



Board of Regents

University System of Ohio

John R. Kasich, Governor

John Carey, Chancellor

Directions for submitting a request for approval of undergraduate degrees/degree programs

University System of Ohio (USO) institutions requesting approval from the Chancellor of the Ohio Board of Regents to deliver undergraduate programs are required to complete and submit the enclosed proposal as part of the approval process. If the institution has not already done so, it must submit an Initial Inquiry to begin the review process. Questions about the Initial Inquiry or the proposal template may be submitted to Matt Exline, assistant director for program development and approval, at (614) 728-3095 or mexline@regents.state.oh.us. Once the initial inquiry is received, an institutional mentor will be assigned to the institution to assist in the development and review of the request.

Depending on the nature of the request, the institution may be asked to submit additional information in the form of a **supplement or supplements** (e.g., online course offerings, off-campus locations, flexible delivery schedules etc.). The institutional mentor will assist the institution in determining what forms are needed to complete the review the process.

If the request also requires the approval of the Higher Learning Commission of the North Central Association of Colleges and Schools (HLC), or if the institution also intends to pursue programmatic/specialized accreditation for the request, the institution may submit materials prepared for HLC or the programmatic/specialized accrediting body in lieu of submitting this proposal and any applicable supplement forms.

If the institution is submitting a request for an **educator preparation program**, additional information will be requested to complete the review.

The institutional mentor will provide directions for submitting the request. Electronic submission of all review materials is preferred. The proposal itself must remain a Microsoft Word document. Appendix items should be clearly labeled and may be submitted as Microsoft Office documents (e.g., Word or Excel) or as PDF documents. If the electronic documents are too numerous or too cumbersome to email, you may copy them to a CD or "flash drive" and then mail the CD or flash drive to our office.

**REQUEST FOR APPROVAL
SUBMITTED BY:**

Wright State University

Undergraduate Major (Bachelor of Science) in Biochemistry and Molecular Biology

June 3rd, 2016

REQUEST

Date of submission: June 3rd, 2016

Name of institution: Wright State University

Degree/degree program title: Bachelor of Science in Biochemistry and Molecular Biology

Primary institutional contact for the request

Name: Chad Campbell

Title: instructor in Biochemistry and Molecular Biology

Phone number: 937-775-3432

E-mail: Chad.Campbell@wright.edu

Delivery sites: *(List all sites where the proposed program will be delivered)*

Main Campus: 3640 Colonel Glenn Hwy. Dayton, Ohio 45435

Date that the request was approved by the institution's governing board (e.g. Board of Trustees, Board of Directors): June 2nd, 2016

Proposed start date: August 29th, 2016

Institution's programs: *associate, bachelor's, master's, doctorate*

Educator Preparation Programs:

Indicate the program request leads to educator preparation licenses or endorsements.

Licensure **No**

Endorsement **No**



SECTION 1: INTRODUCTION

1.1 *Provide a brief summary of the request that will serve as an introduction for the reviewers.*

Wright State University herein applies for acceptance of a new undergraduate major in *Biochemistry and Molecular Biology* that will be housed in the department of Biochemistry and Molecular Biology (BMB). Currently WSU has a M.S. degree program in biochemistry and molecular biology, but no undergraduate major in this field. The BMB department composition includes 10 full-time faculty, two research faculty, and two Emeritus faculty, with plans to hire two additional full-time faculty in 2016. The core curriculum for this undergraduate program is founded on newly developed courses with a focus on active learning pedagogy. Design of the program has followed the recommendations of the American Society for Biochemistry and Molecular Biology (ASBMB), as we intent to seek accreditation from ASBMB in the near future. Such a program will strive to produce high-level graduates that are ready to enter the work force, or continue their education in graduate school either at Wright State University or elsewhere.

SECTION 2: ACCREDITATION

2.1 Regional accreditation

- *Original date of accreditation:* 07/26/1968
- *Date of last review:* September 11, 2006
- *Date of next review:* A peer review team visited our campuses on March 21–22, 2016. WSU will receive official notification regarding this reaffirmation in Summer 2016.

2.2 Results of the last accreditation review

- *Briefly describe the results of the institution's last accreditation review and submit the results (e.g., agency report, accreditation letters, requests for follow-up, etc.) as an appendix item.*

In 2006, WSU was granted a 10-year Reaffirmation of Accreditation with no contingencies. The Institutional Actions Council (IAC) voted, on August 28, 2006, to continue the accreditation of Wright State University, which was validated on September 11, 2006 by the validation process of the Commission Board of Trustees. See attached letter from the Executive Director, Higher Learning Commission (Appendix 1).

2.3 Notification of appropriate agencies

- *Provide a statement indicating that the appropriate agencies (e.g., regional accreditors, specialized accreditors, state agencies, etc.) have been notified of the institution's request for authorization of the new program. **Provide documentation of the notification as an appendix item.***

The Ohio Department of Higher Education (ODHE) has been informed of our intent to develop a new undergraduate major in Biochemistry and Molecular Biology via an *Initial Inquiry Form* (Appendix 2). Jane Fullerton was assigned as our institutional mentor; both she and Matt Exline have been consulted several times regarding the approval process.

Schedule of Notifications. This new BS Major in Biochemistry & Molecular Biology will be reviewed by the university Provost in late May 2016; then it will be forwarded to the Board of Trustees for their review and approval. This item is on the agenda for the Board of Trustees meeting scheduled for June 2,

2016. Following its approval by the WSU Board of Trustees, this ODHE document will be forwarded to Columbus by the Provost, and WSU will notify and seek approval from the HLC. We do not foresee any problems with the approval process within the university since this new BS degree program is similar to other undergraduate degree programs in STEM areas at WSU, with the exception of its focus in Biochemistry & Molecular Biology.

The American Society of Biochemistry and Molecular Biology has also been contacted in regards to our intention to seek accreditation; however, no official documentation exists since accreditation proceedings cannot begin until the start of the second year of the program.

SECTION 3: LEADERSHIP—INSTITUTION

3.1 Mission statement

- *Insert/describe the institution's mission statement.*

Wright State University's Mission Statement:

We transform the lives of our students and the communities we serve. We will:

- Build a solid foundation for student success at all levels through high-quality, innovative programs;
- Conduct scholarly research and creative endeavors that impact quality of life;
- Engage in meaningful community service;
- Drive the economic revitalization of our region and our state and empower all of our students, faculty, staff, and alumni to develop professionally, intellectually, and personally.

3.2 Organizational structure

- *Provide a copy of the institution's organizational chart as an appendix item.*

See Appendix 3

SECTION 4: ACADEMIC LEADERSHIP—PROGRAM

4.1 Organizational structure

- *Describe the organizational structure of the proposed program. In your response, indicate the unit that the program will be housed within and how that unit fits within the context of the overall institutional structure. Further, describe the reporting hierarchy of the administration, faculty, and staff for the proposed program.*

The undergraduate degree program will be administered through the Department of Biochemistry & Molecular Biology (BMB), which is a matrix department within the College of Science and Mathematics (CoSM) and the Boonshoft School of Medicine (BSOM). All schools/colleges within the university reside under auspices of the Office of the Provost. This undergraduate BS-degree program will be exclusive to the CoSM.

In addition to the department Chair, BMB also has a Vice-Chair for Research and a Vice-Chair for Education. These administrators meet on a regular basis to discuss departmental matters pertaining to space, personnel, research, education, and service. The chair and vice-chairs will also serve as an Oversight Committee for the BS program.

Day-to-day operations of the BS program will primarily be the responsibility of the Program Director (see below). An Oversight Committee, comprised of the chair and vice-chairs, will provide guidance and

address any problems. The Program Director will meet with the Oversight Committee at least 1-time per semester (or as needed) to provide an update of the program operations. Once per year, a student representative will be invited to attend this meeting to provide student input. The Program Director will also present a summary of the program activities (statistics, progress, and shortfalls) to the entire department faculty during the BMB Annual Faculty Retreat, which is held in summer. Any recommendations for changes in the program will be discussed with the full department faculty, either at the annual retreat or at a regularly scheduled faculty meeting during the academic year (as needed).

- *Provide the title of the lead administrator for the proposed program and a brief description of the individual's duties and responsibilities. Include this individual's CV/resume as an appendix item.*

Chad Campbell, Ph.D. (Instructor) will serve as the *Bachelor of Science Degree Program Director in Biochemistry & Molecular Biology*. His duties will include (1) design or assist in the development of new courses as needed; (2) teach in the program; (3) assess student evaluations, address student concerns, and construct a course of action for changes (improvements) when warranted; (4) initially strive to attain ASBMB program accreditation, and then maintain this accreditation; (5) work with faculty to optimize student research opportunities (help to match students with faculty laboratories); (6) serve as academic advisor for students; and (7) evaluate overall program outcomes through graduate questionnaires/surveys. Dr. Campbell's CV is attached (see Appendix 4).

- *Describe any councils, committees, or other organizations that support the development and maintenance of the proposed program. In your response, describe the individuals (by position) that comprise these entities, the terms of their appointment, and the frequency of their meetings.*

A Steering Committee for each BMB course in the BS-degree program will be comprised of the course participating faculty and the BS Program Director (Chad Campbell, Ph.D.), with oversight from the department Vice-Chair for Education. These committees will meet following completion of the corresponding course to review the course content, assessment methods, student performance, and student evaluations. The Steering Committee will make recommendations for changes or improvements to the full department faculty, which will be discussed at a regularly scheduled faculty meeting during the academic year or at the BMB Annual Faculty Retreat. If necessary, the Steering Committee will reconvene before the next start-date for the course to review any changes planned for implementation.

The Program Director in consultation with the Oversight Committee will generate two survey documents: (1) a Graduate Exit Evaluation and (2) a Post-graduate Survey. The Graduate Exit Evaluation will gather information from graduating students about their overall educational experience in the BS program. The Post-graduate Survey will be used to track students after graduation and generate a database of information about student's progress in their further education and/or careers. Information from these documents will be used to modify and make improvements to the program in accordance with student views.

Students can also participate in a national student-based organization through ASBMB, which provides membership into the society and connects students nationally and provides multiple benefits (see Section 6.2.1 for details). The BMB department will consider subsidizing the costs for student memberships in ASBMB.

4.2 Program development

- *Describe how the proposed program aligns with the institution's mission.*

The stated mission of Wright State University is: *To transform the lives of our students and the communities we serve by: (1) building a solid foundation for student success at all levels through high-quality, innovative programs; (2) conducting scholarly research and creative endeavors that impact quality of life; (3) engaging in meaningful community service; and (4) driving the economic revitalization of our region and our state and empower all of our students, faculty, staff, and alumni to develop professionally, intellectually, and personally.*

Our program aligns with all the mission points stated above. With regard to point #1, development of our program was guided by the standards set forth by the American Society for Biochemistry and Molecular Biology (ASBMB). In accordance with ASBMB guidelines, the courses in this program were developed using the principles of 'backwards design'. Additionally, the program focuses on student outcomes, using assessments and activities that align with those outcomes. Furthermore, the program is based on cutting-edge educational research, as the courses will incorporate active learning strategies, authentic research, and experiential learning. The program's home department (BMB) is actively engaged in biomedical research, which directly addresses points #2 and #3. Our program will offer students the opportunity to work in one of many research laboratories within the BMB department or other laboratories on campus. Most of this research is clinically relevant, and some involves translational research, all of which has potential health benefits and, as such, serves our community. WSU also offers many other service opportunities to students including the *Friendship Food Pantry*, the *Holiday Gift Drive*, *Project Linus*, and *Crayons to Classrooms*. Regarding point #4, our students will receive guidance for their professional career development throughout their time in the program, enhanced by a core course entitled *Careers in BMB*. This will provide students an opportunity to explore many possible careers in the state of Ohio and beyond.

- *Indicate whether the institution performed a needs assessment/market analysis to determine a need for the program. If so, briefly describe the results of those findings. If completed, submit the full analysis as an appendix item.*

In 2012-13, Hanover Research performed a market analysis study for prospective bachelor's and master's degrees in Biochemistry and Molecular Biology (BMB) at Wright State University. Their findings suggest that there is an increasing trend in BMB degree completions, both in Ohio and nationally. Furthermore, labor statistics indicate that national employment projections favor growth for occupations associated with BMB, and Ohio's labor market mirrors the national projection. Finally, the report indicates that Wright State's academic and research facilities are comparable to peer institutions that currently house BMB undergraduate programs. Such a program, however, does not exist within a 50-mile radius, and its availability at WSU will fill a void for the local region. See Appendix 5 for the full report.

- *Indicate whether the institution consulted with advisory groups, business and industry, or other experts in the development of the proposed program. If so, briefly describe the involvement of these groups in the development of the program.*

Not applicable

- *Indicate whether the proposed program was developed to align with the standards of a specialized or programmatic accreditation agency. If so, indicate whether the institution plans*

to pursue programmatic/specialized accreditation for the proposed program and provide a timeline for achieving such accreditation. If the program is already accredited, indicate the date that accreditation was achieved and provide information on the next required review.

Our undergraduate program was developed to align with the standards set forth by the American Society for Biochemistry and Molecular Biology (ASBMB), which offers accreditation to BMB programs (or similar) after a minimum of five graduating classes. These standards focus on core concept learning objectives, experiential learning, communication skills, teamwork skills and undergraduate research or internship opportunities. We have constructed our program on these principles, and it is our intention to apply for full accreditation once the program has attended the required number of graduating classes.

In the intervening timeframe (prior to eligibility for full accreditation), we intend to apply for provisional accreditation through ASBMB. Since provisional accreditation has a maximum duration of 6 years, we will apply in the third year of our program (academic year 2018-2019), with initiation in year four. This plan will ensure that there is no lapse between provisional and full accreditation status, such that all students graduate with an ASBMB accredited degree.

4.3 Collaboration with other Ohio institutions

- *Indicate whether any USO institutions within a thirty-mile radius of your institution offers the proposed program. If so, list the institutions that offer the proposed program and provide a rationale for offering an additional program at this site.*
- *Indicate whether the proposed program was developed in collaboration with another institution in Ohio. If so, briefly describe the involvement of each institution in the development of this request and the delivery of the program.*

Not Applicable

SECTION 5: STUDENT SERVICES

5.1 Admissions policies and procedures

Describe the admissions requirements for the program. In your response, highlight any differences between the admission requirements for the program and for the institution as a whole.

Students Direct from High School (HS). Requirements for direct admission into the BMB Bachelor of Science degree program will require a minimum high school GPA of 3.0, a math score minimum of 22 on the ACT or 520 on the SAT, and an English score minimum of 23 on the ACT or 530 on the SAT. In addition, students must have completed the Ohio Core Curriculum, or equivalent core curriculum from other states. These requirements are more stringent than those set by the university as a whole, which requires a minimum cumulative high school GPA of 2.5, or a 2.0 GPA with a minimum composite ACT score of 15 or combined critical reading and math SAT score of 740. The university also has set criteria for admission of students who have graduated from a state-accredited high school but have not completed the Ohio Core Curriculum.

Students who have been admitted into the university (not the BMB BS degree program) and wish to apply to our program must complete BIO 1120, BIO 1150, CHM 1210, and CHM 1220 with their associated labs, and attain a minimum cumulative GPA of 3.0 in these courses.

Students Applying Two or More Years After HS Graduation. Here our admission policy will follow that set by the university, which requires graduation from an accredited HS or an earned GED and minimum high school GPA of 2.0 or its equivalent. Students with a lower GPA or deficiencies from the college preparatory curriculum may be granted conditional admission.

Non-Degree Students. Non-degree students are admitted on a per-course basis. Non-degree students must affirm that they have a HS diploma or GED and are in good academic standing (i.e., a GPA of 2.0 in college courses completed, and they have not been denied admittance to Wright State University).

International Students. Here our admission policy will follow that set by the university, which requires proficiency in English demonstrated by achieving a score of 61 or above on the TOEFL-IBT exam, a band score of 5.5 with no sub-score lower than 5 on the International English Language Testing System (IELTS), or a minimum score of 51 on the Pearson Test of English (PTE). Students who enter the LEAP program and earn the LEAP Substitution are exempt from the requirement to take the TOEFL or IELTS. The above three instruments and the LEAP Substitution are the only proofs of proficiency accepted.

All international students for whom English is a second language and who have not completed a first year writing course accepted as the equivalent of ENG 1100 must take a university administered English writing placement test upon admission or during the first semester of enrollment. The results of this test will be used to place students in the appropriate basic ESL writing course and/or ESL section or ENG 1100.

- *Describe the transfer credit policies for the proposed program, including the use of credit transfer review committees and the maximum number of hours that can be transferred into the program. In your response, specifically address the credit that may be transferred*
 - *according to the Board of Regents' Transfer Assurance Guide (TAG) and Career Technical Credit Transfer (CT²) initiatives; and*
 - *other types of transfer credit awarded toward major program requirements (e.g., AP, life experience, CLEP, portfolio, etc.).*

Transfer Students and Transfer Courses. Transfer students are admitted based on their college-level work reviewed by the CoSM and the Department of Biochemistry & Molecular Biology. A departmental Transfer Review Committee, consisting of the Undergraduate BS Program Director plus one additional departmental faculty (appointed by the chair), will review each transfer student's credential (transcripts, etc.) on a case-by-case basis. Courses considered for transfer credit will be evaluated through review of the syllabi and prerequisites. Generally, an introductory-level biochemistry courses at a community college, or those listed as a first- or second-level course at another institution, is not accepted as an advanced course in our curriculum (3000 or 4000 level). Typically, such courses may transfer as a substitute for BMB 2100.

Wright State University has several articulation (transfer) agreements with area community colleges and high schools. Information can be found at <http://www.wright.edu/transfer/academics/articulation-transfer-agreements>. The university also accepts credits from colleges and universities that are regionally accredited. See <http://www.wright.edu/transfer/academics/transfer-credit>. A list of courses available for TAG credit in our program is provided below.

ENG 1100	CHM 1220	MTH 2310
BIO 1120	MTH 1280	PHY 2400
BIO 1150	MTH 1350	STT 2640
CHM 1210	MTH 2300	

5.2 Student administrative services

- *Indicate whether the student administrative services (e.g., admissions, financial aid, registrar, etc.) currently available at the institution are adequate to support the program. If new or expanded services will be needed, describe the need and provide a timeline for acquiring/implementing such services.*

See Below

5.3 Student academic services

- *Indicate whether the student academic services (e.g., career services, counseling, tutoring, ADA, etc.) currently available at the institution are adequate to support the program. If new or expanded services will be needed, describe the need and provide a timeline for acquiring/implementing such services.*

Response for 5.2 and 5.3. WSU has exceptional student service to adequately support this new BS program. The broad array of services and related information can be found on-line and will not be reiterated here in detail.

Student Services related to registration, records, financial aid and payment is managed by Raider Connect: <https://www.wright.edu/raider-connect>. The Raider-Connect website is constantly updated and is expanding to provide additional information and services to students.

Academic Services in University College provide many services, which are listed at <http://www.wright.edu/university-college/academic-help>.

The Career Center is managed through the division of Student Affairs: <https://www.wright.edu/career-center>. They provide assistance on resume writing, practice job interviews, job fairs and on-campus interviews with employers.

Counseling and Wellness, also in the division of Student Affairs, provides many services: <https://www.wright.edu/counseling-and-wellness/services>. WSU also offers outstanding Disability Services: <https://www.wright.edu/disability-services>

SECTION 6: CURRICULUM**6.1 Introduction**

- *Provide a brief description of the proposed program as it would appear in the institution's catalog.*

The Wright State University Course Catalog can be found at:

<http://catalog.wright.edu/content.php?catoid=2&navoid=88>

The Bachelor of Science degree from the Department of Biochemistry and Molecular Biology prepares students for careers in fields including, but not limited to, medicine and health, drug

manufacturing and design, agriculture, forensic science (crime lab science), academic research and scientific writing.

The teaching and research programs of the department are conducted in modern, well-equipped classrooms and laboratories. The curriculum fosters the development of teamwork, critical thinking, scientific reasoning and communication skills, as well as relevant content knowledge in both biochemistry and molecular biology. Active learning is a primary pedagogy used throughout the curricula design, which also affords students many opportunities to participate in cutting-edge research through independent studies and undergraduate laboratory research projects.

6.2 Program goals and objectives

- *Describe the goals and objectives of the proposed program. In your response, indicate how these are operationalized in the curriculum.*

The goals and objectives are multidimensional as outlined below.

1. The major will prepare students for careers in various biological fields through the use of cutting edge science education pedagogies endorsed by a third party accreditation agency (ASBMB).

Many of the courses within the major will incorporate nontraditional pedagogies including flipped classrooms, team-based learning, problem-based learning, and automated response systems. The laboratory course will incorporate experiential learning through authentic laboratory research experiences. Each course was developed using backwards design to ensure that student objectives are met and that our assessments reflect those objectives. The ASBMB has published many papers and held workshops to promote all the active learning strategies we intend to use, and to teach curriculum designers about the backwards design methodology.

Our program will also use resources available from ASBMB to advise students about the opportunities and career pathways available in the field of biochemistry and molecular biology. ASBMB also provides student organizations that connect nationally and provide additional benefits including: (1) membership to ASBMB; (2) free online subscriptions to the Journal of Biological Chemistry, Molecular & Cellular Proteomics, and the Journal of Lipid Research; (3) free subscription to the society monthly magazine, ASBMB Today; (4) eligibility for \$500 travel awards to attend the ASBMB annual meeting and Undergraduate Poster Competition; (5) exclusive awards and scholarships, including possible election into the ASBMB Honor Society; and (6) the Summer Research Database, which connects students to faculty nationwide seeking summer researchers.

2. The BMB major will serve as a boutique program for accelerated students who seek more individualized attention than would be possible at other Ohio public institutions with much larger programs. Our selective admission requirements will attract high-quality students, while keeping the program at a manageable size to better focus our attention on meeting the individual needs of our students. This strategy complements our university, which is smaller than most nearby Ohio public institutions offering similar programs.
3. The BMB major will serve as a seed program for our BMB Master's degree program, preparing students to transition seamlessly into graduate education. The majority of our department faculty are tenured or tenure-track research faculty, who continually seek well qualified graduate students to work in their labs. A significant portion of the students'

undergraduate coursework will enable students to become familiar with faculty research projects. This major will provide a new source of students to our department research programs, as we plan to foster undergraduate research for those students who show the greatest potential. Students who engage in undergraduate research, and elect to matriculate in our BMB Master's degree program, may not require a laboratory rotation for their lab selection process. This timesaving process will enable these students to focus on their research with increased productivity. Thus this will provide opportunity for additional laboratory experience and the potential for more research publications.

4. The BMB major will serve as an alternative, more focused option, for those pursuing Medical degrees. The course content of biochemistry and molecular biology is more closely related to that of the medical school curriculum than that offered through a degree in biology or chemistry. Indeed, recent studies have shown that student performance in biochemistry courses is a positive indicator for success in medical school. Thus the BMB major will be very attractive to premedical students. This major will improve the students' chances for a successful medical school application, and will make them better prepared for the medical school curriculum.

6.3 Course offerings/descriptions

- Complete the following table to indicate the courses that comprise the program. Please list courses in groups by type (e.g., major/core/technical, general education, elective) and indicate if they are new or existing courses.

Course (name/number)	No. of credit hours (q/s)	Major/ Core/ Technical	General Education	Elective	OTM, TAG or CT ² equivalent course	New/Existing Course
BMB 1000: Freshman Seminar	0.5s	X				New
BMB 1010: Topics in BMB	0.5s	x				New
BMB 2000: Careers in BMB	1s	x				New
BMB 2100: Introduction to Biochemistry	2s	x				New
BMB 3030: Research Ethics	1s	x				Existing
BMB 3850: BMB Lab	3s	x				New
BMB 3900: Scientific Communications	2s	x				New
BMB 4000:	1s	x				Existing

BMB Seminar with Advanced Researchers						
BMB 4020: Research Perspectives	1s	x				Existing
BMB 4100: Senior Reflection	1s	x				New
BMB 4210: Biochemistry and Molecular Biology I	3s	x				Existing
BMB 4230: Biochemistry and Molecular Biology II	3s	x				Existing
BMB 4870: BMB Seminar with Developing Researchers	1s	x				Existing
BMB 4010: Selected Topics in BMB	0.5-5s			x		New
BMB 4880: Independent Reading in BMB	1-5s			x		Existing
BMB 4950: Honors Research in BMB	1-10s			x		Existing
BMB 4990: Undergraduate Research	1-15s			x		Existing

*Provide a brief description of each course in the proposed program as it would appear in the course catalog. In your response, include the name and number of the course. **Submit course syllabi as appendix items (Appendix 6).***

NOTE: The WSU Student Handbook can be found at: <https://www.wright.edu/student-support-services/student-handbook>

BMB 1000: Freshman Seminar in Biochemistry and Molecular Biology

Introduction to BMB faculty and the facilities at WSU. Development of a learning portfolio to facilitate student growth and development and BMB program success. Introduction to the scientific practices encompassed in the Next Generation Science Standards (NGSS).

BMB 1010: Topics in Biochemistry and Molecular Biology

Topics will vary. Current media coverage of biochemistry and molecular biology related events, popular literature, or other special interest topics related to biochemistry and molecular biology.

BMB 2000: Careers in Biochemistry and Molecular Biology

Students will be exposed to multiple future career pathways available in BMB upon completion of their B.S. degree.

BMB 2100: Introduction to Biochemistry

Basic concepts in Biochemistry.

BMB 3030: Research Ethics

Ethical dilemmas present in scientific research including discussion of various real-life scenarios.

BMB 3850: Biochemistry Lab

Laboratory methodologies such as chromatography, electrophoresis, purification and characterization of enzymes, culminating in guided research projects. This course is writing intensive.

BMB 3900: Scientific Communication

Reading, comprehending, and generating scientific literature in Biochemistry and Molecular Biology.

BMB 4000: Biochemistry and Molecular Biology Seminar

Students will attend, evaluate and summarize selected lectures given by experienced researchers.

BMB 4020: Research Perspectives

Acquaints new graduate students with the research being carried out by faculty in the Biochemistry and Molecular Biology program.

BMB 4100: Senior Reflection

Preparing students to enter the workforce. Reflections on the BMB program and courses. Self-evaluations and a culminating senior project.

BMB 4210: Biochemistry and Molecular Biology I

Basic principles of biochemistry and molecular biology of the cells at the molecular level. Emphasizes experimental procedures used to generate current understanding of the biochemistry of proteins, enzymes and nucleic acids.

BMB 4230: Biochemistry and Molecular Biology II

Biosynthetic and biodegradative metabolism with emphasis on the molecular events leading to the regulation of metabolism. Covers the chemistry which enables cells to generate energy for life-sustaining processes and the role of biological membranes in this process. Includes control and regulation of metabolic processes at the molecular level.

BMB 4870: Biochemistry and Molecular Biology Seminar with Developing Researchers

Students will attend graduate students' presentations.

BMB 4010: Selected Topics in Biochemistry and Molecular Biology

Review of current literature or current research techniques in Biochemistry and Molecular Biology.

BMB 4880: Independent Reading in Biochemistry and Molecular Biology

Review of current literature in Biochemistry and Molecular Biology.

BMB 4950: Honors Research in Biochemistry

Research experience in a biochemistry and molecular biology laboratory.

BMB 4990: Undergraduate Research

Biochemical and/or molecular biological research in a faculty member's laboratory.

6.4 Program sequence

Provide the intended/ideal sequence to complete the program in the table below. An example is provided. Add additional time periods as needed.

Time period	Curriculum component	Time period	Curriculum component
<i>e.g., Year 1 Fall Semester</i>	Courses/Activities	<i>e.g., Year 1 Spring Semester</i>	Courses/Activities
Year 1 Fall Semester	Bio 1120/L: Cells and Genes	Year 1 Spring Semester	Bio 1150/L: Organisms and Ecosystems
Year 1 Fall Semester	CHM 1210/L/R: General Chemistry I	Year 1 Spring Semester	CHM 1220/L/R: General Chemistry II
Year 1 Fall Semester	General Elective 1	Year 1 Spring Semester	ENG 2130: Research Writing and Argumentation
Year 1 Fall Semester	ENG 1100: Academic Reading and Writing	Year 1 Spring Semester	BMB 1000: Topics in BMB
Year 1 Fall Semester	BMB 1000: Freshman Seminar	Year 1 Spring Semester	General Elective 2
Time period	Curriculum component	Time period	Curriculum component
<i>e.g., Year 2 Fall Semester</i>	Courses/Activities	<i>e.g., Year 2 Spring Semester</i>	Courses/Activities
Year 2 Fall Semester	CHM 2110/L/R: Organic Chemistry I	Year 2 Spring Semester	CHM 2120/L/R: Organic Chemistry II
Year 2 Fall Semester	MTH 2300: Calculus I	Year 2 Spring Semester	MTH 2310: Calculus II
Year 2 Fall Semester	Bio 2110: Principles of Molecular and Classical Genetics	Year 2 Spring Semester	STT 2640: Elementary Statistics
Year 2 Fall Semester	Bio 2130/R: Introduction to Molecular Biology Lab	Year 2 Spring Semester	BMB 3030: Research Ethics
Year 2 Fall Semester	BMB 2000: Careers in BMB	Year 2 Spring Semester	BMB 2100: Introduction to Biochemistry
Time period	Curriculum component	Time period	Curriculum component
<i>e.g., Year 3 Fall Semester</i>	Courses/Activities	<i>e.g., Year 3 Spring Semester</i>	Courses/Activities
Year 3	BMB 4210: Biochemistry and	Year 3	BMB 4230: Biochemistry and

Fall Semester	Molecular Biology I	Spring Semester	Molecular Biology II
Year 3 Fall Semester	BMB 3850: Biochemistry Lab	Year 3 Spring Semester	PHY 2400/L/R: General Physics II
Year 3 Fall Semester	PHY 2400/L/R: General Physics I	Year 3 Spring Semester	Core Element 3: History or Global Studies -1
Year 3 Fall Semester	BMB 4020: Research Perspectives	Year 3 Spring Semester	BMB 3900: Scientific Communication
Year 3 Fall Semester	BMB Elective 1	Year 3 Spring Semester	Core Element 4: Arts and Humanities
Time period	Curriculum component	Time period	Curriculum component
<i>e.g., Year 4 Fall Semester</i>	Courses/Activities	<i>e.g., Year 4 Spring Semester</i>	Courses/Activities
Year 4 Fall Semester	BMB 4100: Senior Reflection	Year 4 Spring Semester	BMB 4870: Seminar w/ developing researchers
Year 4 Fall Semester	BMB 4000: Advanced Seminar	Year 4 Spring Semester	BMB 4000: Advanced Seminar
Year 4 Fall Semester	Core element 5-2	Year 4 Spring Semester	BMB elective 3
Year 4 Fall Semester	BMB elective 2	Year 4 Spring Semester	Core element 5-1
Year 4 Fall Semester	nonBMB Science elective 1	Year 4 Spring Semester	nonBMB Science elective 3
Year 4 Fall Semester	nonBMB Science elective 2	Year 4 Spring Semester	Core Element 3: History or Global Studies -2

6.5 Alternative delivery options (please check all that apply): Not Applicable

- ☐ More than 50% of the program will be offered using a fully online delivery model
- ☐ More than 50% of the program will be offered using a hybrid/blended delivery model
- ☐ More than 50% of the program will be offered using a flexible or accelerated delivery model

For the purposes of this document, the following definitions are used:

- an **online course** is one in which most (80+%) of the content is delivered online, typically without face-to-face meetings;
- a **hybrid/blended course** is one that blends online and face-to-face delivery, with substantial content delivered online;
- a **flexible or accelerated program** includes courses that do not meet during the institution's regular academic term as well as courses that meet during the regular academic term but are offered in a substantially different manner than a fixed number of meeting times per week for all the weeks of the term.

6.6 Off-site program components (please check all that apply): Not Applicable

- ☐ Co-op/Internship/Externship
- ☐ Field Placement
- ☐ Student Teaching
- ☐ Clinical Practicum
- ☐ Other

SECTION 7: ASSESSMENT AND EVALUATION

7.1 Program assessment

- *Describe the policies and procedures in place to assess and evaluate the proposed program. In your response, include the following:*
 - *Name of the unit/position responsible for directing assessment efforts;*
 - *Description of any committees or groups that assist the unit;*
 - *Description of the measurements used;*
 - *Frequency of data collection;*
 - *Frequency of data sharing; and*
 - *How the results are used to inform the institution and the program.*

The proposed program will be evaluated at many different levels including: (1) independent program level assessments such as the PULSE Vision and Change rubric, and the STEM department evaluation rubric; (2) third party accreditation by ASBMB; and (3) course level evaluations such as the SALG (student assessment of learning gains). We will also track the success of our students during their enrollment in the program *via* the use of student portfolios, their DFW rate (Drop/Fail/Withdraw), and program completion rates. Additionally, we will track students' post-graduation progress through annual surveys to assess their educational and career trajectories.

Program assessment efforts will be the responsibility of the undergraduate program director. At the completion of each academic year, a summary report will be provided to the oversight committee, and data will be presented to the entire department faculty at the annual faculty retreat (summer). Recommendations from the faculty will be used to implement changes when necessary.

Course level evaluations will be the responsibility of the course director. Course directors will submit a report to the program director following the completion of the course. The BMB office staff will assist in gathering information from alumni. This information, together with student success measurements (see below) will all be included in the Program Director's annual summary report.

The information will help to assess whether or not the program is meeting its goals. In the case of the rubric style assessment, plans will be developed to achieve higher levels on the rubric where progress is lacking. ASBMB accreditation efforts will identify program deficiencies and make suggestions for improvements. Students and alumni tracking will help to evaluate how well the program is serving our students and preparing them for furthering their education and careers. This information will help to streamline the program and better prepare students in the future.

7.2 Measuring student success

- *Describe the policies and procedures in place to measure individual student success in the proposed program. In your response, include the following:*
 - *Name of the unit/position responsible for directing these efforts;*
 - *Description of any committees or groups that assist the unit;*
 - *Description of the measurements used;*
 - *Frequency of data collection;*
 - *Frequency of data sharing;*
 - *How the results are used to inform the student as they progress through the program; and*
 - *Initiatives used to track student success after program completion.*

Individual student success measurements will be gathered continuously throughout the program and coordinated by the Program Director. The main evaluative measurement tool will be the student portfolios, which are initiated in year 1 and continuously updated throughout all four years of the program.

In the students' first year they will be given several content level assessments such as the general, organic and biological chemistry knowledge assessment (GOB-CKA) and the enzyme substrate interactions concept inventory (ESICI). This will provide an assessment about their base level of knowledge. These same assessments will then be given in subsequent years to track their progress in these areas. Student portfolios will also include writing samples, metacognitive essays, four-year plans, records of significant achievements, career goals, and exit interviews.

Students will meet with the program director at least one-time per semester to discuss their progress. Together, these assessment measurements evaluate student learning and also serve as an indicator of the program's overall success. As mentioned above, student DFW rates, program completion rates, and information from student tracking after graduation will also be used as a measure of individual student success, as well as program performance.

SECTION 8: FACULTY

8.1 Faculty appointment policies

- *Describe the faculty designations available (e.g., professor, associate professor, adjunct, instructor, clinical, etc.) for the proposed program's faculty. In your response, define/describe the differences between the designations.*

Faculty composition in the Department of Biochemistry & Molecular Biology comprise the following ranks: Instructor, Assistant Professor, Associate Professor, and Professor. The department also has non-tenure track Research Faculty who do not have teaching responsibilities, but who do mentor students in laboratory research. Research Faculty positions also include ranks of Assistant Research Professor, Associate Research Professor, and Research Professor.

BMB is a "matrix department" under the auspices of the College of Science & Mathematics (CoSM) and Boonshoft School of Medicine (BSOM) (refer to Section 4.1). Those faculty with appointments in the CoSM are tenured or tenure-track (Instructors and Lecturers excluded), and are members of the American Association of University Professors (AAUP) and belong to the Collective Bargaining Unit (CBA). Faculty whose appointments are solely in the BSOM, however, are not tenured nor are they members of AAUP (BSOM does not have a tenure program).

Faculty responsibilities support the three-legs of the academic stool: teaching, scholarship, and service. Research faculty are exempt from classroom teaching, but do mentor students in laboratory research, and often volunteer their services for limited classroom teaching within their area of expertise. Instructors do not maintain a research laboratory, but their scholarship contributes to advancements in course design, pedagogy, and curricula development. Our department has a broad mix of faculty to effectively launch a new undergraduate major in BMB (see below).

- *Describe the credentialing requirements for faculty who will be teaching in the program (e.g., degree requirements, special certifications or licenses, experience, etc.).*

All faculty in the department possess a terminal degree of Ph.D. in their respective fields within the broad categories of biochemistry and molecular biology, or STEM education (Instructors, including the Program Director). Most research faculty also serve as *program faculty* in the Biomedical Science PhD

Program with membership status ranging from Associate, to Associate with voting privileges, to Full, to Full-Dissertation Qualified. Historically, BMB is among the top two departments that attracts the greatest number of PhD students to research programs within this multidisciplinary graduate program.

- *Describe the institution's load/overload policy for faculty teaching in the proposed program.*

Teaching assignments in the Department of Biochemistry & Molecular Biology are dictated by the department chair and abide by the policies/guidelines outlined in the CBA (<http://www.wright.edu/administration/aaup/signed-nte-workload-mou.pdf>). The typical course load for Instructors (Non-tenure Eligible; NTE faculty) is 7 courses per year (3 / 4 semester split), while the teaching obligations for TET faculty (Tenure-Eligible and Tenured) in BMB are considerably less and commensurate with rank (Professors \geq Assoc. Prof \gg Asst. Prof). Appropriate adjustments are made for faculty with advisor duties, laboratory courses *versus* classroom-based courses, or other additional administrative or service responsibilities. Many graduate level courses in BMB are team-taught, providing students with knowledge from experts in specific subject areas (i.e, enzymology; genetics, metabolism).

- *Indicate whether the institution will need to identify additional faculty to begin the proposed program. If additional faculty members are needed, describe the appointment process and provide a timeline for hiring such individuals.*

The department (BMB) recently hired two new Instructor-level faculty (in 2015) and one tenure-track Assistant Professor (in 2016). Currently, there is an on-going faculty search to hire two additional tenure-track faculty at the Assistant or Associate Professor level. The department also has approval to hire two additional tenure-track faculty (Assistant/Associate Professor) in 2017-18 to compensate for anticipated retirements (see below).

8.2 Program faculty

- *Provide the number of existing faculty members available to teach in the proposed program.*
Full-time: 10
Less than full-time: 0
- *Provide an estimate of the number of faculty members to be added during the first two years of program operation.*
Full-time: 2
Less than full-time: 0

8.3 Expectations for professional development/scholarship

- *Describe the institution's general expectations for professional development/scholarship activities by the proposed program's faculty. In your response, describe any differences in the expectations for tenure-track vs. non tenure-track faculty and for full-time vs. part-time faculty. Indicate the financial support provided for such activities. **Include a faculty handbook outlining the expectations and documenting support as an appendix item (Appendix 7).***

The complete WSU Faculty Handbook can be found at: <https://www.wright.edu/faculty-senate/faculty-handbook>.

The Bylaws of the Department of Biochemistry & Molecular Biology clearly specify the criteria for achieving tenure and/or promotion in rank for Assistant/Associate Professors and Research Assistant/Associate Professors. These Bylaws are currently being updated to include guidelines for the

rank of Instructor, which is a new faculty rank within our department. The updated bylaws will be voted on at the Annual Faculty Retreat in August 2016.

The department Bylaws also outlines two available tracks for faculty – a Research Track and an Education Track. Scholarly activities within these tracks strive to advance research in the broad field of biochemistry & molecular biology, or STEM education. All Research-track TET faculty (bound by the CBA) and fully affiliated Boonshoft School of Medicine (BSOM) faculty (not bound by the CBA) are expected to maintain an active grant-funded research laboratory and publish original research articles regularly. Education-track faculty are expected to design new courses and pedagogic methods for learning and assessment, acquire education-based grants, and publish their work. Education track faculty are also assigned a greater teaching load than research track faculty.

Teaching assignments for tenure-track junior faculty (within the Research track) are very limited in order to provide sufficient time for them to establish their research laboratory and submit grant proposals. Typically, Assistant Professors will be given their first classroom teaching assignment (about 2-3 weeks of lecture) during their second semester, with proportionally greater duties as they progress in their pre-tenure time. Instructors, Education-track faculty, and Research-track faculty at the rank of Associate or full Professor (tenured and non-tenured in the case of BSOM appointments) are assigned the majority of teaching within the department. Research-track faculty are assigned their first course directorship at the rank of Associate Professor.

8.4 Faculty matrix

- *Complete a faculty matrix for the proposed program. A faculty member must be identified for each course that is a required component of the curriculum. If a faculty member has not yet been identified for a course, indicate that as an “open position” and describe the necessary qualifications in the matrix (as shown in the example below). **A copy of each faculty member’s CV must be included as an appendix item (Appendix 4).***

Name of Instructor	Rank or Title	Full-Time or Part-Time	Degree Titles, Institution, Year Include the Discipline/Field as Listed on the Diploma	Years of Teaching Experience In the Discipline/Field	Additional Expertise in the Discipline/Field (e.g., licenses, certifications, if applicable)	Title of the Course(s) This Individual Will Teach in the Proposed Program Include the course prefix and number	Number of Courses this Individual will Teach Per Year at <u>All</u> Campus Locations
Julian Cambronero	Full Professor	FT	PhD in Biochemistry, University of Madrid, 1986	25		BMB 4010 BMB 4880 BMB 4950 BMB 4990	≤ 4
Chad Campbell	Instructor	FT	PhD in STEM Education, The Ohio State University, 2013	11	M.S in Molecular Genetics, The Ohio	BMB 1000 BMB 1010 BMB 2000 BMB 2100	≥ 7

					State University, 2009	BMB 3850 BMB 3900 BMB 4000 BMB 4100 BMB 4210 BMB 4230 BMB 4870	
Madhavi Kadakia	Full Professor and Department Chair	FT	PhD in Infectious Diseases and Microbiology, University of Pittsburgh, 1995	16		BMB 4010 BMB 4880 BMB 4950 BMB 4990	≤ 4
Michael Leffak	Full Professor	FT	PhD in Biochemistry, City University of New York, 1976	37		BMB 4010 BMB 4880 BMB 4950 BMB 4990	≤ 4
Weiwen Long	Assistant Professor	FT	PhD in Structural and Cellular Biology, Tulane University, 2005	7		BMB 4010 BMB 4880 BMB 4950 BMB 4990	≤ 4
John Paietta	Associate Professor	FT	PhD in Genetics, University of Illinois, 1982	29		BMB 3030 BMB 4010 BMB 4020 BMB 4880 BMB 4950 BMB 4990	≤ 5
Oleg Paliy	Associate Professor	FT	PhD in Microbiology, Molecular and Structural Biology, University of Manchester, 2001	20		BMB 4010 BMB 4210 BMB 4230 BMB 4880 BMB 4950 BMB 4990	≤ 5
Hongmei Ren	Assistant Professor	FT	PhD in Biochemistry, Institute of Brain Chemistry and Human Nutrition, 2007	3		BMB 4010 BMB 4880 BMB 4950 BMB 4990	≤ 4
Nicholas Reo	Full Professor	FT	PhD in Physical Chemistry, University of Massachusetts, 1983	31		BMB 4010 BMB 4880 BMB 4950 BMB 4990	≤ 4
Michael Schmidt	Instructor	FT	PhD in Chemistry and Biochemistry, Miami University, 2012	5		BMB 3850 BMB 4010 BMB 4880	≤ 3

SECTION 9: LIBRARY RESOURCES AND INFORMATION LITERACY

9.1 Library resources

- *Describe the involvement of a professional librarian in the planning for the program (e.g., determining adequacy of current resources, working with faculty to determine the need for additional resources, setting the budget for additional library resources/services needed for the program).*

See below.

- *Describe the library resources in place to support the proposed program (e.g., print, digital, collections, consortia, memberships, etc.).*

See below.

- *Describe any additional library resources that will be needed to support the request and provide a timeline for acquiring/implementing such services. Where possible, provide a list of the specific resources that the institution intends to acquire, the collaborative arrangements it intends to pursue, and monetary amounts the institution will dedicate to the library budget to support and maintain the proposed program.*

Wright State currently employs 66 staff members as either full-time librarians or as part-time assistants. The library is located on campus and currently holds over 500,000 volumes in the book collection with over 15,000 volumes in special collections and archives. There are 75+ periodical subscriptions and numerous audiovisual items. The Library Learning Center also hosts multiple learning events for those both new and expert in using the library. Additionally computer workstations in the library provide access to all of the WSU library collections and approximately 48 million+ volumes in OhioLink. Access is also available to over 100 online research databases and resources, many with full text. Over 17,000 journals provide electronic access.

Other services include: one-on-one assistance, interlibrary loan, course reserves, and study space.

No additional material will be required to support the major.

9.2 Information literacy

- *Describe the institution's intent to incorporate library orientation and/or information literacy into the proposed program. In your response, describe any initiatives (e.g., seminars, workshops, orientations, etc.) that the institution uses or intends to use for faculty and students in the program.*

As a part of the freshman seminar class in BMB, students will be given a tour of the library and also given assignments to familiarize students with the library resources.

The ENG core requirements in the program also contain library-focused assignments for learning to write scholarly papers.

The Center for Teaching and Learning (CTL) provides assistance to faculty for teaching improvement through workshops, seminars, and orientations.

Finally, in addition to all the above resources the library has online orientations and tutorials for all of its many services.

SECTION 10: BUDGET, RESOURCES, AND FACILITIES

10.1 Resources and facilities

Describe additional resources (e.g., classrooms, laboratories, technology, etc.) that will be needed to support the proposed program and provide a timeline for acquiring/implementing such resources.

The space for the Biochemistry Laboratory (BMB 3850) is available and ready, but the necessary equipment and supplies for the laboratory course are not yet complete. While the majority of the laboratory equipment has been purchased (as noted in year 1 of "Additional technology or equipment needs" in the table below; Section 10.2) some additional laboratory equipment is needed, such as lab reagents and small lab supplies (i.e., pipette tips, etc.). This expense has been labeled under year 2 and continues into subsequent years as some of the laboratory equipment, such as glassware, is expected to need replacement due to breakage. Additionally, there are consumables for the lab that will be purchased on a yearly basis as noted in "other expenses" in the table (see below). Some of the costs of these consumables will be offset by a student lab fee as noted under "other income"; but as biochemical and molecular biological lab supplies are inherently expensive, this lab fee will only recover a small portion of the expected expense. At this time no additional classrooms or technology is required that is not already offered through the university.

10.2 Budget/financial planning

Complete the table on the following page to describe the financial plan/budget for the first four years of program operation.

See below



Board of Regents
University System of Ohio

John R. Kasich, Governor
John Carey, Chancellor

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
I. Projected Enrollment								
Head-count full time (a)(b)	10	16	20	22	22	22	22	22
Head-count part time								
Full Time Equivalent (FTE) enrollment	10	16	20	22	22	22	22	22
II. Projected Program Income								
Tuition (paid by student or sponsor) (c)	\$4,452	\$4,541	\$4,632	\$4,725	\$4,819	\$4,916	\$5,014	\$5,114
SSI (course completion)	\$0	\$4,744	\$12,146	\$21,492	\$27,328	\$30,507	\$31,740	\$31,740
Degrees awarded					6	6	6	6
SSI (degrees awarded) (d)	\$0	\$0	\$0	\$0	\$80,058	\$80,058	\$80,058	\$80,058
Externally funded stipends								
Other income (e)			\$450	\$450	\$450	\$450	\$450	\$450
Total Projected Program Income (tuition, SSI, lab fees) (f)	\$89,040	\$150,056	\$197,876	\$229,842	\$319,872	\$327,319	\$332,864	\$337,264

III. Program Expenses								
New Personnel								
Instruction (technical, professional and general education)								
Full ____								
Part Time ____								
	\$25,000	\$25,500	\$26,214	\$26,738	\$27,273	\$27,819	\$28,375	\$28,942
Non-instruction (indicate role(s) in narrative section below)								
Full ____								
Part time _x____ (g)								
New facilities/building/space renovation	n/a							
Scholarship/stipend support	n/a							
Additional library resources	n/a							
Additional technology or equipment needs (h)	\$32,755	\$5,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Other expenses (i)		\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582
Total Projected Expense	\$57,755	\$33,500	\$30,304	\$30,921	\$31,551	\$32,195	\$32,853	\$33,525
Total Projected Program Income minus Expense	\$31,285	\$116,556	\$167,572	\$198,921	\$288,321	\$295,124	\$300,011	\$303,739



Board of Regents

University System of Ohio

John R. Kasich, Governor
John Carey, Chancellor

Fiscal Impact Statement for New Degree Programs

Budget Narrative:

(Use narrative to provide additional information as needed based on responses above.)

The narrative is provided as footnotes to the table above.

Footnotes to Table

- (a) *Estimated*
- (b) *CSRDE retention data estimated from Fall 2015 Student Fact Book pg. 73. WSU weblink*
<http://www.wright.edu/administration/institutionalresearch/student-fact-book/>
- (c) *Estimated (<http://www.wright.edu/bursar/tuition-fees>)*
- (d)

\$13,343

 SSI Received per Bachelor Degree Awarded (Based on FY16 SSI)
FY16 SSI formula data from BPRA (Kitt Lurie)
- (e) lab fees
- (f) FT Headcount x SSI/semester x 2 semesters
- (g) 1 GTA
- (h) year 1: lab equipment; year 2: supplementary equipment
- (i) lab supplies

APPENDICES

Please list the appendix items submitted as part of the request in the table provided below. Please list the items in the order that they are referred to in the text.

Please note that the institution is required, at a minimum, to submit the following items as part of the review:

Results of recent accreditation reviews	Course syllabi
Organizational Chart	Faculty CVs
Faculty/student handbooks (or link)	Current catalog (or link)

Other items as directed in the supplemental forms (if submitted)

Appendix Name	Description
1. Letter from HLC	Notification of WSU's most recent accreditation from HLC
2. ODHE Form	Initial Inquiry Form to ODHE (formerly OBR)
3. WSU Organization	Organizational Chart for WSU
4. Faculty CVs	CV's for all teaching faculty in the proposed program
5. Hanover Report	Market Study for BS program in BMB at WSU
6. Course Syllabi	Syllabi for all courses in the new BS degree program
7. Faculty Handbook	Section on "Faculty Rights & Responsibilities" from Faculty Handbook
8. Student Handbook	Link is provided in Section 6.3

Commitment to Program Delivery

Provide a statement of the institution's intent to support the program and assurances that, if the institution decides in the future to close the program, the institution will provide the necessary resources/means for matriculated students to complete their degree.

The College of Science & Mathematics (CoSM) is committed to provide a four-year Bachelor of Science (BS) degree in Biochemistry & Molecular Biology at Wright State University. Student success is at the forefront of the college's goals and, as such, the CoSM works closely with all departments towards maximizing student retention, degree completion, and career preparation. The dean is fully supportive of this BMB major and, in fact, has encouraged the development of this new program within the CoSM. If there are curricular changes, or if the program is closed in the future for unforeseen reasons, a transition or "teach out" program will be developed and offered consistent with requirements of Higher Learning Commission Accreditation.

Verification and Signature

(Insert name of the institution) verifies that the information in the application is truthful and accurate.

Wright State University verifies that the information in the application is truthful and accurate.

Signature of the Chief Presiding Officer or the Chief Academic Officer

Thomas A. Sudkamp, Provost, Chief Academic Officer and Vice President for Curriculum and Instruction