

From: [Smith, Randy](#)
To: [Callahan, Cynthia](#); [Kitchen, Dawn](#)
Cc: [Leite, Fabio](#); [Reed, Katie](#); [Smith, Randy](#); [Duffy, Lisa](#); [Hunt, Ryan](#); [Fisk, Harold](#); [Vankeerbergen, Bernadette](#); [Martin, Andrew](#); [Olesik, Susan](#); [Horn, David](#); [Anderman, Eric](#); [Schmiesing, Ryan](#); [Zadnik, Karla](#); [Jones, Norman](#); [Daly, Meg](#); [Orr, James](#); [Harris, Brad](#); [Lemon, Jason](#)
Subject: Proposal to offer the BA and BS Biology major on the Mansfield campus
Date: Tuesday, July 16, 2024 2:27:17 PM
Attachments: [image001.png](#)

Cynthia and Dawn,

The proposal from Ohio State Mansfield to offer the BA and BS Biology major programs on its campus was approved by the Council on Academic Affairs at its meeting on July 15, 2024. Thank you for attending the meeting to respond to questions/comments.

No additional level of internal review/approval is necessary. This action will be included in the Council's next [Annual Activities Report](#) to the University Senate (July 2024).

The Office of the University Registrar will work with you on any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Fábio Leite (.11), or me.

I wish you success with this important program development.

Randy



W. Randy Smith, Ph.D.

Vice Provost for Academic Programs

Office of Academic Affairs

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From: [Vankeerbergen, Bernadette](#)
To: [Smith, Randy](#); [Reed, Katie](#)
Cc: [Martin, Andrew W.](#); [Jenkins, Mary Ellen](#); [Ottesen, Jennifer](#); [Steele, Rachel](#)
Subject: Biology major on Mansfield Campus
Date: Wednesday, April 24, 2024 3:32:34 PM
Attachments: [image001.png](#)
[mansfield_bio_final.pdf](#)
[New Major Biology at Mansfield Letter of Motion.pdf](#)

Dear Randy and Katie,

Please find attached a proposal to offer the BA and BS Biology (both the Pre-Health Professions specialization and the Integrated General Biology specialization) on the Mansfield campus. The proposal was approved on Friday, April 19, 2024 by the ASC Curriculum Committee (ASCC).

We are now advancing the proposal for review by CAA. The attached documents are: (1) the actual proposal including letters of support/concurrence and (2) the Natural and Mathematical Sciences Subcommittee cover letter to ASCC .

Please use this email as a cover letter indicating that the proposal has been duly reviewed and approved by the appropriate ASC curricular bodies (including the full ASC Curriculum Committee).

The contact for the proposal is Associate Dean Dawn Kitchen.

Please let me know if you have any questions.

Best regards,
Bernadette



Bernadette Vankeerbergen, Ph.D.

Assistant Dean, Curriculum

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THE OHIO STATE UNIVERSITY

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Chair, Arts and Sciences Curriculum Committee

April 15, 2024

Dear Chair and Members of the Arts and Sciences Curriculum Committee

On April 3, 2024, the Natural and Mathematical Sciences Subcommittee reviewed a request by the Mansfield campus of the Ohio State University to offer the BS and BA in Biology at the Mansfield campus. The campus proposes to offer two specializations in the biology major, the Pre-health Professions Specialization and the recently-approved Integrated General Biology Specialization. The campus has the physical and staffing infrastructure to offer coursework that will allow completion of these majors on the Mansfield campus.

The NMS Subcommittee unanimously voted to approve the proposed offering of the BS and BA at the Mansfield campus. This proposal is now advanced to the ASCC with a motion to approve.

Sincerely,

Ian Hamilton
Professor
Department of Evolution, Ecology, and Organismal Biology
Department of Mathematics
Chair, ASCC Natural and Mathematical Sciences Subcommittee



20 March 2024

Vice Provost W. Randy Smith
Council on Academic Affairs
Office of Academic Affairs
203 Bricker Hall, 190 North Oval Mall
Columbus, OH 43210

Dear Randy,

The Ohio State University at Mansfield seeks to offer B.S. and B.A. degrees in two specializations in the biology major, the Pre-health Professions Specialization and the recently-approved Integrated General Biology Specialization in their entirety on our campus. The relevant departments have approved each course in both specializations, and Mansfield has now offered all of the major courses in the Pre-health Professions Specialization at least once. We have the physical and staffing infrastructure to support the major along with student demand and compelling workforce development needs in the Northeast Ohio community for graduates in this field. We ask for formal approval from the Council on Academic Affairs so that we can advertise the major and actively recruit students.

Sincerely,

Dawn Kitchen, Associate Dean

Cynthia Callahan, Faculty Fellow

Carol Landry, Asso Prof of EEOB

Included:

- Proposal (pages 2-7)
- Table 1: Courses, Staffing, and Approval Status (page 8)
- Table 2: Example of a curriculum sheet for (page 9)
- Addendum 1: Official advising sheets for BS and BA degrees for both specializations (pages 10-18)
- Addendum 2: Letters of approval from Dr. Eric Anderman, Interim Dean and Director, Ohio State Mansfield, Dr. Terri Bucci, President of the Mansfield Faculty, and Dr. Harold Fisk, Interim Director, Center for Life Science Education (pages 19-22)
- Addendum 3: Verification of course approvals (pages 23-81)

Copied:

Dr. Harold Fisk, Interim Director, Center for Life Science Education
Mr. Adam Andrews, Assistant Director for Curriculum & Instruction, Center for Life Science Education
Dr. Eric Anderman, Interim Dean and Director, The Ohio State University at Mansfield
Dr. Ryan Schmiesing, Senior Vice Provost for External Engagement

Proposal to Add the Biology Major Specializations in Pre-Health Professions and Integrated General Biology at The Ohio State University at Mansfield

EXECUTIVE SUMMARY

The Ohio State University at Mansfield seeks to add to its curriculum two specializations in the biology major, the Pre-Health Professions and Integrated General Biology. The BS and BA plans for the two specializations provide maximum flexibility to satisfy student demand for a natural science major, support enrollment and retention of students at our campus and within the university, and meet regional workforce need for people trained in biological and health sciences. The specializations also align with the Mansfield campus's [Strategic Plan](#) and the Office of Academic Affairs' vision for regional campuses, stated in ["Regional Campus Vision and Goals."](#) These documents set the goal of increasing STEM offerings to meet student demand and workforce development need. Each course in these specializations is already approved to be offered on the Mansfield campus. We request final approval from the Council on Academic Affairs to make the biology major official so we can advertise these degree options and incorporate them into our recruitment strategies.

BACKGROUND INFORMATION & RATIONALE

The regional campuses at The Ohio State University were established more than 50 years ago to provide access to higher education for every Ohioan, regardless of their proximity to Columbus. Mansfield and the other regional campuses fulfill the land grant mission of Ohio State through open access admissions and affordable tuition. Regional campuses also prioritize outreach and engagement in their communities through collaborations between local stakeholders and university partners to extend the university's reach to all parts of the state. These priorities guide the campus's curricular decisions, including the addition of bachelor's degree programs in biology.

The Mansfield campus is located in Northeast Ohio. Students can begin any Ohio State major at the Mansfield campus, and many campus change in their second or later years to complete their majors in Columbus (roughly 200-250 students each year). For those who prefer to remain at Mansfield, there are several four-year degrees that can be finished completely on our campus—Business Management, Child and Youth Studies, Primary and Middle Childhood Education, Engineering Technology, English, History, Psychology, and Social Work.

The campus prides itself on offering a small liberal arts experience within the larger university, yet we currently offer no majors in the natural sciences. Ohio State Mansfield's most recent [Strategic Plan](#) addresses this curricular gap. It specifically advocates for "adding courses and programs to support students interested in healthcare careers" as part of an overall strategy of "expand(ing) our curriculum to align our programs more fully with student demand and regional workforce needs."

The specializations in Pre-Health Professions (PHP) and Integrated General Biology (IGB) align with all aspects of that objective. They will support the enrollment and retention of students at our campus

and within Ohio State, and they respond to regional demand for people prepared to work in biological and health sciences.

STUDENT DEMAND & RETENTION

Student demand for a biology degree is high. 17.5% of students *admitted* to Ohio State Mansfield indicated on their applications that they want to major in biology, many with the intention of working in health sciences occupations.

Among *enrolled* students in AU 2023, 37 have declared biology majors, which is 5.3% of enrolled degree seeking students. (This group includes students in majors that can be finished at Mansfield as well as those that require campus change for completion). Of majors that can be completed on our campus, biology would be the fourth most popular (see below); demand for it is comparable to Mansfield's other majors, with potential to grow.

Mansfield Majors:	Bio	BSET	Bus Mngt	Edu- CYS	Edu- Middle	Edu- Prim	English	Hist	Psych	Soc/ Crim	Soc Work
Total students:	38	26	18	4	29	69	16	12	55	18	46
of 331 w/Mansfield major	11%	8%	5%	1%	9%	21%	5%	4%	17%	5%	14%
of 718 degree seeking:	5.3%	3.6%	2.5%	0.6%	4.0%	9.6%	2.2%	1.7%	7.7%	2.5%	6.4%

We know that not all students who begin at Mansfield want to stay for four years, yet some do. A versatile degree like biology expands options for our students. It accommodates those interested in an Ohio State degree and an equally compelling interest in staying in Northeast Ohio. By fulfilling this need on the Mansfield campus, we stay true to the land grant mission of the university.

Beyond the students who may stay for four years if given the option, we can retain students in related biological and health sciences majors on campus for a longer time by offering the courses that support these two specializations. This option will contribute to our overall campus enrollments because students can start working on their major requirements while in Mansfield, which ensures their progress toward graduation.

For instance, we have 16 students with declared majors in zoology, EEOB, or health sciences programs as well as an additional 41 pre-health related majors and 27 students exploring health related fields. These students can fulfill at least two years of required biology and chemistry courses at Mansfield before they campus change to Columbus.

Even students determined to campus change sometimes want (or need) a little more time in our small-campus setting. This time allows them to hone skills so that they succeed when they transition to Columbus. Their extended time on our campus benefits us, too. In this moment of competition between universities for a dwindling population of students, our campus benefits from each student we retain for each additional semester.

The IGB specialization, in particular, contributes to retention of students who begin in the PHP specialization only to realize that their career goals have changed. The IGB, while sharing most courses with the PHP, allows for a path to non-health professions and an opportunity for students to complete a STEM major in a timely fashion without needing to campus change or transfer to another university. Likewise, the BA option in both specializations provides additional opportunities for on-time graduation for those students who pivot midway through their coursework. According to Dr. Harold Fisk, Interim Director of the Center for Life Sciences Education (CLSE), “At OSU, only slightly more than half of students who matriculate as Biology Majors are retained in STEM majors two years later. For minority students, that number is closer to 40%. The lack of a clear or desirable alternative option[s] to the PHP Specialization is often cited by students as a reason for leaving the major.”

The retention impact of adding this major extends beyond the campus to the Ohio State University as a whole. Our campus admissions office examined the last five years of applications and reports that only 24% of admitted applicants to Ohio State Mansfield who intended to major in biology ultimately enrolled at the Mansfield campus. *The rest chose another institution instead of becoming Buckeyes.* Similarly, for place-bound students or those seeking a small-campus experience, the choice is not between Mansfield and Columbus, but between Mansfield and a different university altogether. Adding a popular major like biology to the Mansfield campus’s curriculum will enhance the university’s overall enrollments, too.

WORKFORCE DEVELOPMENT

Majors that focus on health sciences and general biological sciences fulfill the regional campus’s mission to engage with our communities and meet their needs. The health sciences are among the highest demand employment sectors in Northeast Ohio, according to [Team Northeast Ohio](#) (a JobsOhio partner). Demand for workers skilled in the health sciences exceeds supply. Ohio State Mansfield has the capacity to grow the biology major and address that need. Nearly half of our new first-year students (over 150) are from the major metropolitan areas of Northeast Ohio. If we provide students with options for completing degrees that prepare them for jobs in high demand fields within their own communities, then we can help address the workforce development needs of our region.

Our proximity to Cleveland and Akron-Canton benefits the biology major, too. We can cultivate relationships with employers in these areas to establish internships and employment pathways for students when they graduate. The campus has already begun this effort, collaborating with Charles River Laboratories in Ashland, Ohio, for student internship and scholarship opportunities. Once the major is official and we can advertise, then the campus’s Career Services Coordinator and Development Officer can help to expand these networks.

Meeting workforce needs is more than a concern of local employers; it is a stated priority for the university. [OAA](#) recently set a goal for regional campuses to “expand educational offerings in STEM disciplines such as engineering, natural sciences, and health sciences.” The addition of these specializations does exactly that.

STRUCTURAL CAPACITY

Curricular

The Mansfield campus currently offers all required courses to fulfill the BS in Biology, Pre-Health Professions (PHP) Specialization. In addition, we are prepared to offer the one required course in

Integrated General Biology (IGB) that is not also required for the Pre-Health Professions specialization (EEOB 3410). All required courses in both specializations have been approved for delivery by the departments that contribute courses to the major through the CLSE (approvals attached).

Initially, we will offer some upper-level courses in the major on a two-year rotation to maximize enrollments and distribute the course load across the faculty. Students will work closely with their advisor as they progress through the major to ensure that they take courses in the appropriate sequence. When enrollments permit, we will hire the additional faculty needed to offer these courses every year along with additional elective courses that fulfill the major.

The campus already has relationships with local employers to offer internships to our students. The campus Career Services manager will continue to build relationships with employers who can provide internships and job placement for biology majors. Further, many of the science faculty already offer research opportunities for students, and they will continue to expand undergraduate research in field- and lab-based sciences that can be completed entirely on the campus.

Physical

In preparation for offering the biology major, the Mansfield campus invested in a new state-of-the-art organic chemistry lab, which is now used to teach Chemistry 2540 and 2550. We have sufficient laboratory and classroom spaces for all coursework required in both specializations: biology, physics, and biochemistry. Additionally, leveraging local funding to match a grant from Ohio State's Integrated Physical Planning Liaison Group (IPPLG), the campus recently renovated spaces near the Chemistry labs to create a popular STEM student lounge and informal studying/teaching space.

Beyond classroom space, the campus possesses a unique natural environment (600 acres, called the Ecolab)—a major asset that enriches coursework. The area includes outdoor classroom space and a greenhouse to house plants for biology classes and where students can do research on plants and insects. Ecolab is a living laboratory of secondary forest, streams, ponds, and wetlands that will support EEOB 3410. The Ecolab's wetlands area also enhances labs in Biology 3401, while the forest and wetland areas support Biology 1114. The Ecolab also hosts robust research initiatives in land management and environmental sciences, with collaborations among biology faculty, SENR, and Extension, among other partners. While not directly related to the health sciences, these networks offer students additional opportunities for lab and field-based research that can build on their biology coursework in the IGB and PHP programs.

Staffing

We have appropriate faculty staffing to offer the PHP major now, and we have student academic success resources to support biology majors. Eleven faculty members at Ohio State Mansfield are already teaching the courses needed for the B.S. in Biology, Pre-Health Professions Specialization and we are prepared to add in the additional courses for the Integrated General Biology degree as soon as enrollment allows for a new hire. Instructors are all long-term employees with PhDs in the disciplines in which they teach. Two are tenured through EEOB, one through Anthropology with a courtesy appointment in EEOB, one through Microbiology, and one through Chemistry. There are also six senior lecturers who have been employed full-time on the campus for at least 5 years.

Table 1 illustrates the required courses, instructors responsible, and the course's status on campus. When more than one faculty member can teach the course, the additional names are also included. This overlap ensures cross-coverage for times when faculty are on leave.

The campus's student academic success team provides support services. Jamie Stima, Undergraduate Academic Advisor 2, advises all of the biology, health science, and exploration students. The faculty coordinator of the biology major, Dr. Carol Landry, oversees the curriculum, plans the yearly course schedule, and collaborates with the advisor to ensure students are progressing to graduation.

The Conard Learning Center (CLC) provides free tutoring and study skills services. CLC staff oversees tutors specializing in math and statistics, as well as chemistry, biology, and physics. Student Life Disability Services (SLDS) works with students with documented disabilities to secure their accommodations. The Bromfield Library and Information Commons offers study space, technology rental, and research support.

Senior Lecturer Dr. Suma Robinson advises the Mansfield campus Biology Club, which introduces students to career opportunities and builds community around common academic interests.

ACTIONS AND COROLLARY ISSUES FROM IMPLEMENTATION Effects on Specific Constituencies

- Students (positive): it's an opportunity to complete a major in biology entirely on the Mansfield campus. Both specializations, with BS and BA options, meet students' strong desire for pre-health sciences preparation with additional options on campus for students who may need to pivot if their career goals change or their academic performance warrants. It also allows students in related fields to complete more coursework before they campus change.
- Faculty (positive): they will be able to teach within their areas of specialization and in more upper-level courses than previously. Faculty will also be able to mentor more students in independent research projects that can be conducted entirely on our campus.
- Administration (slight negative): the enrollment of advanced courses as the major grows may not meet the required minimum enrollment levels. This situation can be mitigated by the plan to rotate courses to maximize enrollment, but it will likely require some initial patience from budget administrators. Approval by CAA will also help address this problem. The sooner the major is approved, the sooner the office of admissions can actively market and recruit for it, and the development office can start fundraising to offset costs for equipment upgrades.

Internal Programmatic Changes

- Most of the changes have already happened. The lab has already been renovated to offer organic chemistry. All courses for PHP have been planned and approved, and students are already taking them. Curriculum advising sheets and a staffing plan are included below. (See Table 1 for the staffing plan, Table 2 for an example curriculum sheet to guide Mansfield students, and Tables 3-6 for the official CLSE Advising Sheets for BA and BS pathways for each specialization.)

- Staffing demands will grow with the major, requiring the campus to hire another faculty member (tenure-track or clinical) in physiology and anatomy with expertise at the cellular and developmental level, so they can teach cell biology (EEOB 3510) in addition to other courses in physiology and anatomy.

External Effects

- Strengthening the campus's curricular offerings in the sciences. By pairing biology with the newly approved Engineering Technology major, we will enhance the campus's STEM offerings, establishing academic community around STEM. Just as the new Engineering Technology major has attracted new donors, there is potential to expand the biology program through community partnerships and funds raised.

APPROVALS & OTHER SUPPORTING DOCUMENTS

Because of the cross-departmental nature of the biology major, administered through the Center for Life Science Education (CLSE), course concurrences were required by each contributing department. The concurrences were acquired by CLSE when the biology major was first established, and the courses were subsequently approved for delivery on the Mansfield campus. Those courses are listed in Table 1. Addendum 3, at the end of this document, includes screenshots the records of the individual course approvals from the curriculum.osu.edu portal.

Table 2 is an example of the curriculum sheet we would use to guide students through the major on our campus and Addendum 1 includes official CAA approved advising documents for the BA and BS pathways for each specialization of the Biology major.

Addendum 2 includes letters of support for adding the major to the Mansfield campus from the Interim Dean and Director of the Mansfield campus, Dr. Eric Anderman, Dr. Terri Bucci, President of the Mansfield Faculty Assembly, and Dr. Harold Fisk, Interim Director of the CLSE.

Table 1.

Courses Mansfield will offer for the degrees in Biology, with faculty that teach those courses.

Course #	Course Title	Instructors *	Approved, Currently Taught at Mansfield
Courses Supporting Major			
BIOL 1113	Energy transfer and development	Landry, Robinson	Yes
BIOL 1114	Form, function, diversity, and ecology	Landry (Hopson)	Yes
CHEM 1210	General chemistry I	Siciliano, Wyzgoski	Yes
CHEM 1220	General chemistry II	Siciliano, Wyzgoski	Yes
STATS 2480.01	Statistics for life sciences	Katsaounis	Yes
PHYS 1200	Mechanics, kinematics, fluids, waves	Frank	Yes
PHYS 1201	E&M, optics, modern physics	Frank	Yes
CHEM 2510	Organic chemistry I	Robishaw (Siciliano)	Yes
CHEM 2520	Organic chemistry II	Robishaw (Siciliano)	Yes
CHEM 2540	Organic chem lab I	Robishaw (Siciliano)	Yes
CHEM 2550	Organic chem lab II	Robishaw (Siciliano)	Yes
Required Courses			
BIOL 3401	Integrated biology	Hopson, (Landry, Muñoz-Garcia)	Yes
MOLGEN 4500	General genetics	Robinson (Abedon)	Yes
ANAT 2300.01	Human anatomy+	Muñoz-Garcia, new hire	Yes
EEOB 2520	Human physiology	Muñoz-Garcia (Abedon)	Yes
EEOB 3310	Evolution	Landry (Hopson, Muñoz-Garcia)	Yes
BIOCHEM 4511	Intro to biological chemistry	Robishaw (Abedon)	Yes
Electives for Major			
MICRO 4000	Basic and practical microbiology ⁺	Abedon, Robinson	Yes
EEOB 3410	Ecology	Landry, Muñoz-Garcia	Approved, not taught
EEOB 3510	Cellular and developmental biology	New hire, Robinson, Landry	Approved, not taught
EEOB 3520	Microscopic anatomy ⁺	Muñoz-Garcia, new hire	Yes
EEOB 4510	Comparative anatomy ⁺	Muñoz-Garcia, new hire	Approved, not taught
EEOB 4520	Comparative physiology	Muñoz-Garcia, new hire	Yes

*Primary instructor(s) listed first; names in parentheses indicate others who could also teach the course for cross-coverage.

⁺Designates lab courses

Table 2.

OSU Mansfield Sample Advising Sheet BS in Biology, Pre-Health Professions Specialization

NOTE: Foundations & Themes can be done in any order; one 4-credit Integrative Theme course can substitute for two 3-credit Theme courses

Autumn Year 1	Credits	Spring Year 1	Credits
Biol 1114 Form, function, diversity, and ecology	4	Biol 1113 – Energy transfer and development	4
Math 1151 – Calc I (GE Foundation: Math) *	5	GE Foundation: Soc & Behav Sciences	3
Chem 1210 – Gen Chem I (GE Foundation: Nat Sci)	5	Chem 1220 – Gen Chem II	5
Exp 1001 – Exploration	1	GE Foundation: Writing and Info Literacy	3
	15		15
Autumn Year 2	Credits	Spring Year 2	Credits
Anat 2300.01 – Human Anatomy[‡]	4	Biol 3401 – Integrated Biology	4
Chem 2510 – Organic Chem I	4	Chem 2520 – Organic Chem II	4
Chem 2540 – Organic Chem Lab I	2	Chem 2550 – Organic Chem Lab II	2
GE Theme: Citizenship Diverse Just World	4	GE Foundation: Lit, Visual & Perform Arts	3
GE Bookend – Launch Seminar	1	EEOB 2520 – Human physiology	3
	15		16
Autumn Year 3	Credits	Spring Year 3	Credits
Physics 1200 – Introductory Physics I	5	Elective: EEOB 3520 Micro anatomy[‡]	3
Stat 2480 – Stats for Life Sciences	3	Physics 1201 – Introductory Physics II	5
EEOB 3310 - Evolution	4	GE Language course 1	4
GE Foundation: Race, Ethnic, Gender diversity	3	GE Theme course	3-4
	15		15-16
Autumn Year 4	Credits	Spring Year 4	Credits
Molgen 4500 - Genetics	3	Elective: EEOB 4520 – Comparative Physiology	3
Biochem 4511 - Intro to Biochemistry	4	Elective: Micro 4000 – Microbiology[‡]	4
GE Foundation: Historical & Cult Studies	3	GE Language course 3	4
GE Language course 2	4	Elective (or 2 nd 3 cr Theme course)	3
GE Bookend – Reflection Seminar	1	None (or 2 nd 3 cr Theme course)	0-3
	15		14-17
Total Credits			121

*Plan assumes Calculus ready (Level L) & placement in English 1110.01. If lower, summer classes or semesters with larger credit loads may be necessary to graduate in 4 years.

Bold indicates Core or Required courses.

Red color indicates 32 total electives required (25 from <https://clse.osu.edu/students/requirements/prehealth>)

[‡]indicates lab course; 3 required (3-cr internship or independent study can substitute for one lab course)

Addendum 1

Four CAA approved advising sheets for the BS and the BA in Biology with a Pre-Health Specialization and with an Integrated General Biology Specialization

Biology Major Checklist
Bachelor of Science
Pre-Health Professions Specialization

NAME _____
 SEMESTER OF GRADUATION _____

DATE _____

General Education Requirements (32-39 credit hours)

- | | |
|--|------------|
| ☐ GE Launch Seminar (1) | GENED 1201 |
| ☐ Foundations: Writing and Information Literacy (3) | _____ |
| ☐ Foundations: Mathematics & Quantitative Reasoning | _____ |
| / Data Analysis (3-5) | _____ |
| ☐ Foundations: Literacy, Visual & performing Arts (3) | _____ |
| ☐ Foundations: Historical & Cultural Studies (3) | _____ |
| ☐ Foundations: Natural Sciences (4-5) | _____ |
| ☐ Foundations: Social & Behavioral Sciences (3) | _____ |
| ☐ Foundations: Race, Ethnicity and Gender Diversity (3) | _____ |
| ☐ Theme: Citizenship for a Diverse & Just World (4-6) | _____ |
| ☐ Theme: Student Choice (4-6) | _____ |
| ☐ GE Reflection (1) | GENED 4001 |

Required Arts & Sciences Courses (1-13 Credit Hours)

- | | |
|---|-------|
| ☐ Arts & Sciences Survey (1) | _____ |
| ☐ World Language (0-12) | _____ |

Required Supporting Courses (48-54 credit hours)

Biology (Check 2 boxes)

- ☐ Biology 1113.01 (4) or 1113.02 (5)*
☐ Biology 1114.01 (4) or 1114.02 (5)*
☐ _____ Substitution

* Can be used to fulfill the GEN Foundation: Natural Sciences requirement

Mathematics/Statistics (Check 2 boxes)

- ☐ Math 1151 or 1156 (5)**
☐ Math 1152 (5) or Stat 2480 (3) or Stat 2450 (3)
☐ _____ Substitution

** Can be used to fulfill the GEN Foundation; MQR/DA requirement

Physics (Check 2 boxes)

- ☐ Physics 1200 (alg) or 1250 (calc) (5)
☐ Physics 1201 (alg) or 1251 (calc) (5)
☐ _____ Substitution

Chemistry (Check 2 boxes)

- ☐ Chemistry 1206 (3) and 1208 (4)
 or 1210 or 1610 or 1910H (5)
☐ Chemistry 1220 or 1620 or 1920H (5)
☐ _____ Substitution

Organic Chemistry (Check boxes for 2 lectures + 2 labs)

- ☐ Chemistry 2510 or 2610 or 2910H (4) – Lecture 1
☐ Chemistry 2520 or 2620 or 2920H (4) – Lecture 2
☐ Chemistry 2540 or 2940H (2) – Lab 1
☐ Chemistry 2550 or 2950H (2) – Lab 2
☐ _____ Substitution

**Biology Major Checklist
Bachelor of Science
Pre-Health Professions Specialization**

Core Course (4 credit hours)

- ☐ Biology 3401 (4) – *Integrated Biology*

Pre-Health Professions Specialization (15-25 credit hours)

Required

- ☐ MolGen 4500 (3) or 4606 (4)

Additional Coursework (Check at least 4 boxes)

- ☐ Biochem 4511 (4), or 5613 AND 5614 (6)
☐ EEOB 3310 or 3310.01 or 3310.02† (4) – *Evolution*
☐ Micro 4000† or 4000.01† or 4000.02† (4) or 4100 (5)
☐ EEOB 3510 or MolGen 4700 or MolGen 5607 or MolGen 5608 (3) – *Cell Biology*
☐ EEOB 3520† (3) – *Microscopic Anatomy / Histology*
☐ Anatomy 2300.01† (4) or 3300.01† (5) or EEOB 2510† (3) – *Human Anatomy*
☐ EEOB 4510† (3) – *Comparative Vertebrate Anatomy*
☐ Physio 3200 (5) or EEOB 2520 (3) – *Human Physiology* or EEOB 4520 (3) *Comparative Physiology*
☐ EEOB 3270 (3) or 3320 (3) or 3410 (4) or 3420 (4) or 4240 (3) – *Ecology*

Electives

Embedded Literacies (no additional credit hours)

- | | |
|--|--------------|
| ☐ Advanced Writing | Biology 3401 |
| ☐ Advanced Data Analytics | Biology 3401 |
| ☐ Technology Literacy | Biology 3401 |

TOTAL BioSci HOURS

TOTAL SEMESTER UNITS

Notes:

- Core, specialization, and elective courses must total 32 semester units, and must include three laboratory courses.
- At least 25 of the 32 semester units must be courses in Biochemistry, Biology, EEOB, Microbiology, or Molecular Genetics, and courses outside these departments must be pre-approved by a Biology advisor.
- Electives must be at the 2000 level or above, except for Biology which must be at the 3000 level or above.
- Up to 3 credit hours of research, individual study, or internship may be counted toward the major and, with approval of a major advisor, may be counted as a laboratory course.
- Transfer credit allowed - no more than one half of the credit hours required on the major.
- Honors versions of courses substitute freely.

NAME _____

SEMESTER OF GRADUATION _____

General Education Requirements (32-39 credit hours)

- ### Required Arts & Sciences Courses (1-13 Credit Hours)

- Required Supporting Courses (32-42 credit hours)**

☐ Physics 1200 (alg) or 1250 (calc) (5)
☐ Substitution

☐ Chemistry 2310 (4),
OR 2510 AND 2520 (8)
OR 2510 AND 2540 (6)

☐ _____ Substitution

☐ Waived

**Biology Major Checklist
Bachelor of Arts
Pre-Health Professions Specialization**

Core Course (4 credit hours)

- ☐ Biology 3401 (4) – *Integrated Biology*

Pre-Health Professions Specialization (15-25 credit hours)

Required

- ☐ MolGen 4500 (3) or 4606 (4)

Additional Coursework (Check at least 4 boxes)

- ☐ Biochem 4511 (4), or 5613 AND 5614 (6)
☐ EEOB 3310 or 3310.01 or 3310.02+ (4) – *Evolution*
☐ Micro 4000+ or 4000.01+ or 4000.02+ (4) or 4100 (5)
☐ EEOB 3510 or MolGen 4700 or MolGen 5607 or MolGen 5608 (3) – *Cell Biology*
☐ EEOB 3520+ (3) – *Microscopic Anatomy / Histology*
☐ Anatomy 2300.01+ (4) or 3300.01+ (5) or EEOB 2510+ (3) – *Human Anatomy*
☐ EEOB 4510+ (3) – *Comparative Vertebrate Anatomy*
☐ Physio 3200 (5) or EEOB 2520 (3) – *Human Physiology* or EEOB 4520 (3) *Comparative Physiology*
☐ EEOB 3270 (3) or 3320 (3) or 3410 (4) or 3420 (4) or 4240 (3) – *Ecology*

Electives

Embedded Literacies (no additional credit hours)

- | | |
|--|--------------|
| ☐ Advanced Writing | Biology 3401 |
| ☐ Advanced Data Analytics | Biology 3401 |
| ☐ Technology Literacy | Biology 3401 |

TOTAL BioSci HOURS

TOTAL SEMESTER UNITS

Notes:

- Core, specialization, and elective courses must total 32 semester units, and must include three laboratory courses.
- At least 25 of the 32 semester units must be courses in Biochemistry, Biology, EEOB, Microbiology, or Molecular Genetics, and courses outside these departments must be pre-approved by a Biology advisor.
- Electives must be at the 2000 level or above, except for Biology which must be at the 3000 level or above.
- Up to 3 credit hours of research, individual study, or internship may be counted toward the major and, with approval of a major advisor, may be counted as a laboratory course.
- Transfer credit allowed - no more than one half of the credit hours required on the major.
- Honors versions of courses substitute freely.

Biology Major Checklist
Bachelor of Science
Integrated General Biology Specialization

NAME _____
 SEMESTER OF GRADUATION _____

DATE _____

General Education Requirements (32-39 credit hours)

- | | |
|--|------------|
| ☐ GE Launch Seminar (1) | GENED 1201 |
| ☐ Foundations: Writing and Information Literacy (3) | _____ |
| ☐ Foundations: Mathematics & Quantitative Reasoning / Data Analysis (3-5) | _____ |
| ☐ Foundations: Literacy, Visual & performing Arts (3) | _____ |
| ☐ Foundations: Historical & Cultural Studies (3) | _____ |
| ☐ Foundations: Natural Sciences (4-5) | _____ |
| ☐ Foundations: Social & Behavioral Sciences (3) | _____ |
| ☐ Foundations: Race, Ethnicity and Gender Diversity (3) | _____ |
| ☐ Theme: Citizenship for a Diverse & Just World (4-6) | _____ |
| ☐ Theme: Student Choice (4-6) | _____ |
| ☐ GE Reflection (1) | GENED 4001 |

Required Arts & Sciences Courses (1-13 Credit Hours)

- | | |
|---|-------|
| ☐ Arts & Sciences Survey (1) | _____ |
| ☐ World Language (0-12) | _____ |

Required Supporting Courses (48-54 credit hours)

Biology (2 courses)

- ☐ Biology 1113.01 (4) or 1113.02 (5)*
- ☐ Biology 1114.01 (4) or 1114.02 (5)*
- ☐ _____ Substitution

* Can be used to fulfill the GEN Foundation: Natural Sciences requirement

Mathematics/Statistics (2 courses)

- ☐ Math 1151 or 1156 (5)**
- ☐ Math 1152 (5) or Stat 2480 (3) or Stat 2450 (3)
- ☐ _____ Substitution

** Can be used to fulfill the GEN Foundation; MQR/DA requirement

Physics (2 Courses)

- ☐ Physics 1200 (alg) or 1250 (calc) (5)
- ☐ Physics 1201 (alg) or 1251 (calc) (5)
- ☐ _____ Substitution

Chemistry (2 courses)

- ☐ Chemistry 1206 (3) and 1208 (4) or 1210 or 1610 or 1910H (5)
- ☐ Chemistry 1220 or 1620 or 1920H (5)
- ☐ _____ Substitution

Organic Chemistry (2 lectures + 2 labs)

- ☐ Chemistry 2510 or 2610 or 2910H (4) – Lecture 1
- ☐ Chemistry 2520 or 2620 or 2920H (4) – Lecture 2
- ☐ Chemistry 2540 or 2940H (2) – Lab 1
- ☐ Chemistry 2550 or 2950H (2) – Lab 2
- ☐ _____ Substitution

Biology Major Checklist
Bachelor of Science
Integrated General Biology Specialization

Core Course (4 credit hours)

- ☐ Biology 3401 (4) – *Integrated Biology*

Integrated Biology Specialization (28-36 credit hours)

Required (Check 6 boxes)

- ☐ MolGen 4500 (3) or 4606 (4)
☐ Micro 4000† or 4000.01† or 4000.02† (4) or 4100† (5)
☐ Biochem 4511 (4), or 5613 AND 5614 (6)
☐ EEOB 3510 or MolGen 4700 or MolGen 5607 or MolGen 5608 (3) – *Cell Biology*
☐ EEOB 3310 or 3310.01 or 3310.02† (4) – *Evolution*
☐ EEOB 3410† (4) – *Ecology*

Two Advanced (4000+) electives (6-10)

☐ _____ ()

☐ _____ ()

Electives

Embedded Literacies (no additional credit hours)

- | | |
|--|--------------|
| ☐ Advanced Writing | Biology 3401 |
| ☐ Advanced Data Analytics | Biology 3401 |
| ☐ Technology Literacy | Biology 3401 |

TOTAL BioSci HOURS

TOTAL SEMESTER UNITS

Notes:

- Core, specialization, and elective courses must total 32 semester units, and must include three laboratory courses.
- At least 25 of the 32 semester units must be courses in Biochemistry, Biology, EEOB, Microbiology, or Molecular Genetics, and courses outside these departments must be pre-approved by a Biology advisor.
- Electives must be at the 2000 level or above, except for Biology which must be at the 3000 level or above.
- Up to 3 credit hours of research, individual study, or internship may be counted toward the major and, with approval of a major advisor, may be counted as a laboratory course.
- Transfer credit allowed - no more than one half of the credit hours required on the major.
- Honors versions of courses substitute freely.

NAME _____
SEMESTER OF GRADUATION _____

General Education Requirements (32-39 credit hours)

- ### Required Arts & Sciences Courses (1-13 Credit Hours)

- Required Supporting Courses (32-42 credit hours)**

☐ Biology 1113.01 (4) or 1113.02 (5)*
☐ Biology 1114.01 (4) or 1114.02 (5)*
☐ Substitution

- ☐ Chemistry 1206 (3) and 1208 (4)
Or 1210 or 1610 or 1910H (5)
- ☐ Chemistry 1220 or 1620 or 1920H (5)
- ☐ Substitution

☐ Math 1148 (4)** – *College Algebra AND*
 Math 1149 (3) – *Trigonometry,*
 OR Math 1150 (5) ** – *Pre-Calculus*
☐ Substitution

☐ Chemistry 2310 (4),
OR 2510 AND 2520 (8)
OR 2510 AND 2540 (6)

☐ _____ Substitution

☐ Waived

17

Biology Major Checklist
Bachelor of Arts
Integrated General Biology Specialization

Core Course (4 credit hours)

- ☐ Biology 3401 (4) – *Integrated Biology*

Integrated Biology Specialization (28-36 credit hours)

Required (Check 6 boxes)

- ☐ MolGen 4500 (3) or 4606 (4)
☐ Micro 4000† or 4000.01† or 4000.02† (4) or 4100† (5)
☐ Biochem 4511 (4), or 5613 AND 5614 (6)
☐ EEOB 3510 or MolGen 4700 or MolGen 5607 or MolGen 5608 (3) – *Cell Biology*
☐ EEOB 3310 or 3310.01 or 3310.02† (4) – *Evolution*
☐ EEOB 3410† (4) – *Ecology*

Two Advanced (4000+) electives (6-10)

☐ _____ ()

☐ _____ ()

Electives

Embedded Literacies (no additional credit hours)

- | | |
|--|--------------|
| ☐ Advanced Writing | Biology 3401 |
| ☐ Advanced Data Analytics | Biology 3401 |
| ☐ Technology Literacy | Biology 3401 |

TOTAL BioSci HOURS

TOTAL SEMESTER UNITS

Notes:

- Core, specialization, and elective courses must total 32 semester units, and must include three laboratory courses.
- At least 25 of the 32 semester units must be courses in Biochemistry, Biology, EEOB, Microbiology, or Molecular Genetics, and courses outside these departments must be pre-approved by a Biology advisor.
- Electives must be at the 2000 level or above, except for Biology which must be at the 3000 level or above.
- Up to 3 credit hours of research, individual study, or internship may be counted toward the major and, with approval of a major advisor, may be counted as a laboratory course.
- Transfer credit allowed - no more than one half of the credit hours required on the major.
- Honors versions of courses substitute freely.

Addendum 2

Supporting letters from: Dr. Eric Anderman, Interim Dean & Director of the Mansfield Campus; Dr. Terri Bucci Faculty President of the Mansfield Campus; Dr. Harold Fisk, Interim Director of the Center for Life Sciences Education

February 26, 2024

W. Randy Smith, Vice Provost
Council on Academic Affairs
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall
Columbus, OH 43210

Dear Dr. Smith:

As Interim Dean and Director of The Ohio State University at Mansfield, I fully support offering (a) the Bachelor of Science in Biology, and (b) both the Pre-Health Professions and Integrated General Biology specializations with the Bachelor of Arts and Bachelor of Science pathways at this campus. As we continue to work toward increasing our enrollments, our ability to formally offer these programs will greatly support our recruitment efforts.

We have spent a great deal of time ensuring that we have the capacity and support to offer the Biology major and specializations on the Mansfield campus. Each course for these programs has been approved by the relevant departments in Columbus, and we already are offering all of the courses on our campus. We do understand that as we build these programs, enrollments in the advanced courses may initially be low. While this has budgetary implications, we see this as an investment in the future of the campus, and we are planning for some short-term low enrollments in those courses.

In addition to approval to offer this degree and these specializations, we also are requesting formal approval from the Office of Academic Affairs for Ohio State Mansfield to advertise that this major and these specializations can be completed on our Mansfield campus.

Please do not hesitate to reach out to me if there are any questions. Thank you for considering our proposal.

Sincerely,



Eric M. Anderman, Ph.D.
Interim Dean and Director
Professor, Educational Psychology and Quantitative
Research, Evaluation and Measurement



THE OHIO STATE UNIVERSITY
MANSFIELD

The Ohio State University at Mansfield
1760 University Drive
Mansfield, OH 44906-1535

419-755-4011 Phone
419-755-4241 Fax
mansfield.osu.edu

March 8, 2024

Dear Committee members,

I am writing on behalf of the Mansfield faculty to express our enthusiastic support for the proposal to offer Biology majors on our campus, including Bachelor of Art and Bachelor of Science degrees in both the Pre-health Professions Specialization and Integrated General Biology Specialization at The Ohio State University at Mansfield.

Over the years, many of our students have expressed a strong interest in completing a biology degree program at the Mansfield campus, and we are very pleased that we can meet this demand.

The biology faculty have worked together to identify the courses in this major that best leverage their collective expertise; all the courses they identified have been approved for offering at the Mansfield campus. Further, the faculty have prepared our initial course offerings, which are sufficient to allow students to complete these degree programs at Mansfield. We have taught all the courses for the Pre-health Professions Specialization on our campus at least once and only two of the courses in the Integrated General Biology Specialization are left to be incorporated (and we already have the faculty with the expertise). When enrollment is sufficient, we will hire an additional faculty member in biology so we can further expand the course offerings, providing students with additional choices.

Thank you for your consideration,

Terri Teal Bucci, Ph.D.
Mansfield Campus Faculty President
Associate Professor, Mathematics Education
Program Coordinator, Mansfield Education Department
Program Manager, STEAMM Rising



20 March 2024

Dear Dr. Kitchen,

As the administrative home of Ohio State's Biology Major Program, the Center for Life Sciences Education has reviewed the proposal by the Mansfield Campus to begin offering the Biology Major *Pre-Health Professions* and *Integrated General Biology* Specializations and I write to offer our full support. The proposal makes clear that your campus has the instructor resources to offer the necessary classes and support for students in the Biology Major.

We feel that the formal addition of the Biology Major to the Mansfield Campus will add significant value to the student body and should aid in both the recruitment and retention of students to your campus as well as provide students graduating with a Biology Major increased employment opportunities in the region.

The CLSE Curriculum Committee currently has an ad hoc member from the Mansfield Campus, but with the formal adoption of the Biology Major we will make permanent the position on the Committee to ensure that your campus continues to have a voice in the Major curriculum moving forward.

We look forward to supporting the Mansfield Campus and your students with any information or assistance we can provide. Please do not hesitate to reach out.

Sincerely,

Harold A. Fisk, Ph.D.

Associate Professor, Department of Molecular Genetics
Interim Director, Center for Life Sciences Education
The Ohio State University

Addendum 3: Course approvals

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Anatomy
Fiscal Unit/Academic Org Biomedical Informatics - D2510
College/Academic Group The College of Medicine
Level/Career Undergraduate
Course Number/Catalog 2300.01
Course Title Human Anatomy
Transcript Abbreviation Human Anatomy
Course Description Regional study of the basic structure and terminology associated with the human body supplemented with computer-assisted instruction. Laboratory includes demonstrations on prosected human cadavers.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? Yes
Is any section of the course offered Less than 50% at a distance
Grading Basis Letter Grade
Repeatable No
Course Components Independent Study, Laboratory, Lecture
Grade Roster Component Laboratory
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Mansfield, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: Health Science students in CED and ASC.
Exclusions Not open to students with credit for 3300.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0403
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course (e.g., a 5 credit hour course under quarters which becomes a 3 credit hour course under semesters)

List the number and title of current course being converted

Anatomy 199.01: Basic Human Anatomy.

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Develop a solid human anatomical knowledge based required for professional success in the healthcare profession workplace and/or school
- Be able to recognize and identify the major human anatomical structures
- Be able to describe the structure of the human body using the appropriate anatomical terminology
- Be able to apply the anatomical information learned in this course to future clinical or personal health situations they may encounter

Content Topic List

- Human Anatomy
- Anatomical Terminology
- Organ Systems
- Lower Limb
- Upper Limb
- Back
- Head and Neck
- Abdomen
- Pelvis
- Thorax

Sought Concurrence

Attachments

Comments

- Per Associate Dean David Tovey. (by Soave,Melissa A on 03/26/2012 04:11 PM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Newhouse,Melissa Ann	03/26/2012 04:12 PM	Submitted for Approval
Approved	Jones,Kenneth Halliday	03/27/2012 10:57 AM	Unit Approval
Approved	Ruberg,Robert Lionel	03/27/2012 11:13 AM	College Approval
Approved	Newhouse,Melissa Ann	03/28/2012 10:11 AM	OAA Approval
Approved	Alvarez,Joshua A.	03/29/2012 02:53 PM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Biology
Fiscal Unit/Academic Org Introductory Biology - D0326
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1113
Course Title Biological Sciences: Energy Transfer and Development
Transcript Abbreviation Energy Transfr&Dvl
Course Description Exploration of biology and biological principles; evolution and the origin of life, cellular structure and function, bioenergetics, and genetics. A broad introduction to biology comprises both Biology 1113 and 1114.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture
Grade Roster Component Lecture
Credit Available by Exam Yes
Exam Type Advanced Placement Program, EM Tests via Office of Testing
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, **Mansfield**, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites
Exclusions Not open to students with credit for 113.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0499
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course (e.g., a 5 credit hour course under quarters which becomes a 3 credit hour course under semesters)

List the number and title of current course
being converted

Biology 113: Biological Sciences - Energy, Transfer, and Development.

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Biological Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Evolution
- Origin of Life
- The Cell
- Membrane Structure and Function
- Enzymes
- Respiration & Photosynthesis
- Cell Cycle
- Mitosis
- Meiosis
- Mendelian Genetics & Inheritance
- Gene Expression
- Viruses
- Biotechnology

Sought Concurrence

Attachments

Comments

COURSE REQUEST
1113 - Status: ARCHIVED

Last Updated: Alvarez,Joshua A.
08/17/2011

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Misicka,Matthew Alan	01/27/2011 09:30 AM	Submitted for Approval
Revision Requested	Stetson,David Leete	01/28/2011 03:06 PM	Unit Approval
Submitted	Stetson,David Leete	01/28/2011 03:06 PM	Submitted for Approval
Approved	Stetson,David Leete	01/28/2011 03:09 PM	Unit Approval
Approved	Andereck,Claude David	01/31/2011 12:00 PM	College Approval
Approved	Meyers,Catherine Anne	02/18/2011 01:42 PM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/09/2011 01:56 PM	ASC Approval
Approved	Newhouse,Melissa Ann	08/02/2011 01:11 PM	OAA Approval
Approved	Alvarez,Joshua A.	08/17/2011 10:53 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Biology
Fiscal Unit/Academic Org Introductory Biology - D0326
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1114
Course Title Biological Sciences: Form, Function, Diversity, and Ecology
Transcript Abbreviation Form, Funct & Ecol
Course Description Exploration of biology and biological principles; evolution and speciation, diversity in structure, function, behavior, and ecology among prokaryotes and eukaryotes. A broad introduction to biology comprises both Biology 1113 and 1114.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture
Grade Roster Component Lecture
Credit Available by Exam Yes
Exam Type Advanced Placement Program, EM Tests via Office of Testing
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, **Mansfield**, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites
Exclusions Not open to students with credit for 114.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.1301
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course (e.g., a 5 credit hour course under quarters which becomes a 3 credit hour course under semesters)

List the number and title of current course being converted

Biology 114: Form, Function, Diversity, and Ecology.

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Biological Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Mechanisms of Evolution
- Diversity of Life
- Prokaryotes & Eukaryotes
- Plant Form & Function
- Fungi
- Animal Form & Function
- Behavior
- Ecology

Sought Concurrence

Attachments

Comments

- Natural Science: Biological (by Andereck, Claude David on 01/31/2011 12:11 PM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Misicka,Matthew Alan	01/27/2011 09:52 AM	Submitted for Approval
Approved	Stetson,David Leete	01/28/2011 03:17 PM	Unit Approval
Approved	Andereck,Claude David	01/31/2011 03:44 PM	College Approval
Approved	Meyers,Catherine Anne	02/18/2011 01:42 PM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/09/2011 02:00 PM	ASC Approval
Approved	Newhouse,Melissa Ann	08/02/2011 01:13 PM	OAA Approval
Approved	Alvarez,Joshua A.	08/17/2011 11:00 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Biology
Fiscal Unit/Academic Org Introductory Biology - D0326
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 3401
Course Title Integrated Biology
Transcript Abbreviation Integrated Biology
Course Description A case studies approach is used to gain a better understanding of biological concepts and principles. This course is designed for biology majors.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture, Recitation
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 1113 (113) and 1114 (114), and Chem 1220 (123), and Math 1150 (150), and permission of instructor.
Exclusions Not open to students with credit for 401.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0101
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course sequence (e.g., a 3-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 1-semester course)

List the current and proposed sequences by number and title

Biology 401: Integrated Biology I; Biology 402: Intergrated Biology II.

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Scientific Inquiry
- Biocomplexity
- Biodiversity & Unity
- Evolution & Heredity
- Structure & Function
- Technology & Society
- Fundamental connectedness of chemistry, physics, mathematics, and biology

Sought Concurrence

Attachments

Comments

COURSE REQUEST
3401 - Status: ARCHIVED

Last Updated: Alvarez,Joshua A.
08/17/2011

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Misicka,Matthew Alan	01/27/2011 09:57 AM	Submitted for Approval
Revision Requested	Stetson,David Leete	01/28/2011 03:33 PM	Unit Approval
Submitted	Stetson,David Leete	01/28/2011 03:33 PM	Submitted for Approval
Approved	Stetson,David Leete	01/28/2011 03:34 PM	Unit Approval
Revision Requested	Andereck,Claude David	01/31/2011 12:11 PM	College Approval
Submitted	Stetson,David Leete	01/31/2011 03:48 PM	Submitted for Approval
Approved	Stetson,David Leete	01/31/2011 03:48 PM	Unit Approval
Revision Requested	Andereck,Claude David	01/31/2011 03:54 PM	College Approval
Submitted	Stetson,David Leete	02/01/2011 11:10 AM	Submitted for Approval
Approved	Stetson,David Leete	02/01/2011 11:11 AM	Unit Approval
Approved	Andereck,Claude David	02/01/2011 12:10 PM	College Approval
Approved	Nolen,Dawn	02/09/2011 04:54 PM	ASCCAO Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	04/01/2011 12:19 PM	ASC Approval
Submitted	Stetson,David Leete	04/01/2011 12:25 PM	Submitted for Approval
Approved	Misicka,Matthew Alan	04/01/2011 01:24 PM	Unit Approval
Approved	Andereck,Claude David	04/01/2011 01:33 PM	College Approval
Approved	Vankeerbergen,Bernadette Chantal	04/08/2011 02:56 PM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/09/2011 02:01 PM	ASC Approval
Approved	Newhouse,Melissa Ann	08/02/2011 01:15 PM	OAA Approval
Approved	Alvarez,Joshua A.	08/17/2011 11:07 AM	OUR Approval

Term Information

Effective Term Autumn 2018

General Information

Course Bulletin Listing/Subject Area Biochemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 4511
Course Title Introduction to Biological Chemistry
Transcript Abbreviation Intro to Biol Chem
Course Description An introductory course in biochemistry dealing with the molecular basis of structure, metabolism, genetic replication, transcription, and translation in plants, animals, and microorganisms.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture, Recitation
Grade Roster Component Lecture
Credit Available by Exam Yes
Exam Type Departmental Exams
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: Chem 1220 (123) or 1250 (125), and 2510 (252) or 2310 (231), and one semester of Biological Sciences; or permission of instructor.
Exclusions Not open to students with credit for 511.
Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0202
Subsidy Level Baccalaureate Course
Intended Rank Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Properties of water, pH, and buffers
- Properties of amino acids, the structure of proteins, and the properties and mechanisms of enzymes
- Chemistry and function of the common coenzymes and vitamins
- Structure and biochemistry of carbohydrates, lipids, and biological membranes
- Introduction to metabolism
- Glycolysis and additional carbohydrate metabolism
- The citric acid cycle, electron transport, and bioenergetics
- The biochemistry of photosynthesis
- Lipid and amino acid metabolism.
- Structure and biochemistry of nucleic acids
- DNA replication
- Transcription and RNA processing
- The process of translation and protein synthesis
- Overview of recombinant DNA technology

Sought Concurrence

Attachments

Comments

- This version contains changes updated automatically from the Student Information System. *(by Synchronized from SIS on 06/26/2018 10:57 AM)*

Workflow Information

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Chemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1210
Course Title General Chemistry I
Transcript Abbreviation General Chem 1
Course Description First course for science majors, covering dimensional analysis, atomic structure, the mole, stoichiometry, chemical reactions, thermochemistry, electron configuration, bonding, molecular structure, gases, liquids, solids, and solutions.
Semester Credit Hours/Units Fixed: 5

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture, Recitation
Grade Roster Component Laboratory
Credit Available by Exam Yes
Exam Type Advanced Placement Program, International Baccalaureate, EM Tests via Office of Testing
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, **Mansfield**, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: One unit of high school chemistry and eligibility to enroll in Math 1150 (150).
Exclusions Not open to students with credit for Chemistry 122, 1250, 1610 (161) or 1910H (201H).
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0501
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course sequence (e.g., a 3-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 1-semester course)

List the current and proposed sequences by number and title

Chemistry 121 and part of Chemistry 122

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Physical Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Courses in natural sciences foster an understanding of the principles, theories, and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment

Content Topic List

- Dimensional analysis
- Atomic structure
- The mole
- Stoichiometry
- Chemical reactions
- Thermochemistry
- Electron configuration
- Bonding
- Molecular structure
- Acids/bases
- Redox reactions
- Gases
- Liquids
- Solids
- Solutions
- Colligative properties

Sought Concurrence

Attachments

Comments

COURSE REQUEST
1210 - Status: ARCHIVED

Last Updated: Bour,Andrea S
08/01/2011

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hadad,Christopher Martin	03/25/2011 03:40 PM	Submitted for Approval
Approved	Coleman,Robert S	03/25/2011 04:05 PM	Unit Approval
Approved	Andereck,Claude David	03/28/2011 10:46 AM	College Approval
Approved	Meyers,Catherine Anne	04/13/2011 09:29 AM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/08/2011 01:34 PM	ASC Approval
Approved	Newhouse,Melissa Ann	07/28/2011 02:25 PM	OAA Approval
Approved	Bour,Andrea S	08/01/2011 12:11 PM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Chemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1220
Course Title General Chemistry II
Transcript Abbreviation General Chem 2
Course Description Continuation of 1210 for science majors, covering kinetics, chemical equilibrium, solubility and ionic equilibria, qualitative analysis, thermodynamics, electrochemistry, descriptive chemistry, coordination compounds, and nuclear chemistry.
Semester Credit Hours/Units Fixed: 5

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture, Recitation
Grade Roster Component Laboratory
Credit Available by Exam Yes
Exam Type EM Tests via Office of Testing
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, **Mansfield**, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 121, 1210, 1250, 1610 (161) or 1910H (201H) and eligibility to enroll in Math 1150 (150).
Exclusions Not open to students with credit for Chemistry 123, 1620 (163) or 1920H (203H).
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0501
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course sequence (e.g., a 3-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 1-semester course)

List the current and proposed sequences by number and title

Part of Chemistry 122 and all of Chemistry 123

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Physical Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Courses in natural sciences foster an understanding of the principles, theories, and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment

Content Topic List

- Kinetics
- Chemical equilibrium
- Solubility and ionic equilibria
- Qualitative analysis
- Thermodynamics
- Electrochemistry
- Descriptive chemistry
- Coordination compounds
- Nuclear chemistry

Sought Concurrence

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hadad,Christopher Martin	03/25/2011 03:40 PM	Submitted for Approval
Approved	Coleman,Robert S	03/25/2011 04:05 PM	Unit Approval
Approved	Andereck,Claude David	03/28/2011 10:47 AM	College Approval
Approved	Meyers,Catherine Anne	04/13/2011 09:29 AM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/08/2011 01:36 PM	ASC Approval
Approved	Newhouse,Melissa Ann	07/29/2011 02:20 PM	OAA Approval
Approved	Bour,Andrea S	08/02/2011 10:00 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org Evolution, Ecology & Org Bio - D0390
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 2520
Course Title Human Physiology
Transcript Abbreviation Human Physiology
Course Description A survey of the human nervous system, sense organs, muscle function, circulation, respiration, digestion, metabolism, kidney function, and reproduction.
Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 3 sem cr hrs in Biological Sciences.
Exclusions Not open to students with credit for 232.
Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0901
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course (e.g., a 5 credit hour course under quarters which becomes a 3 credit hour course under semesters)

List the number and title of current course being converted

EEOB 232: Introductory Physiology

Requirement/Elective Designation

General Education course:

Biological Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Homeostasis and feedback control
- Membrane structure and transport
- Energy regulation
- Nervous system
- Muscle structure and function
- Endocrine system
- Circulatory system
- Respiratory system
- Renal system
- Immune system
- Reproductive system

Sought Concurrence

No

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lanno,Roman P.	03/25/2012 04:22 PM	Submitted for Approval
Approved	Lanno,Roman P.	03/25/2012 04:22 PM	Unit Approval
Approved	Hadad,Christopher Martin	03/25/2012 04:42 PM	College Approval
Approved	Vankeerbergen,Bernadette Chantal	03/26/2012 09:42 AM	ASCCAO Approval
Approved	Fink,Steven Scott	03/27/2012 09:06 AM	ASC Approval
Approved	Newhouse,Melissa Ann	03/27/2012 09:27 AM	OAA Approval
Approved	Alvarez,Joshua A.	03/29/2012 03:02 PM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org Evolution, Ecology & Org Bio - D0390
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 3310
Course Title Evolution
Transcript Abbreviation Evolution
Course Description Basic conceptual issues and processes in evolution with an emphasis on the ecological basis of adaptation and consequences of natural selection. Also available summer term at Stone Lab.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week
Flexibly Scheduled Course Sometimes
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: Biology 1114 or 1114H, or permission of instructor.
Exclusions Not open to students with credit for 400.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.1303
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior

Quarters to Semesters

Quarters to Semesters

Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses

List the current courses by number and title that are to be subsumed into proposed course

EEOB 400: Evolution

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Variation, fitness, natural selection and adaptation
- Randomness and evolution: genetic drift and neutral theory
- Evolution of sex, sexual selection
- Group selection and sociality
- Species and speciation
- Phylogeny and the history of life on Earth
- Applications: conservation and human evolution

Sought Concurrence

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lanno,Roman P.	04/14/2011 01:55 PM	Submitted for Approval
Approved	Lanno,Roman P.	04/14/2011 02:12 PM	Unit Approval
Approved	Andereck,Claude David	04/18/2011 02:52 PM	College Approval
Approved	Hanlin,Deborah Kay	05/03/2011 02:25 PM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/09/2011 11:33 AM	ASC Approval
Approved	Newhouse,Melissa Ann	01/03/2012 02:21 PM	OAA Approval
Approved	Baird,Zachariah A	01/03/2012 04:42 PM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area	Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org	Evolution, Ecology & Org Bio - D0390
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	3410
Course Title	Ecology
Transcript Abbreviation	Ecology
Course Description	Distribution and abundance of species, population dynamics, community ecology, ecosystem dynamics, and applied perspectives. Also available summer term at Stone Lab.
Semester Credit Hours/Units	Fixed: 4

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week
Flexibly Scheduled Course	Sometimes
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: Biology 1114 or 1114H, or permission of instructor.
Exclusions	Not open to students with credit for 503.01, 503.02, and 503.03.
Electronically Enforced	No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	26.1301
Subsidy Level	Baccalaureate Course
Intended Rank	Sophomore, Junior

Quarters to Semesters

Quarters to Semesters

Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses

List the current courses by number and title that are to be subsumed into proposed course

EEOB 503.01: Introduction to Ecology - Lecture; EEOB 503.02: Introduction to Ecology - Lab; EEOB 503.03: Introduction to Ecology - Lecture and Lab.

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Natural selection and evolution
- Sexual vs. asexual selection
- Physiological, behavioral, population, community and ecosystem ecology
- Autotrophs vs. heterotrophs
- Observational vs. experimental approaches
- Statistics and ecological modeling
- Regional and global ecology
- Biodiversity and extinction and applied ecology

Sought Concurrence

No

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lanno,Roman P.	04/14/2011 02:02 PM	Submitted for Approval
Approved	Lanno,Roman P.	04/14/2011 02:12 PM	Unit Approval
Approved	Andereck,Claude David	04/18/2011 02:55 PM	College Approval
Approved	Hanlin,Deborah Kay	05/03/2011 03:34 PM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/09/2011 11:33 AM	ASC Approval
Approved	Newhouse,Melissa Ann	01/03/2012 01:55 PM	OAA Approval
Approved	Baird,Zachariah A	01/04/2012 09:07 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org Evolution, Ecology & Org Bio - D0390
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 3510
Course Title Cellular and Developmental Biology
Transcript Abbreviation Cell Develop Biol
Course Description Introduction to the structure and function of animal cells, and to patterns of early development in vertebrates and invertebrates.
Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 3310, and Biology 1113 or 1113H.
Exclusions Not open to students with credit for 415 and MolGen 5602.
Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0401
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses

List the current courses by number and title that are to be subsumed into proposed course

EEOB 415: Principles of Animal Cellular and Developmental Biology

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Cells and cellular chemistry
- The plasma membrane, membrane transport
- Genetic mechanisms and protein synthesis
- Organelles, intracellular compartments and transport
- Cellular communication
- Energy production and consumption
- The cytoskeleton
- Cell cycle, mitosis, and apoptosis
- Cell-to-cell contact and extracellular environment
- Visualizing cells and cellular processes
- Cancer cell biology
- Germ cell, fertilization and cloning
- Development, differentiation and patterning
- Immune cell biology
- Stem cell biology

Sought Concurrence

No

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lanno,Roman P.	04/14/2011 02:05 PM	Submitted for Approval
Approved	Lanno,Roman P.	04/14/2011 02:11 PM	Unit Approval
Approved	Andereck,Claude David	04/18/2011 03:04 PM	College Approval
Approved	Hanlin,Deborah Kay	04/29/2011 04:58 PM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/09/2011 11:33 AM	ASC Approval
Approved	Newhouse,Melissa Ann	01/03/2012 02:00 PM	OAA Approval
Approved	Baird,Zachariah A	01/04/2012 09:18 AM	OUR Approval

Email Thread about EEOB permission on 4520, 4510, and 3520 (Sept 2022 through March 2023)

From: Hamilton, Ian <hamilton.598@osu.edu>
Sent: Friday, March 3, 2023 3:15 PM
To: Kitchen, Dawn <kitchen.79@osu.edu>
Subject: RE: permission requested

Hi Dawn,

I've submitted the request. I'll let you know when I hear back.

Best,
Ian



Ian Hamilton

Professor

Vice Chair of Undergraduate Studies, EEOB

College of Arts & Sciences

Department of Evolution, Ecology and Organismal Biology & Department of Mathematics

390 Aronoff Laboratory, 318 W 12th Ave, Columbus, OH 43210

hamilton.598@osu.edu

Pronouns: he/him/his

From: Kitchen, Dawn <kitchen.79@osu.edu>
Sent: Friday, March 3, 2023 1:07 PM
To: Hamilton, Ian <hamilton.598@osu.edu>
Subject: RE: permission requested

Hi Ian,

I hope this finds you well! I again want to thank you so much for the help (below). Unfortunately, we made an error. Agus was on leave when Carol Landry and I were pulling out thoughts together about this and turns out Agus would like to teach 4520, not 4510. Comparative PHYSIOLOGY not comparative anatomy. I think he felt that there were options for Anatomy here (regular plus micro), but not enough for Physiology.

Could we ask you to seek permission to add us to that course as well? He would not offer until next Spring, so there is not a huge rush.

Thanks again. I hope you have a wonderful Spring!
Dawn



THE OHIO STATE UNIVERSITY

Dawn M. Kitchen, Ph.D.

Associate Dean, Mansfield Campus
Professor of Anthropology and EEOB

The Ohio State University

206E Riedl Hall, 1760 University Drive, Mansfield, OH 44906
419-755-4027 Office / 920-344-7754 Mobile
kitchen.79@osu.edu / mansfield.osu.edu

Please email Tina Lillo (lillo.9@osu.edu) if you would like to schedule an appointment.

Note: I may be working different hours than you. You are not expected to reply outside of your usual schedule.

Pronouns: she/her/hers / Honorific: Dr./Prof.



Buckeyes consider the environment before printing.

From: Hamilton, Ian <hamilton.598@osu.edu>
Sent: Wednesday, October 12, 2022 12:47 PM
To: Kitchen, Dawn <kitchen.79@osu.edu>
Subject: RE: permission requested

And now 4510 has been approved.
Ian



THE OHIO STATE UNIVERSITY

Ian Hamilton

Professor
Vice Chair of Undergraduate Studies, EEOB
College of Arts & Sciences
Department of Evolution, Ecology and Organismal Biology & Department of Mathematics
390 Aronoff Laboratory, 318 W 12th Ave, Columbus, OH 43210

hamilton.598@osu.edu

Pronouns: he/him/his

From: Hamilton, Ian

Sent: Wednesday, October 12, 2022 11:49 AM

To: Kitchen, Dawn <kitchen.79@osu.edu>

Subject: RE: permission requested

Hi Dawn,

I am not sure why it took so long to get through at OAA, but I just received notification from the registrar that the change to 3520 is fully approved. I would guess that 4510 will follow shortly, as it was also at the registrar as of yesterday.

Ian



Ian Hamilton

Professor

Vice Chair of Undergraduate Studies, EEOB

College of Arts & Sciences

Department of Evolution, Ecology and Organismal Biology & Department of Mathematics

390 Aronoff Laboratory, 318 W 12th Ave, Columbus, OH 43210

hamilton.598@osu.edu

Pronouns: he/him/his

From: Kitchen, Dawn <kitchen.79@osu.edu>

Sent: Tuesday, September 27, 2022 11:55 AM

To: Hamilton, Ian <hamilton.598@osu.edu>

Subject: RE: permission requested

You are the best!!

I hope all is well with you otherwise,

Dawn

From: Hamilton, Ian <hamilton.598@osu.edu>

Sent: Tuesday, September 27, 2022 11:38 AM

To: Kitchen, Dawn <kitchen.79@osu.edu>

Subject: RE: permission requested

Hi Dawn,

No problem. I have just submitted the requests.

Best regards,

Ian



Ian Hamilton

Professor

Vice Chair of Undergraduate Studies, EEOB

College of Arts & Sciences

Department of Evolution, Ecology and Organismal Biology & Department of Mathematics

390 Aronoff Laboratory, 318 W 12th Ave, Columbus, OH 43210

hamilton.598@osu.edu

Pronouns: he/him/his

From: Kitchen, Dawn <kitchen.79@osu.edu>

Sent: Tuesday, September 27, 2022 11:16 AM

To: Hamilton, Ian <hamilton.598@osu.edu>

Subject: permission requested

Dear Ian,

This is Dawn Kitchen, from Mansfield. I am sorry to bother you, but I am in a bit of a panic. I swore that I checked long ago and that EEOB 4510 (comparative vertebrate anatomy) and EEOB 3520 (microscopic anatomy) were approved for offering on the Mansfield campus. However, I just went to look at them and they are only approved for teaching on Marion's campus. I would really like to offer one of these courses this Spring. As you know, Agus Munoz Garcia is on our campus and is qualified to teach both of these courses (I think he in fact taught one for Columbus long ago). We have place bound students on our campus who are trying to work through part or all of the Biology major while on our campus and need this course. Eventually most of our students make a campus change but we do not want to see these students get delayed in their progress toward a degree and given the pandemic they are keen to stay close to family. Could we ask you to request a course change to include us as a campus of offering for those two classes via curriculum.osu.edu? We would very much appreciate it. This change is considered minor according to Randy Smith, so it should work its way through the approval process quickly so that we can get one of them listed for these students for Spring.

Thank you so much in advance for your help!!

Dawn



Dawn M. Kitchen, PhD

Associate Dean, Mansfield Campus

Professor, Anthropology Department

206E Riedl Hall, 1760 University Drive, Mansfield, OH 44906

(419)755-4027; kitchen.79@osu.edu / <https://mansfield.osu.edu>

Please email Tina Lillo (lillo.9@osu.edu) if you need an appointment with me

Buckeyes consider the environment before printing.

*I sometimes work odd hours, so **please do not feel the need to read or reply to my messages outside your own normal work hour; I am happy to wait.***

Term Information

Effective Term Spring 2023

General Information

Course Bulletin Listing/Subject Area	Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org	Evolution, Ecology & Org Bio - D0390
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	3520
Course Title	Microscopic Anatomy
Transcript Abbreviation	Micro Anatomy
Course Description	Examination and analysis of the functional morphology of cells and tissues of vertebrate animals, with emphasis on mammalian histology.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Laboratory, Lecture
Grade Roster Component	Laboratory
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Mansfield, Marion

Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: Biology 1113, 1114, 1113H, or 1114H.
Exclusions	
Electronically Enforced	Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	26.0401
Subsidy Level	Baccalaureate Course
Intended Rank	Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Become competent and confident in use of a microscope
- Become familiar with techniques used in preparation of tissue for microscopic analysis
- Learn to recognize cells and structures
- Be able to relate structure to function
- Improve their ability to ask and answer insightful questions, including independent use of outside resources
- Improve their ability to communicate their thoughts and understanding of concepts

Content Topic List

- Structural continuity among the vertebrates
- Microscopic anatomy of cells, tissues, and organs
- Cellular physiology of tissues and organs
- Integrated physiology of tissues and organs

Sought Concurrence

No

Attachments

- EEOB 3520 Syllabus.pdf
(Syllabus. Owner: Hamilton,Ian M)
- EEOB Curriculum Maps April 2022.xlsx: Curriculum Maps
(Other Supporting Documentation. Owner: Hamilton,Ian M)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hamilton,Ian M	09/27/2022 11:36 AM	Submitted for Approval
Approved	Hamilton,Ian M	09/27/2022 11:37 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	09/27/2022 12:16 PM	College Approval
Approved	Vankeerbergen,Bernadette Chantal	09/27/2022 12:16 PM	ASCCAO Approval
Approved	Martin,Andrew William	09/27/2022 12:52 PM	ASC Approval
Approved	Reed,Kathryn Marie	10/08/2022 05:55 PM	OAA Approval
Approved	Guthrie,Emily J	10/12/2022 11:46 AM	OUR Approval

Term Information

Effective Term Spring 2023

General Information

Course Bulletin Listing/Subject Area Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org Evolution, Ecology & Org Bio - D0390
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 4510
Course Title Comparative Vertebrate Anatomy
Transcript Abbreviation Comp Vert Anatomy
Course Description Evolutionary trends within vertebrates will be revealed through a study of anatomical homology across representative taxa. Concepts will be expanded upon as students explore the hands-on methods of comparative anatomical study, including dissection and skeletal staining.
Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture
Grade Roster Component Laboratory
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Mansfield, Marion

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 2 courses in Biological Sciences.
Exclusions
Electronically Enforced Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0403
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Students will understand how anatomy is related to the evolution of the large and diverse taxon known as Vertebrata.
- Students will gain familiarity with how anatomical structure and function has evolved over geological time.
- Students will acquire hands-on skills in dissection and anatomical sketching.

Content Topic List

- Anatomical structure of protochordates (segue to vertebrata)
 - Homology (anatomical) concept, ontogeny and phylogeny
 - Methods of comparative vertebrate anatomy (e.g., dissection, clearing and staining, etc.)
 - Evolutionary trends revealed by anatomy: radiation of major taxa, tweaking of homologous structures as it relates to ecology (lifestyle), anatomical homoplasy
 - Evolutionary milestones in the history of vertebrates (e.g., the origin of jaws and paired appendages, transition to land, etc.)
 - Anatomical terminology
 - Major body systems (skeleton, muscles, viscera, etc): Identifications of structure, function and homology
- No

Sought Concurrence

Attachments

- EEOB 4510 Syllabus.pdf: Syllabus
(Syllabus. Owner: Hamilton, Ian M)
- EEOB Curriculum Maps April 2022.xlsx: Curriculum Maps
(Other Supporting Documentation. Owner: Hamilton, Ian M)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hamilton, Ian M	09/27/2022 11:33 AM	Submitted for Approval
Approved	Hamilton, Ian M	09/27/2022 11:37 AM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	09/27/2022 12:14 PM	College Approval
Approved	Vankeerbergen, Bernadette Chantal	09/27/2022 12:15 PM	ASCCAO Approval
Approved	Martin, Andrew William	09/27/2022 12:15 PM	ASC Approval
Approved	Reed, Kathryn Marie	10/08/2022 05:53 PM	OAA Approval
Approved	Guthrie, Emily J	10/12/2022 12:43 PM	OUR Approval

Term Information

Effective Term Spring 2024

General Information

Course Bulletin Listing/Subject Area	Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org	Evolution, Ecology & Org Bio - D0390
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	4520
Course Title	Comparative Physiology
Transcript Abbreviation	Comp Physiology
Course Description	Functional systems in invertebrates and vertebrates: respiration, circulation, water, ion, and energy balance; communication; locomotion; and reproduction.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture, Recitation
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield

Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: Biology 1114 or 1114H, and 1 course in Biological Sciences.
Exclusions	
Electronically Enforced	Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	26.0707
Subsidy Level	Baccalaureate Course
Intended Rank	Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Students will be introduced to the environmental challenges experienced by organisms, and will be able to explain how organisms respond to and resolve those challenges at the cellular and whole-organism level
- Students will understand physiological processes that have evolved to maintain animal life in varied environments and how these processes interact and provide multiple solutions that allow animals to live in diverse environments
- Students will solve quantitative problems, use a wide array of resources, work in groups and independently, and will communicate in the discipline

Content Topic List

- Different evolutionary solutions to environmental challenges
- Relation of organism's size to its physiological challenges
- Control of transport across the cell membrane
- Energy metabolism
- Strategies for coping with different thermal regimes
- Movement (muscles, relation to size, nervous control)
- Nervous system (resting potential, action potential)
- Respiration and circulation
- Osmoregulation
- Case studies in ecological physiology

Sought Concurrence

No

Attachments

- 2022_AUTUMN_EEOB_4520_NorrisR.pdf: Syllabus - Lima
(Syllabus. Owner: Hamilton,Ian M)
- EEOB Curriculum Maps April 2022.xlsx: Curriculum Maps
(Other Supporting Documentation. Owner: Hamilton,Ian M)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hamilton,Ian M	03/03/2023 03:13 PM	Submitted for Approval
Approved	Hamilton,Ian M	03/03/2023 03:14 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	03/04/2023 05:33 PM	College Approval
Approved	Vankeerbergen,Bernadette Chantal	03/04/2023 05:33 PM	ASCCAO Approval
Approved	Martin,Andrew William	03/04/2023 09:29 PM	ASC Approval
Approved	Reed,Kathryn Marie	03/07/2023 03:55 PM	OAA Approval
Approved	Gable,Michael Philip	03/24/2023 10:48 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Microbiology
Fiscal Unit/Academic Org Microbiology - D0350
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 4000
Course Title Basic and Practical Microbiology
Transcript Abbreviation Bsc & Prac Microbi
Course Description Provides an understanding of microorganisms and their interaction with the human experience.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Mansfield

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 3 cr hrs in Biology.
Exclusions Not open to students with credit for Micrbiol 509.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0502
Subsidy Level General Studies Course
Intended Rank Sophomore, Junior, Senior, Masters

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course (e.g., a 5 credit hour course under quarters which becomes a 3 credit hour course under semesters)

List the number and title of current course being converted

Micrbiol 509: Basic and Practical Microbiology.

Requirement/Elective Designation

General Education course:

Biological Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Describe the basic morphology of bacteria, their growth requirements, and how they adapt and reproduce
- Explain how environmental factors affect the culturing of microbes in a laboratory setting
- Understand the diversity of metabolism that exists in bacteria and describe the unique metabolic ways used only in the prokaryotic world
- Describe bacterial genetics with the emphasis on two main processes responsible for the diversity in the bacterial world: mutations and bacterial gene transfer
- Describe the basic morphology of viruses, how they reproduce and cause diseases
- Apply appropriate aseptic techniques when completing any exercise in laboratory
- Correctly carry out basic microbiology laboratory techniques including: staining, production of pure cultures, production of dilution series and enumeration of microbes, the filter disk method of testing bacterial susceptibility, and ELISA tests
- Correctly and safely use any equipment needed to carry out exercises in laboratory
- Demonstrate how to identify unknown bacteria using tests, media, and techniques introduced in laboratory
- Explain how unknown bacteria are identified through submission of a laboratory report that includes a flow chart and interpretation of results
- Explain how microbes are involved both constructively and destructively in foods
- Explain microbial symbiosis and describe some of the normal microbiota of the nose, mouth, and skin based on cultured samples from individual students
- Understand infection and disease control and the preventive techniques necessary to limit the spread of bacteria and viruses
- Describe and explain various ways to control the growth of microbes
- Describe how to track the spread of a simulated disease, and how to determine the index case
- Describe the systems of natural, or non-specific, and adaptive immunity and how they protect humans from disease
- Describe how microbes overcome the host body's immune mechanisms and how they are transmitted

Content Topic List

- Functional anatomy of prokaryotic cells
- Microbial growth and metabolism
- Microbial genetics
- Viruses
- Control of microbial growth and antimicrobial drugs
- Innate and adaptive immunity
- Microbial mechanisms of pathogenicity
- Principles of disease and epidemiology
- Laboratory exercises: microscopes and their uses
- Laboratory exercises: microbial staining techniques and applications
- Laboratory exercises: isolation of organisms from mixed cultures, nutritional requirements, use of differential and selective media, and identification of unknown bacteria
- Laboratory exercises: environmental factors affecting growth: oxygen, temperature, pH, and osmolarity
- Laboratory exercises: control of microbial growth
- Laboratory exercises: microbes in food
- Laboratory exercises: host interactions: symbiosis, parasitism, mutualism, human microbiome, and immune responses
- Laboratory exercises: epidemiology

Sought Concurrence

Attachments

- M509_SampleSyllabus.pdf: Sample Syllabus

(Syllabus. Owner: Daniels,Charles John)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Daniels,Charles John	06/14/2011 11:08 AM	Submitted for Approval
Approved	Daniels,Charles John	06/14/2011 11:09 AM	Unit Approval
Approved	Andereck,Claude David	06/15/2011 03:03 PM	College Approval
Approved	Meyers,Catherine Anne	06/17/2011 09:07 AM	ASCCAO Approval
Approved	Meyers,Catherine Anne	07/08/2011 10:22 AM	ASC Approval
Approved	Newhouse,Melissa Ann	07/15/2011 02:35 PM	OAA Approval
Approved	Alvarez,Joshua A.	08/23/2011 02:47 PM	OUR Approval

Email Thread about MolGen permission on General Genetics 4500 (Dec 1999 through Feb 2020)

-----Original Message-----

From: Cole, Susan <cole.354@osu.edu>

Sent: Tuesday, February 11, 2020 2:36 PM

To: Kitchen, Dawn <kitchen.79@osu.edu>; Vaessin, Harald <vaessin.1@osu.edu>

Subject: FW: Course Change Request Approved: MOLGEN 4500

Molgen 4500 offerings at Mansfield approved through curriculum.

Best,

Susan

Susan Cole, Ph.D.

Professor and Vice Chair

Director of Undergraduate Studies

Department of Molecular Genetics, Ohio State University

282 Biological Sciences Building

484 W 12th Ave

Columbus, OH 43210

phone: 614-292-3276

cole.354@osu.edu

On 2/11/20, 2:35 PM, "PGM and Course" <pgmandcourse@osu.edu> wrote:

Dear Cole,Susan Elizabeth,

The Office of the University Registrar has entered the changes requested into the course catalog for course: MOLGEN 4500

The change(s) to the course (including withdrawal if requested) are now in effect for scheduling Autumn 2020 and subsequent terms.

ATTN Academic Departments

If you have any questions about the course or the scheduling process, please contact the University Registrar: registrar@osu.edu.

From: Cole, Susan <cole.354@osu.edu>

Sent: Wednesday, February 5, 2020 8:21 AM

To: Kitchen, Dawn <kitchen.79@osu.edu>

Cc: Vaessin, Harald <vaessin.1@osu.edu>

Subject: Re: offering MolGen 4500 on the Mansfield campus

Dawn,

This request was submitted to curriculum.osu.edu this morning.

Best,

Susan

Susan Cole, Ph.D.
Professor and Vice Chair
Director of Undergraduate Studies
Department of Molecular Genetics, Ohio State University
282 Biological Sciences Building
484 W 12th Ave
Columbus, OH 43210
phone: 614-292-3276
cole.354@osu.edu

From: "Kitchen, Dawn" <kitchen.79@osu.edu>
Date: Monday, February 3, 2020 at 4:41 PM
To: "Cole, Susan" <cole.354@osu.edu>
Cc: "Vaessin, Harald" <vaessin.1@osu.edu>
Subject: Re: offering MolGen 4500 on the Mansfield campus

Thank you! Wonderful news. Yes, we planned for Suma to be the instructor for this one. We just listed Carol in case a back up plan was ever needed.

The next step would be for you to submit a course change request via curriculum.osu.edu. Attached is a copy of the details submitted on the form to add this course to Marion back in March of 2016 (I found it here: <https://curriculum.osu.edu/curriculum/course.jsf?id=1030066&scid=1152>). Only the part in green highlights would be where you would need to make changes, and I took the liberty of giving you some ideas of what to say, but it's up to you of course.

It takes a while for these kinds of changes to get through the list of folks who need to approve. Please let me know when you hear back from them so I can get Suma started on prepping it. I am not sure if we would offer it as soon as next Fall, but I put that date down on the form just to be sure.

Best wishes and thanks again!!

Dawn

Dawn M. Kitchen, PhD
Associate Dean, Mansfield Campus
Professor of Anthropology
The Ohio State University

Sent from my iPhone

On Feb 3, 2020, at 8:26 AM, Cole, Susan <cole.354@osu.edu> wrote:

Dawn,

Harald and I have reviewed the CVs. We don't see any problems with either of them, although Suma Robinson seems a bit better positioned to teach Molgen4500.

Let us know how you want to proceed next.

Best,

Susan

Susan Cole, Ph.D.
Professor and Vice Chair
Director of Undergraduate Studies
Department of Molecular Genetics, Ohio State University
282 Biological Sciences Building
484 W 12th Ave
Columbus, OH 43210
phone: 614-292-3276
cole.354@osu.edu

From: "Kitchen, Dawn" <kitchen.79@osu.edu>

Date: Friday, January 10, 2020 at 2:21 PM

To: "Cole, Susan" <cole.354@osu.edu>, "Vaessin, Harald" <vaessin.1@osu.edu>

Subject: RE: offering MolGen 4500 on the Mansfield campus

Dear Susan and Harald,

I am so sorry for my delayed reply. After I spoke with you, things went south with sickness hitting my family and then holiday madness.

Here are the C.V.s of the faculty I mentioned with an interest in teaching the course on our campus.

Thank you so much for your consideration of this request!

Best wishes and happy new year,
Dawn

From: Kitchen, Dawn

Sent: Tuesday, December 17, 2019 11:30 AM

To: Cole, Susan <cole.354@osu.edu>; Vaessin, Harald <vaessin.1@osu.edu>

Subject: RE: offering MolGen 4500 on the Mansfield campus

Yes, awesome. Let me get them and get back to you ASAP.

Thanks for your speedy reply – I know holidays and finals are stressful time.

More soon,
Dawn

From: Cole, Susan <cole.354@osu.edu>

Sent: Tuesday, December 17, 2019 10:39 AM

To: Vaessin, Harald <vaessin.1@osu.edu>; Kitchen, Dawn <kitchen.79@osu.edu>

Subject: Re: offering MolGen 4500 on the Mansfield campus

Dear Dawn,

Harald passed this on to me as Director of undergrad studies for the department. I think in principle, we would not have any issues with offering the class at Mansfield, but it would be good to see the CVs of the faculty who are interested in leading it.

Thanks!

Susan

Susan Cole, Ph.D.
Professor and Vice Chair
Director of Undergraduate Studies
Department of Molecular Genetics, Ohio State University
282 Biological Sciences Building
484 W 12th Ave
Columbus, OH 43210
phone: 614-292-3276
cole.354@osu.edu

From: Kitchen, Dawn <kitchen.79@osu.edu>

Sent: Monday, December 16, 2019 4:00 PM

To: Vaessin, Harald <vaessin.1@osu.edu>

Subject: offering MolGen 4500 on the Mansfield campus

Dear Dr. Vaessin,

I am the new Associate Dean of the Mansfield campus. I am also a Professor in OSU's Anthropology Department and an affiliated faculty member of the EEOB Department.

I am writing to ask for permission to add Ohio State Mansfield to the "Campus of Offering" for MolGen 4500. Currently, this course is approved on both the Lima and Marion campuses. Like these other two campuses, we have students who are place-bound either temporarily or permanently. Some of those students who would like to major in biology and Mol Gen 4500 is a required course, so allowing them to take it here means they are not delaying time to graduate. By allowing us to offer the course, we would be no threat to your enrollments because we put restrictions on our courses so that students from Columbus cannot take our courses. Ultimately, we may be able to offer the full four year degree in

Biology on our campus (we are in the midst of bids on building an organic chem lab) and this is exciting because we attract students from populations traditionally underrepresented in the STEM fields (e.g., first generation, Pell eligible, students of color) who can't go to Columbus.

We have several qualified faculty on campus who could teach this Genetics course. Of those faculty, two are especially interested in working on it – Dr. Carol Landry and Dr. Suma Robinson. I am happy to share a c.v. from each if you are interested. We would not want to offer the course until at least Spring 2021 if not the next year so there would be plenty of time for course preparation by our faculty.

We hope that you will be in favor of this change and will help us apply via *curriculum.osu.edu*. Please let me know if you have any questions.

Thanks in advance for your time and happy holidays,
Dawn

<image001.png>

Dawn M. Kitchen, Ph.D.

Professor of Anthropology, The Ohio State University

Associate Dean, Mansfield Campus

206E Riedl Hall, 1760 University Drive, Mansfield, OH 44906

419.755.4027(tel); 419-755-4241 (fax); kitchen.79@osu.edu

<https://anthropology.osu.edu/people/kitchen.79>

Term Information

Effective Term Autumn 2020

General Information

Course Bulletin Listing/Subject Area Molecular Genetics
Fiscal Unit/Academic Org Molecular Genetics - D0340
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 4500
Course Title General Genetics
Transcript Abbreviation General Genetics
Course Description The principles of genetics, including molecular genetics, transmission genetics of prokaryotes and eukaryotes, developmental and non-chromosomal genetics, recombinant DNA and genomics, and the genetics and evolution of populations.
Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: Biology 1101, 1113, or 1113H, and 3 additional sem cr hrs in Biological Sciences.
Exclusions Not open to students with credit for 4606.
Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 26.0801
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Students understand the principles of genetics, including molecular genetics, transmission genetics of prokaryotes and eukaryotes, developmental and non-chromosomal genetics, recombinant DNA and genomics.

Content Topic List

- Transmission genetics
 - Mendelian genetics
 - Extensions and modifications to basic patterns of inheritance
 - Pedigree analysis
 - Linkage, recombination, and gene mapping
 - The central dogma
 - DNA structure and chromosome organization
 - DNA replication and recombination
 - Gene expression: transcription/translation
 - Recombinant DNA technology and applications
 - Introduction to genomics, proteomics, and bioinformatics
 - Regulation of gene expression
 - Mutational analysis
 - Special topics
- No

Sought Concurrence

Attachments

- SyllabusMG4500_Sp20.pdf

(Syllabus. Owner: Cole,Susan Elizabeth)

Comments

- The attached syllabus is for the Columbus campus offering and is provided as an example. We anticipate that syllabi for offerings at regional campuses will cover the same content, but may utilize different assessment mechanisms (by

Cole,Susan Elizabeth on 02/05/2020 08:18 AM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Cole,Susan Elizabeth	02/05/2020 08:19 AM	Submitted for Approval
Approved	Cole,Susan Elizabeth	02/05/2020 08:19 AM	Unit Approval
Approved	Haddad,Deborah Moore	02/05/2020 08:53 AM	College Approval
Approved	Vankeerbergen,Bernadette Chantal	02/05/2020 09:03 AM	ASCCAO Approval
Approved	Horn,David Graves	02/06/2020 09:34 PM	ASC Approval
Approved	Reed,Kathryn Marie	02/07/2020 04:44 PM	OAA Approval
Approved	Guthrie,Emily J	02/11/2020 02:34 PM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Chemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 2520
Course Title Organic Chemistry II
Transcript Abbreviation Organic Chem 2
Course Description Continuation from 2510, including aromatic systems, carboxylic acids, carboxylic acid derivatives, amines, carbon-carbon bond-forming reactions, polymers, carbohydrates and amino acids.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture, Recitation
Grade Roster Component Recitation
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites 2510, 2610 (252) or 2910H (252H).
Exclusions Not open to students with credit for 2620 (253) or 2920H.
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0501
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course sequence (e.g., a 3-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 1-semester course)

List the current and proposed sequences by number and title

Part of Chemistry 252 and all of Chemistry 253

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- To develop a better understanding of the principles that govern organic chemistry and the common functional groups, bonding, conformations, stereochemistry and their reaction mechanisms

Content Topic List

- Aromatic systems
- Carboxylic acids
- Carboxylic acid derivatives
- Amines
- Carbon-carbon bond-forming reactions
- Polymers
- Carbohydrates and amino acids

Sought Concurrence

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hadad,Christopher Martin	03/25/2011 03:44 PM	Submitted for Approval
Approved	Hadad,Christopher Martin	03/25/2011 04:06 PM	Unit Approval
Approved	Andereck,Claude David	03/26/2011 08:30 PM	College Approval
Approved	Hanlin,Deborah Kay	04/18/2011 11:19 AM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/08/2011 02:06 PM	ASC Approval
Approved	Newhouse,Melissa Ann	08/02/2011 11:18 AM	OAA Approval
Approved	Bour,Andrea S	08/08/2011 11:53 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Chemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 2540
Course Title Organic Chemistry Laboratory I
Transcript Abbreviation Org Chem Lab 1
Course Description Introduction to spectroscopic characterization, scientific writing, computational chemistry, and the laboratory techniques of organic chemistry, including synthesis, isolation, purification, and identification of organic compounds.
Semester Credit Hours/Units Fixed: 2

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture
Grade Roster Component Laboratory
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq or concur: 2510, 2610 or 2910H.
Exclusions
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0501
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses

List the current courses by number and title that are to be subsumed into proposed course

Chemistry 254 (with expanded content of spectroscopic methods)

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Develop an understanding of the methods for the analysis of organic functional groups and organic structure. To learn the fundamental techniques of organic chemistry and to apply those techniques for the synthesis of organic molecules

Content Topic List

- Spectroscopic characterization
- Scientific writing
- Computational chemistry
- The laboratory techniques of organic chemistry, including synthesis, isolation, purification, and identification of organic compounds

Sought Concurrence

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hadad,Christopher Martin	03/25/2011 03:44 PM	Submitted for Approval
Approved	Hadad,Christopher Martin	03/25/2011 04:06 PM	Unit Approval
Approved	Andereck,Claude David	03/26/2011 08:35 PM	College Approval
Approved	Hanlin,Deborah Kay	04/18/2011 11:16 AM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/08/2011 02:08 PM	ASC Approval
Approved	Newhouse,Melissa Ann	07/29/2011 02:53 PM	OAA Approval
Approved	Bour,Andrea S	08/03/2011 05:56 PM	OUR Approval

Term Information

Effective Term Autumn 2013

General Information

Course Bulletin Listing/Subject Area Chemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 2510
Course Title Organic Chemistry I
Transcript Abbreviation Organic Chem 1
Course Description Introduction to structure, nomenclature, physical properties, preparation and reactions of alkanes, alkenes, alkynes, alcohols, ethers, epoxides, aldehydes and ketones. Other topics include stereochemistry, acids, bases, and reaction mechanisms.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture, Recitation
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 1220 (123), 1620 or 1920H (203H).
Exclusions Not open to students with credit for 252.
Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0504
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

List the current courses by number and title that are to be subsumed into proposed course

Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses

Chemistry 251 and part of Chemistry 252.

*** CONVERSION NOTE: For degree audit purposes, students with credit for Chem 252 will receive audit credit for Chem 2510. Content of Chem 2510 is derived from both listed quarter courses. ***

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- To develop a better understanding of the principles that govern organic chemistry and the common functional groups, bonding, conformations, stereochemistry and their reaction mechanisms

Content Topic List

- Structure
- Nomenclature
- Physical properties
- Preparation and reactions of alkanes, alkenes, alkynes, alcohols, ethers, epoxides, aldehydes and ketones
- Stereochemistry, acids, bases, and reaction mechanisms

Sought Concurrence

No

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Chang, Shuh-Kuen	05/10/2013 02:58 PM	Submitted for Approval
Approved	Swenson, Richard Paul	05/10/2013 03:01 PM	Unit Approval
Approved	Hadad, Christopher Martin	05/10/2013 04:35 PM	College Approval
Approved	Vankeerbergen, Bernadette Chantal	05/14/2013 09:28 AM	ASCCAO Approval
Approved	Fink, Steven Scott	05/29/2013 04:32 PM	ASC Approval
Approved	Newhouse, Melissa Ann	05/29/2013 05:31 PM	OAA Approval
Approved	Ellwood, Whitney Donnelle	05/30/2013 08:29 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Chemistry
Fiscal Unit/Academic Org Chemistry - D0628
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 2550
Course Title Organic Chemistry Laboratory II
Transcript Abbreviation Org Chem Lab 2
Course Description Introduction to spectroscopic characterization, scientific writing, computational chemistry, and the laboratory techniques of organic chemistry, including synthesis, isolation, purification, and identification of organic compounds.
Semester Credit Hours/Units Fixed: 2

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture
Grade Roster Component Laboratory
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites Prereq: 2540 or 2540H. Prereq or concurr: 2520, 2620 or 2920H.
Exclusions
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0501
Subsidy Level Baccalaureate Course
Intended Rank Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Modified or re-envisioned course that includes substantial parts of the content and learning goals of one or more quarter courses

List the current courses by number and title that are to be subsumed into proposed course

Chemistry 255 (with expanded content of spectroscopic methods)

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- To gain an understanding of the methods for the analysis of organic functional groups and organic structure
- To learn the fundamental techniques of organic chemistry and to apply those techniques for the synthesis of organic molecules

Content Topic List

- Spectroscopic characterization
- Scientific writing
- Computational chemistry
- Laboratory techniques of organic chemistry, including synthesis, isolation, purification, and identification of organic compounds

Sought Concurrence

Attachments

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hadad,Christopher Martin	03/25/2011 03:44 PM	Submitted for Approval
Approved	Hadad,Christopher Martin	03/25/2011 04:06 PM	Unit Approval
Approved	Andereck,Claude David	03/26/2011 08:35 PM	College Approval
Approved	Hanlin,Deborah Kay	04/18/2011 11:13 AM	ASCCAO Approval
Approved	Meyers,Catherine Anne	06/08/2011 02:10 PM	ASC Approval
Approved	Newhouse,Melissa Ann	07/29/2011 02:54 PM	OAA Approval
Approved	Bour,Andrea S	08/08/2011 11:56 AM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Physics
Fiscal Unit/Academic Org Physics - D0684
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1200
Course Title Mechanics, Kinematics, Fluids, Waves
Transcript Abbreviation Mech,Fluids,Waves
Course Description Algebra-based introduction to classical physics: Newtons laws, fluids, waves.
Semester Credit Hours/Units Fixed: 5

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture, Recitation
Grade Roster Component Recitation
Credit Available by Exam Yes
Exam Type Advanced Placement Program, Departmental Exams
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Eligibility for Math 1150.
Exclusions Not open to students with credit for Physics 111
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0801
Subsidy Level General Studies Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course sequence (e.g., a 3-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 1-semester course)

List the current and proposed sequences by number and title

Part of Physics 111-112-113 equivalent, contains content from primarily 111 and some of 113.

Requirement/Elective Designation

General Education course:

Physical Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Newton's laws
- Rotational motion
- Linear and angular momentum
- Energy
- Conservation laws
- Fluids, density and pressure
- Harmonic motion, damped and driven
- Sound waves
- Superposition
- Interference, diffraction

Sought Concurrence

Attachments

Comments

- GE Physical Science course (by Andereck, Claude David on 03/07/2011 12:13 PM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hughes,Richard E	03/07/2011 05:47 AM	Submitted for Approval
Approved	Hughes,Richard E	03/07/2011 11:41 AM	Unit Approval
Approved	Andereck,Claude David	03/07/2011 12:13 PM	College Approval
Approved	Meyers,Catherine Anne	03/23/2011 01:08 PM	ASCCAO Approval
Approved	Gustafson,Terry Lee	04/11/2011 07:26 PM	ASC Approval
Approved	Newhouse,Melissa Ann	04/28/2011 11:17 AM	OAA Approval
Approved	Bour,Andrea S	05/03/2011 05:45 PM	OUR Approval

Term Information

Effective Term Summer 2012

General Information

Course Bulletin Listing/Subject Area Physics
Fiscal Unit/Academic Org Physics - D0684
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1201
Course Title E&M, Optics, Modern Physics
Transcript Abbreviation Elec,Magn,Optic,QM
Course Description Algebra-based introduction to electricity and magnetism, simple optics, overview of modern physics including special relativity and quantum mechanics.
Semester Credit Hours/Units Fixed: 5

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture, Recitation
Grade Roster Component Recitation
Credit Available by Exam Yes
Exam Type Advanced Placement Program, Departmental Exams
Admission Condition Course Yes
Admission Condition Natural Science
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites Physics 111 or 1200
Exclusions Not open to students with credit for Physics 112
Electronically Enforced

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 40.0801
Subsidy Level General Studies Course
Intended Rank Freshman, Sophomore, Junior, Senior

Quarters to Semesters

Quarters to Semesters

Semester equivalent of a quarter course sequence (e.g., a 3-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 2-semester sequence, a 2-quarter sequence becomes a 1-semester course)

List the current and proposed sequences by number and title

Part of Physics 111-112-113 equivalent, contains content from primarily 112 and some of 113.

Requirement/Elective Designation

General Education course:

Physical Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

Content Topic List

- Electricity
- Magnetism
- Circuits
- Optics
- Electromagnetic waves
- Quantum mechanics
- Radioactivity
- Nuclear fission and fusion
- Special relativity

Sought Concurrence

Attachments

Comments

- GE Physical Science course (by Andereck,Claude David on 03/07/2011 12:11 PM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hughes,Richard E	03/07/2011 05:48 AM	Submitted for Approval
Approved	Hughes,Richard E	03/07/2011 11:45 AM	Unit Approval
Approved	Andereck,Claude David	03/07/2011 12:11 PM	College Approval
Approved	Meyers,Catherine Anne	03/23/2011 01:09 PM	ASCCAO Approval
Approved	Gustafson,Terry Lee	04/11/2011 05:47 PM	ASC Approval
Approved	Newhouse,Melissa Ann	04/28/2011 11:18 AM	OAA Approval
Approved	Bour,Andrea S	05/03/2011 05:50 PM	OUR Approval