MICHIGAN STATE
UNIVERSITY

January 9, 2015

MEMORANDUM

TO: Dr. Douglas Estry, Associate Provost for Undergraduate Education and Dean of Undergraduate Studies

FROM: Dr. John Gaboury, Associate Provost for Academic Services

RE: Request for a New 3 + 4 Option for Lyman Briggs College Biology Majors in Collaboration with the College of Osteopathic Medicine

For Transmittal to the University Committee on Undergraduate Education (UCUE)

The request referenced above is being sent to the University Committee on Undergraduate Education (UCUE) in accordance with the *Bylaws for Academic Governance*, 4.4.

UCUE Response Requested:

Please ask the committee to consider the request referenced above and provide consultative commentary. Please mail the related materials referenced under the heading Attachments at the end of this memorandum to the committee members.

After receiving the committee's consultative response, the Provost will make a determination to forward or not to forward the request to the University Committee on Curriculum for its approval of curriculum and degree requirements.

If you have any questions, please call Joy Speas, University Curriculum Administrator, at 5-8420.

Thank you.

Attachments:

1. Request to Establish a New Academic Program form dated December 10, 2014: 3 + 4 Option and attachments.

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University Curriculum and Catalog

Hannah Admin. Building
426 Auditorium Road
Room 151A
East Lansing, MI 48824

517-355-8420
Fax: 517-353-1935

View a Program

Main Menu

Joy Speas, RO — Thursday, 12/11/2014

Program Name: Lyman Briggs College 3 + 4 Option
Degree: OPTU Sequence Number: 1
Program Request ID: 2874

Effective Dates: Fall 2015 - Open Status: Interim Initial Action: New

Requested Date: 12/1/2014 11:22:03 AM

1. Department/School/College:

28546 .... Lyman Briggs College

2. Name of Program:

Lyman Briggs College 3 + 4 Option

3. Name of Degree:

OPTU

4. Type of Program:

5. Effective Start Semester:

Fall 2015

6. Target student audience for the program:

LBC Biology Majors considering a D.O. from MSUCOM

7. Enrollment:

What is the expected enrollment per year: 5

What is the minimum enrollment acceptable: 0

8. Source of budget for the program:

To align academic planning and curricular change, ALL requests for NEW funds must be included in the College's annual planning letter. Provost approval of new funds and the effective date for the new program must align. If funding is not approved, then the program request will not be forwarded to Faculty Senate.

Internal reallocation

If new funds, was this request included in the College's annual planning letter?
Indicate yes or no. If no, then this is a department or college fund reallocation (If the program is implemented, no additional resources are required.).
No additional funding is required.

9. Projected Costs as compared to other programs in unit:

Same

10. Staff requirement:

How many additional staff will be required: 0

Who will provide the primary instruction. Describe any external linkages(industry, government, etc.):
This builds on existing academic programs. Instruction and advising will be supplied by the two colleges.

11. Will additional equipment be required:

Approximate cost: 0

Source of funding:

12. Will additional library materials be required:

Approximate cost: 0

Source of funding: n/a

13. Will additional space be required:

Type:

Approximate amount: n/a

14. If the program requirements contain a named concentration, do you wish for the concentration to be noted on the student's transcript?:

No

15. Detailed Description:

Lyman Briggs College, in collaboration with the College of Osteopathic Medicine, offers an opportunity for selected LBC students to earn a baccalaureate degree after satisfactory completion of a minimum of 90 credits at Michigan State University and a minimum of 30 credits through subsequent enrollment at Michigan State University College of Osteopathic Medicine. Only students who matriculate as first-year students at Lyman Briggs College may pursue this option. Students interested in this option should consult with their college academic advisor during their first year in the college. Admission to the College of Osteopathic Medicine component of this program is limited to a small number of students who complete the specified university and college requirements and who fulfill admission requirements for the College of Osteopathic Medicine Doctor of Osteopathic Medicine program. All students in this program will complete a minimum of 90 credits at Michigan State University in the Lyman Briggs College Biology major. The requirements for the program are as follows: 1. Completion of all the Michigan State University graduation requirements, including integrative studies and general education. 2. Completion of the Lyman Briggs College graduation requirements including mathematics, chemistry, biology, physics, and HPS. 3. Be pursuing the curriculum for the Lyman Briggs College Biology major. 4. Completion of a minimum of 30 credits at Michigan State University College of Osteopathic Medicine in the preclerkship component of the D.O. degree program. Upon satisfactory completion of the specified 120 credits, students in this program will be eligible for the Bachelor of Science with a major in Biology degree.

16. Are there admissions requirements for this program?:

Grade or grade-point average requirements and if so in which course(s), portfolio requirement, audition, essay, etc. If there are not admission requirements other than those required by the University policy indicate "none".

Yes, students must meet all requirements for admission to the MSUCOM D.O. Degree Program.

DEPARTMENT LEVEL APPROVAL STATUS

Approved: Lyman Briggs College
12/1/2014 11:33:35 AM by Philip Strong for Elizabeth H. Simmons, Dean

SIGNOFFS STATUS

Signed Off: College of Osteopathic Medicine
12/9/2014 3:22:25 PM by Robin Hastings for Gail D. Riegle, Associate Dean

COLLEGE LEVEL APPROVAL STATUS

Approved: Lyman Briggs College
12/10/2014 12:52:06 PM by Philip Strong for Elizabeth H. Simmons, Dean

LYMAN BRIGGS COLLEGE

1. Request to establish in **Lyman Briggs College**, in collaboration with the MSU College of Osteopathic Medicine, a 3 + 4 Option for selected Lyman Briggs College students to earn a baccalaureate degree. The University Committee on Undergraduate Education (UCUE) will consider this request.

   a. **Background Information:**

   Lyman Briggs College, in collaboration with the MSU College of Osteopathic Medicine, offers an opportunity for selected Lyman Briggs College students to earn a baccalaureate degree after satisfactory completion of a minimum of 90 credits at Michigan State University and a minimum of 30 credits through subsequent enrollment at the Michigan State University College of Osteopathic Medicine. Only students who matriculate as first-year students at Lyman Briggs College may pursue this option. Students interested in this option should consult with their college academic advisor during their first year in the college.

   Admission to the MSU College of Osteopathic Medicine component of this program is limited to a small number of students who complete the specified university and college requirements and who fulfill admission requirements for the MSU College of Osteopathic Medicine Doctor of Osteopathic Medicine program.

   b. **Academic Programs Catalog Text:**

   Lyman Briggs College, in collaboration with the MSU College of Osteopathic Medicine, offers an opportunity for selected Lyman Briggs College students to earn a baccalaureate degree after satisfactory completion of a minimum of 90 credits at Michigan State University and a minimum of 30 credits through subsequent enrollment at the Michigan State University College of Osteopathic Medicine. Only students who matriculate as first-year students at Lyman Briggs College may pursue this option. Students interested in this option should consult with their college academic advisor during their first year in the college.

   Admission to the MSU College of Osteopathic Medicine component of this program is limited to a small number of students who complete the specified university and college requirements and who fulfill admission requirements for the MSU College of Osteopathic Medicine Doctor of Osteopathic Medicine program.

   All students in this program will complete a minimum of 90 credits at Michigan State University in the Lyman Briggs College Biology major. The requirements for the program are as follows:

   1. Completion of all the Michigan State University graduation requirements, including integrative studies and general education.
   2. Completion of the Lyman Briggs College graduation requirements including mathematics, chemistry, biology, physics, and history, philosophy and sociology of science.
   3. Be pursuing the curriculum for the Lyman Briggs College Biology major.
   4. Completion of a minimum of 30 credits at the MSU College of Osteopathic Medicine in the preclerkship component of the Doctor of Osteopathic Medicine degree program.

   Upon satisfactory completion of the specified 120 credits, students in this program will be eligible for the Bachelor of Science degree in Lyman Briggs College with a major in Biology.

Effective Fall 2015.

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LYMAN BRIGGS COLLEGE

Elizabeth H. Simmons, DEAN

The Lyman Briggs College is a residential college that bridges the science and humanities through interdisciplinary teaching and research. It provides students with a fundamental core science education in mathematics, chemistry, biology, and physics. Additionally, the core program addresses historical, philosophical, and societal concerns and consequences of modern science, technology, the environment, and medicine. Advanced undergraduate courses in the student's major are taken in the respective departmental units of the College of Natural Science, College of Engineering, College of Agriculture and Natural Resources, and the University at large. The majority of Lyman Briggs students pursue programs leading to advanced graduate study in the natural sciences, or professional programs related to medicine, dentistry, veterinary medicine, allied health, education or law. Many other students plan to enter careers in teaching at the secondary level, science writing, product representation, industry, or government service upon completion of their Bachelor of Science degree.

As a residential college, Lyman Briggs College has classrooms, laboratories, faculty offices, academic advisor offices, and administrative offices located in Holmes Hall, where all first year and many upper-level Lyman Briggs students live and learn. Because of this residential organization, students are able to develop a strong living-learning community identity by integrating academic and personal development, with faculty, staff and their peers in residence. Students are encouraged to balance their academic lives with social, cultural, athletic, service-learning, and leadership opportunities on campus and in the greater East Lansing community.

Students admitted to Michigan State University are admissible to Lyman Briggs College based initially on application date. There are no additional academic or program requirements for freshman admissions. Enrollment in the college is limited; therefore students are encouraged to apply early. Applicants should indicate their intention to become a part of the Lyman Briggs College on the Michigan State University Application for Admissions. If a student has already submitted an application and would like to apply to Lyman Briggs College, she/he should contact the Office of Admissions directly as early as possible.

Students work closely with their academic advisors and faculty in developing an individualized academic plan. All students enter the program as 'no major' status and may declare a major as early as summer orientation or by the time they have earned 56 credit hours.

Students who are enrolled in the environmental biology/microbiology and microbiology coordinate majors in Lyman Briggs College may elect the Specialization in Food Processing and Technology. For additional information, refer to the *Specialization in Food Processing and Technology* statement in the *Depart-*

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ment of Food Science and Human Nutrition statement in the *College of Agriculture and Natural Resources* section of this catalog.

Admission as a Freshman to Lyman Briggs College

Any student who meets the general requirements for admission to the university as shown in the *Undergraduate Education* section of this catalog may enroll in Lyman Briggs College, pending available space.

Transfer Students

All students in good academic standing in Lyman Briggs College may transfer at any time to other programs at Michigan State University for which they are eligible, in order to accommodate changing academic needs and interests.

Students who wish to transfer into Lyman Briggs College should contact the Academic and Student Affairs Office to make an appointment to consult with the Admissions Coordinator. Space in Lyman Briggs College is limited.

UNDERGRADUATE PROGRAM

The Lyman Briggs College program leads to the Bachelor of Science Degree.

Requirements for the Bachelor of Science Degree in Lyman Briggs College

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this University catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Lyman Briggs College.

   Students who are enrolled in the College of Natural Science may complete the alternative track to Integrative Studies in Biological and Physical Sciences that is described in item 1. under the heading *Graduation Requirements* in the College statement. Certain courses referenced in requirement 3. below are equivalent to courses in the alternative track and, therefore, may be used to satisfy the alternative track.

   The completion of the Lyman Briggs College mathematics and statistics requirement [referenced in item 3.c.(4) below] may also satisfy the University mathematics requirement.

   The completion of Lyman Briggs 133 or one of the approved alternatives [referenced in requirement 3.a.(5)(a) below] may also be counted toward the University Tier I writing requirement.

   The University's Tier II writing requirement for the Major and Coordinate Majors in Lyman Briggs College is met by completing Lyman Briggs College 492 and one of the following courses: English 473A; History 425; Lyman Briggs College 332, 333, 334, 335, 336, 355. Those courses are referenced in items 3. a. (5) and 3. a. (6) below.
2. The requirements of Lyman Briggs College for the Bachelor of Science degree, referenced in item 3. a. below.

   The credits earned in certain courses referenced in requirement 3. below may be counted toward College requirements as appropriate.
3. The following requirements of Lyman Briggs College for the Bachelor of Science degree:

		CREDITS
a.	CORE PROGRAM	46 to 55

(1) **Biology:** One of the following **groups** of courses (8 to 10 credits):
- (a) Lyman Briggs 144, 145.
- (b) Biological Science 181H, 191H, 182H, 192H.
- (c) Biological Science 161, 171, 162, 172.

(2) **Chemistry:** One of the following **groups** of courses (8 to 10 credits):
- (a) Lyman Briggs 171, 171L, 172, 172L.
- (b) Lyman Briggs 171, 171L; Chemistry 143
- (c) Lyman Briggs 171, 171L; Chemistry 251.
- (d) Chemistry 141, 142, 161.
- (e) Chemistry 141, 143, 161.
- (f) Chemistry 141, 161, 251.
- (g) Chemistry 151, 152, 161.
- (h) Chemistry 181H, 182H, 185H.

(3) **Mathematics and Statistics:** One of the following **groups** of courses (6 to 8 credits):
- (a) Lyman Briggs 118, 119.
- (b) Lyman Briggs 118; Statistics and Probability 231.
- (c) Mathematics 132, 133.
- (d) Mathematics 132; Statistics and Probability 231.
- (e) Mathematics 152H, 153H.

(4) **Physics:** One of the following **groups** of courses (6 to 8 credits):

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(a) Lyman Briggs 273, 274.
(b) Physics 231, 232, 251, 252.
(c) Physics 183, 184.
(d) Physics 181B, 182B, 251, 252.
(e) Physics 231B, 232B, 251, 252.
(f) Physics 183B, 184B.
(g) Physics 193H, 294H.

(5) **History, Philosophy and Sociology of Science**: A total of 11 or 12 credits from the courses in groups (a), (b), and (c) below. In addition to completing one course from each of the three groups, the student must complete **one** of the following courses from group (b) or group (c): English 483; History 425; Lyman Briggs 332, 333, 334, 335, 336, 355.
   (a) One of the following courses: Lyman Briggs 133; Writing, Rhetoric and American Cultures 110, 115, 120, 125, 130, 135, 140, 145, 150, 195H.
   (b) One of the following courses: Lyman Briggs 331, 332, 333, 334, 335, 336, 355.
   (c) One of the following courses: Lyman Briggs 330, 331, 332, 333, 334, 335, 336, 355, 490E; English 473A; History 425.

   Each of the following courses may be used to meet **either** requirement 3.a.(5)(b) *or* requirement 3.a.(5)(c), but not both of those requirements: Lyman Briggs 331, 332, 333, 334, 335, 355.

(6) **Senior Seminar**: Lyman Briggs 492 (4 credits).

b. MAJOR or COORDINATE MAJOR.
Each student must complete the requirements of a Major or a Coordinate Major. The Major or Coordinate Major must be chosen from the lists of options below. **Both** the Major or Coordinate Major *and* the related courses must be approved by the student's academic advisor. With the approval of the appropriate Lyman Briggs College Curriculum Coordinator or Undergraduate Director, courses other than those that are listed as requirements for a Major or Coordinate Major may be used to satisfy degree requirements.

Majors:
Biology
Computer Science
Earth Science
Environmental Science and Management
Physical Science
History, Philosophy and Sociology of Science

Coordinate Majors:
(1) College of Agriculture and Natural Resources:
   Animal Science
   Entomology
   Fisheries and Wildlife
   Food Science
(2) College of Engineering:
   Computer Science
   Students are admitted to this Coordinate Major after they have reached junior standing and have met certain other requirements specified by Lyman Briggs College .
(3) College of Natural Science:
   Actuarial Science
   Astrophysics
   Biochemistry and Molecular Biology
   Biochemistry/Biotechnology
   Biological Science—Interdepartmental
   Biomedical Laboratory Science
   Chemical Physics
   Chemistry
   Computational Chemistry
   Computational Mathematics
   Diagnostic Molecular Science
   Earth Science—Interdepartmental
   Environmental Biology/Microbiology
   Environmental Biology/Plant Biology
   Environmental Biology/Zoology
   Environmental Geosciences
   Genomics and Molecular Genetics
   Geological Sciences
   Human Biology
   Mathematics
   Mathematics, Advanced
   Microbiology
   Neuroscience
   Nutritional Sciences
   Physical Science—Interdepartmental
   Physics
   Physiology
   Plant Biology
   Statistics
   Zoology

Majors

	CREDITS
1. **Biology**	30

a. A minimum of 30 credits from the courses listed below including:
(1) All of the following courses (18 credits):

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BMB 461 Biochemistry I 3
BMB 462 Biochemistry II 3
MMG 301 Introductory Microbiology 3
MMG 302 Introductory Microbiology Laboratory 1
ZOL 341 Fundamental Genetics 4
ZOL 355 Ecology 3
ZOL 355L Ecology Laboratory 1

(2) One of the following **groups** of courses (6 credits):
(a) PLB 414 Plant Physiology: Metabolism 3
PLB 415 Plant Physiology 3
(b) PSL 431 Human Physiology I 3
PSL 432 Human Physiology II 3

(3) One course from group (a) and one course from group (b) below (6 to 8 credits):
(a) Organismal and Population Biology
(i) Students who complete Physiology 431 and 432 to satisfy requirement 1.a.(2) above must complete one of the following courses:
ENT 404 Fundamentals of Entomology 3
PLB 418 Plant Systematics 3
PLB 434 Plant Structure and Function. 4
PLB 441 Plant Ecology 3
(ii) Students who complete Botany 414 and 415 to satisfy requirement 1.a.(2) above must complete one of the following courses:
ZOL 306 Invertebrate Biology 4
ZOL 328 Comparative Anatomy and Biology Of Vertebrates (W) 4
ZOL 353 Marine Biology (W) 4
ZOL 445 Evolution 3
(b) Cellular, Molecular, and Developmental Biology
LB 347 Advances in Applied Biology 3
MMG 409 Eukaryotic Cell Biology 3
MMG 413 Virology 3
MMG 421 Prokaryotic Cell Physiology. 3
MMG 431 Microbial Genetics. 3
MMG 451 Immunology. 3
ZOL 320 Developmental Biology 4

2. **Computer Science** 30
a. A minimum of 30 credits from the courses listed below including:
(1) All of the following courses (24 credits):
CSE 231 Introduction to Programming I. 4
CSE 260 Discrete Structures in Computer Science 4
CSE 320 Computer Organization and Architecture 3
CSE 330 Algorithms and Data Structures 3
CSE 410 Operating Systems 3
CSE 460 Computability and Formal Language Theory . 3
LB 220 Calculus III 4
(2) At least two of the following courses (6 credits):
CSE 420 Computer Architecture 3
CSE 422 Computer Networks. 3
CSE 435 Software Engineering 3
CSE 440 Introduction to Artificial Intelligence 3
CSE 450 Translation of Programming Languages 3
CSE 452 Organization of Programming Languages . . . 3
CSE 472 Computer Graphics 3
CSE 480 Database Systems 3

3. **Earth Science** 27
a. A minimum of 27 credits from the courses listed below including:
(1) At least 14 credits in courses at the 300–400 level.
(2) At least 8 credits in earth science courses outside the Department of Geological Sciences.
(3) At least *one* course in **each** of the following 5 earth science areas (15 to 22 credits).
(a) Astronomy and Astrophysics
AST 207 The Science of Astronomy 3
(b) Geology of the Solid Earth
GLG 201 The Dynamic Earth 4
GLG 321 Mineralogy and Geochemistry. 4
GLG 351 Structural Geology and Tectonics 4
GLG 361 Petrology (W) 4
GLG 401 Plate Tectonics (W). 4
GLG 481 Reservoirs and Aquifers 3
GLG 491 Field Geology – Summer Camp (W) . . . 6
(c) Paleobiology
GLG 431 Sedimentology and Stratigraphy (W) . . 4
GLG 433 Vertebrate Paleontology 4
GLG 434 Evolutionary Paleobiology. 4
PLB 335 Plants Through Time. 3
(d) Environmental Geosciences and Meteorology
GEO 203 Introduction to Meteorology. 3
GEO 401 Geography of Plants of North America 3
GEO 402 Agricultural Climatology. 3
GEO 405 Weather Analysis and Forecasting 4
GLG 421 Environmental Geochemistry 4
(e) Geomorphology
CSS 470 Soil Resources 3
GEO 407 Regional Geomorphology of the United States. 3
GEO 408 Soil Geomorphology Field Study. 4
Geography 206 and 206L, combined, may be substituted for one of the courses listed above.

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4. **Environmental Sciences and Management** 41
   a. A minimum of 41 credits from the courses listed below including:
      (1) One of the following **groups** of courses (8 or 10 credits):
         (a) LB 118 Calculus I 5
             STT 231 Statistics for Scientists 3
         (b) MTH 132 Calculus I 3
             MTH 133 Calculus II 4
             STT 231 Statistics for Scientists 3
      (2) One course from each of the following 7 areas (24 to 26 credits):
         (a) Ecology:
             ZOL 355 Ecology 3
             ZOL 355L Ecology Laboratory 1
         (b) Geology:
             GLG 201 The Dynamic Earth 4
         (c) Taxonomy or Phylogenetic Biology:
             ENT 404 Fundamentals of Entomology 4
             PLB 418 Plant Systematics 3
             ZOL 306 Invertebrate Biology 4
         (d) Biochemistry:
             BMB 401 Basic Biochemistry 4
         (e) Aquatic Systems:
             FW 420 Stream Ecology 3
         (f) Microbiology:
             MMG 301 Introductory Microbiology 3
         (g) Economics:
             EC 201 Introduction to Microeconomics. 3
      (3) One course from **each** of the following three groups (9 to 11 credits):
         (a) FOR 464 Forest Resource Economics (W) 3
             SOC 452 Environment and Society 3
         (b) FW 424 Population Analysis and Management 4
             FW 444 Conservation Biology 3
         (c) FW 410 Upland Ecosystem Management 3
             FW 417 Wetland Ecology and Management . . . 3
             Students who elect Sociology 452 must also complete Sociology 452L to meet requirement 4. a. (3) (a).
5. **Physical Science.** 31
   a. A minimum of 31 credits from the courses listed below including:
      (1) The following course:
          LB 220 Calculus III 4
      (2) At least 27 credits in chemistry courses, in physics courses, or in chemistry and physics courses approved by the student's academic advisor. At least 20 of the 27 credits must be in courses at the 300 level or above, and at least 14 of the 27 credits must be in **either** chemistry courses **or** physics courses and must meet the conditions specified below:
          For students who elect to complete at least 14 credits in chemistry courses, at least 4 of the 14 credits must be laboratory credits at the 300–400 level.
          For students who elect to complete at least 14 credits in physics courses, at least 6 of the 14 credits must be in modern physics, and at least 3 of the 14 credits must be laboratory credits.
6. **History, Philosophy and Sociology of Science** 24
   a. A minimum of 24 credits in 300–400 level science and technology studies courses approved by the student's academic advisor. Courses in the Lyman Briggs College CORE PROGRAM and Lyman Briggs 492 may not be used to satisfy this requirement. Courses outside Lyman Briggs College may be used to satisfy this requirement.

MINOR IN HISTORY, PHILOSOPHY AND SOCIOLOGY OF SCIENCE

The Minor in History, Philosophy and Sociology of Science, which is administered by Lyman Briggs College, is designed to increase students understanding of the epistemological foundations and ethical elements of science while learning more of the history of some areas of science and appreciating the complex ways that science is connected to other social institutions and practices.

The minor is available as an elective to students who are enrolled in a bachelor's degree program in Lyman Briggs College at Michigan State University. Students majoring in History, Philosophy and Sociology of Science in Lyman Briggs College are not eligible for the minor. With the approval of the college, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree. At least 12 unique credits counted towards the requirements for a student's minor must not be used to fulfill the requirements for that student's major.

Students who plan to complete the requirements for the minor should consult an undergraduate advisor in Lyman Briggs College.

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Requirements for the Minor in History, Philosophy and Sociology of Science

			CREDITS
Complete 15 to 16 credits from the following:			
1. Two of the following courses (8 credits):			
LB	330	Topics in History, Philosophy, and Sociology of Science (W)	4
LB	331	Literature and Science (W)	4
LB	332	Technology and Culture (W)	4
LB	333	Topics in History of Science (W)	4
LB	334	Science, Technology, and Public Policy (W)	4
LB	335	The Natural Environment: Perceptions and Practices (W)	4
LB	336	Gender, Sexuality, Science, Technology (W)	4
LB	355	Philosophy of Technology (W)	4
LB	490E	Advanced Directed Study in History, Philosophy, and Sociology of Science (W)	4
2. Two of the following courses (7 or 8 credits):			
ENG	473A	Literature and Medicine	3
ESA	430	Environmental and Natural Resource Law	3
ESA	440	Environmental and Natural Resource Policy in Michigan	3
GEO	435	Geography of Health and Disease	3
HST	416	History of the Atomic Bomb and Nuclear Culture	3
HST	420	History of Sexuality since the 18th Century	3
HST	425	American and European Health Care since 1800	4
HRT	486	Biotechnology in Agriculture: Applications and Ethical Issues	3
LB	330	Topics in History, Philosophy, and Sociology of Science (W)	4
LB	331	Literature and Science (W)	4
LB	332	Technology and Culture (W)	4
LB	333	Topics in History of Science (W)	4
LB	334	Science, Technology, and Public Policy (W)	4
LB	335	The Natural Environment: Perceptions and Practices (W)	4
LB	336	Gender, Sexuality, Science, Technology (W)	4
LB	355	Philosophy of Technology (W)	4
LB	490E	Advanced Directed Study in History, Philosophy, and Sociology of Science (W)	4
MC	350	Evolution and Society	4
MC	351	Science and Social Policy	4
MC	459	Science, Technology, Environment and Public Policy Capstone (N)	3
PHL	380	Nature of Science	3
PHL	462	Philosophy of Mind	3
PHL	480	Philosophy of Science	4
PHL	484	Philosophy of Biological Science	3
PHL	485	Philosophy of Social Science	3
SOC	368	Science, Technology, and Society	3
SOC	452	Environment and Society	3
SOC	452L	Internship in Environment and Society	1
SOC	475	Sociology of Health Care Systems	3
SOC	476	Social Psychology of Health	3
ZOL	446	Environmental Issues and Public Policy	3

Courses used to fulfill requirement 1. above may not be used to fulfill this requirement. Other courses may be used in fulfillment of this requirement with the approval of the student's academic advisor.

Insert (1)

Insert (1)

LYMAN BRIGGS COLLEGE 3 + 4 OPTION

Lyman Briggs College, in collaboration with the MSU College of Osteopathic Medicine, offers an opportunity for selected Lyman Briggs College students to earn a baccalaureate degree after satisfactory completion of a minimum of 90 credits at Michigan State University and a minimum of 30 credits through subsequent enrollment at the Michigan State University College of Osteopathic Medicine. Only students who matriculate as first-year students at Lyman Briggs College may pursue this option. Students interested in this option should consult with their college academic advisor during their first year in the college.

Admission to the MSU College of Osteopathic Medicine component of this program is limited to a small number of students who complete the specified university and college requirements and who fulfill admission requirements for the MSU College of Osteopathic Medicine Doctor of Osteopathic Medicine program.

All students in this program will complete a minimum of 90 credits at Michigan State University in the Lyman Briggs College Biology major. The requirements for the program are as follows:

1. Completion of all the Michigan State University graduation requirements, including integrative studies and general education.
2. Completion of the Lyman Briggs College graduation requirements including mathematics, chemistry, biology, physics, and history, philosophy and sociology of science.
3. Be pursuing the curriculum for the Lyman Briggs College Biology major.
4. Completion of a minimum of 30 credits at the MSU College of Osteopathic Medicine in the preclerkship component of the Doctor of Osteopathic Medicine degree program.

Upon satisfactory completion of the specified 120 credits, students in this program will be eligible for the Bachelor of Science degree in Lyman Briggs College with a major in Biology.