanced students. Students will also work with the university-wide advisor for the health care professions.

c. **Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

It is anticipated that most enrollment in this new major will come from shifting majors within Biological Sciences, although some may come from other programs. Biological Sciences will monitor enrollment in its other majors over time and will make adjustments to majors as appropriate. It is anticipated that most pre-physical therapy students and pre-occupational therapy students will continue to major in Movement Sciences.

d. **Needed resources.** List the new personnel that must be hired to support the proposed program. Enter the costs of those personnel resources into the budget sheet.
No new personnel are required to support this proposed program unless and until the program results in a large increase in enrollment.

20. Revenue Sources

a) **Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

No reallocation of funds is required.

b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

No new appropriation is required.

c) **Non-ongoing sources:** Not applicable.

   i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution’s plans for sustaining the program when that funding ends?

   ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds?

d) **Student Fees:**

   i. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.

   There are no new institutional local fees.

   ii. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

   The total cost to students will be $7,232 for in-state and $22,040 for out-of-state (i.e., the same as other UI BS programs).

21. Using the [budget template](#) provided by the Office of the State Board of Education, provide the following information:

   - Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.

   - Include reallocation of existing personnel and resources and anticipated or requested new resources.
• Second and third year estimates should be in constant dollars.

• Amounts should reconcile subsequent pages where budget explanations are provided.

• If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).

• Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).