REQUESTOR CONTACT INFORMATION			
Date: August 20, 2014	Effective term of request (Semester-Year): FALL 2014		
Name: Jean M. Ippolito	Title: Curriculum Planning Liaison for Academic Affairs		
Campus: UH Hilo	Office/Department: Academic Affairs		
Phone: 808 932-7112	Email: jippolit@hawaii.edu		

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE			
Institution: UH Hilo College: College of Arts and Sciences (C/ Department: Natural Sciences			
New program code K Change/replace existing program code:			
Level: 🐼 Undergraduate 🗌 Graduate 🗌 First-Professional 🗌 Post-Baccalaureate 🗌 Other:			
Degree: BA Certificate:			
If requesting an existing Major code and/or Concentration code in Banner:			
Existing Major: BIOL Code Biology Description Description Existing Concentration: EEC Code Description			
If requesting a new 🗌 Major code or 🗌 Concentration code that does not exist in Banner:			
New Code [4 char/space limit]: Description [30 char/space limit]:			
If a similar major/concentration code exists in Banner, please list the code:			
Is this major/concentration code being used the same way at other UH campuses?			
Is 50% or greater of the classes in this program offered at a location other than the Home Campus? Yes 🐼 No (Please consult your Financial Aid Officer on Program Participation Agreement impact)			
Is this program/major/certificate financial aid eligible? 🐼 Yes 🗌 No (Financial Aid Officer consultation required for all new program codes)			
Should this program be available for applicants to select as their planned course of study on the online application? Yes No (If yes, students may select the code as their <u>only</u> program of study.)			

CRF 325

Replacing or eliminating an existing program c	ode:					
If replacing an existing program code, are curre	nt students "grandfathe	red" under	the old	code? 🛠 Yes 🗌 No		
Should the old program code be available for us	se in Banner? 🛛 🐼 Yes	🗌 No				
Will the old program code be available for:	Banner Module Online Application Recruitment Admissions General Student Academic History	Yes	2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Summer 2014	Ending term is Fall 20 and not Summer 201 email confirmation fro Mahealani Jones, 8/2	4 - p om

2. CERTIFICATES ONLY:
Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)? Yes No (Please consult your Financial Aid Officer or see: <a href="http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html">http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html</a> )
For new certificates approved by the Chancellor, the related BOR authorized academic program is:

3. NEW CAMPUS, COLLEGE, DIVISION, OR DEPARTME	NT CODE Banner forms: S	TVCAMP, STVCOLL, STVDIVS, STVDEPT
Campus code [3 char]:	Campus description [30 char/space limit]:	
College code [2 char]:	College description [30 char/space limit]:	
Division code [4 char/space limit]:	Division description [30 char/space limit]:	
Department code [4 char/space limit]:	Department description [30 char/space limit]:	

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4. NEW COURSE SUBJECT CODE (Subject Alpha)	Banner form: STVSUBJ
College:	Department:
Subject code [4 char/space limit]:	Subject description [30 char/space limit]:

5. NEW MINOR (Minor codes are listed on the Major code table)		Banner form: STVMAJR
Minor Code [4 char/space limit]:	Minor Description [30 char/space limit]:	

Please briefly describe your request and explain why you are requesting the code(s): Biology is merging the two BA tracks. Registrar will use the Cell track as the one general Biology BA degree program and the EEC track will be eliminated.

### SUPPORTING DOCUMENTATION

Please see the Code Request Guide for the required supporting documents to be submitted. Documents submitted with this form:

Board of Regents meeting minutes and supporting documents provided to the BOR

Memo from UH President

Memo from Chancellor

Curriculum (required for requests for new programs/majors/minors/certificates)

Gainful Employment Program notification to the US Department of Education

Other: \_\_\_\_\_

CAMPUS VERIFICATION Requestor Signature Ean M. Typolite Date Aug. 21, 2014			
Requestor Signature Jan M. Topolita Date Aug. 21, 2014			
Registrar (If different from Requestor) Image: Construction of the second sec			
Financial Aid Officer (Financial Aid Officer consultation required for all new program codes)   8/2/14     Sherrie K Padilla   8/2/14     Print name   Signature   Date			
Email/memo in lieu of Financial Aid Officer's signature may be attached			
For Community Colleges, verification of consultation with OVPCC Academic Affairs:			
Print name Signature Date			
Email/memo in lieu of signature may be attached			
Send completed form and supporting documentation to: Institutional Research and Analysis Office (IRAO) 1633 Bachman Place Email: iro-mail@lists.hawaii.edu			

1633 Bachman Place	Email: iro-mail@lists.hawaii.e
Sinclair Annex 2, Room 4	Fax: 808-956-9870
Honolulu, HI 96822	Phone: 808-956-7532

After <u>all</u> required forms and supporting documents have been submitted, please allow at least two weeks for processing by IRAO and Banner Central.

	RECEIVED
FOR INTERNAL USE ONLY	Date form/docs received: By Princess Soares at 12:26 pm, Aug 28, 2014
Program code [12]: BA-BIOL	Program Description [30]: Biology-BA, Concentration EEC
CIP code [6]:	CIP description [30]:

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August 25, 2014

#### MEMORANDUM

TO:	Joanne Itano, Interim Executive Vice President for
	Academic Affairs, University of Hawai`i System
	Product
VIA:	Donald Straney, Chancellor Julia . Sundy
	University of Hawai`i at Hilo
FROM:	Matthew Platz, VCAA
	University of Hawai`i at Hilo
SUBJECT:	Code Request: Banner code for Ecology Evolution and Conservation
	Offered through the College of Arts & Sciences

We request that the Banner code for the Ecology Evolution and Conservation (EEC) track be turned off. The Department of Biology in the College of Arts & Sciences is merging their two tracks cell and molecular, with EEC. The existing code for the cellular and molecular track will continue to be used in Banner (BIOL).

This action has successfully completed the curriculum review process at the University of Hawaii at Hilo.

Thank you for your assistance in notifying the appropriate University offices so that this program will be reflected properly in the University's operational and reporting systems.

Cc: Randy Hirokawa, Dean College of Arts & Sciences Cathy Travis, Registrar Gail Makuakane-Lundin, Interim Vice Chancellor for Student Affairs

# UH Hilo

Degree:	Bachelor of Arts
Division:	Biology
Title:	BA in Biology
Description:	
Effective Date:	Fall 2014

#### 1. Is this a proposal for

(a) modification of an existing undergraduate or graduate program/degree/major/minor/certificate?

(b) a new certificate or minor or track within an existing baccalaureate or graduate program?

(c) a proposal for an individual liberal studies major equivalent?

(d) a request for Approval To Plan a new graduate or undergraduate degree program (ATP)?

(e) a new graduate degree program or a new baccalaureate degree program?

If (a) or (b), please answer all questions in this proposal form.

If (c), provide student's name, student ID, faculty advisor's name, and title of proposed program in the space below; then answer question 2 only, and attach the proposal and advisor's letter.

If (d), answer only questions 1 and 9 and attach your request for Approval to Plan.

If (e), answer all questions and attach both the signed, approved ATP for your proposed program and the program proposal by clicking the "Attachment" tab at the bottom of the proposal form.

The BOR E5.201 template for new programs and budget template are posted on the VCAA Curriculum Resources page: http://hilo.hawaii.edu/uhh/vcaa/CurriculumResources.php

Consult CurrCtrl campus administrator Jon Awaya awayaj@hawaii.edu for assistance.

(a) modification of an existing undergraduate program, B.A. Biology

2. Please answer the following, for both new programs and modifications, numbering your answers.

1. Specify (a) the number of credits required for the program and (b) the number of elective credits.

2. Specify the minimum required GPA for courses taken for the major, minor or certificate. Unless otherwise stipulated here, the minimum required GPA will be set as 2.0 (C) in Banner.

3. Specify the minimum acceptable grade for each course taken for the major, minor, or certificate. Unless otherwise stipulated here, the minimum acceptable grade will

1.(a) total credits: 120; 73-77 required for the program (b) 15-16 elective credits 2.2.0 3. C-

- How does the NEW program or program modification benefit students, the 3. curriculum, and the institution, and how does this change relate to or impact other programs at the university?

See attachment for specific details.

Describe any additional library resources, facilities, equiipment or other resources 4. required for the new or modified program and provide an estimate of such costs.

Type in "None" if appropriate.

No new resources

Describe any additional faculty required for the new or modified program and 5. provide an estimate of such costs.

No new faculty

If this is a new program or a new certificate or a minor or a new track within an 6. existing program, copy and paste from a Word document into the window below a catalog-ready list of the graduation (or minor or certificate) requirements, including required courses and acceptable electives.

If this is a program modification, copy and paste the current requirements into the window below; strike out portions to be deleted, and underline any new or additional portions.

Reminder: This proposal is for one type of program. Include requirements for only one type of program: the BA, or the minor, or the certificate, as indicated by the type of program you selected when you created this proposal.

#### 1. Required courses from Biology

- BIOL 175–175L Introduction to Biology I with Lab (4)
- BIOL 176–176L Introduction to Biology II with Lab (4)
- BIOL 270–270L Intermediate Cell and Molecular Biology with Lab (4)
- BIOL 280 Biostatistics (3)
- BIOL 281-281L General Ecology (3) with Lab (5)

- BIOL 357 Evolution (3)
- BIOL 375 375L Biology of Microorganisms (3) with Lab (4)
- BIOL 410 410L Biochemistry with Lab (5)
- BIOL 415 Cell Biology (3)
- BIOL 466 Genetics (3)
- BIOL 495A–495B Seminar (2 semesters) (2)
- and at least one-Four additional 300 or 400 level Biology elective courses (12)
- And two additional 300 or 400 level Biology elective laboratory courses (3-4), at least one of which must be 400 level.

# 2. Required courses from related fields

- CHEM 124–124L General Chemistry I with Lab (4)
- CHEM 125-125L General Chemistry II with Lab (4)
- CHEM 241–241L and CHEM 242–242L Organic Chemistry I-II with Lab (8)
- ENG 225 Writing for Sci & Technology, or ENG 286A Intro to Fiction Writing, or ENG 287, Introduction to Rhetoric, or PHIL 316 Science, Technology and Society, or PHIL 327 Bioethics (3)
- PHYS 106–170L, 107–171L College Physics I-II with Lab (8) or PHYS 170–170L, 171–171L General Physics I-II with Lab (10)
- MATH 115 Applied Calculus (3) or MATH 205 Calculus I (4)

# 3. Electives: 4 Courses from Group 1, and 2 Courses from Group 2

# Group 1 Electives: Choose 12 semester hours from the following BIOL courses (12)

- <u>(12)</u>
  - BIOL 381 Conservation Biology (3)
  - BIOL 410 Biochemistry (3)
  - BIOL 415 Cell Biology (3)
  - BIOL 443 Ecological Animal Physiology (3)
  - BIOL 445 Behavioral Ecology & Evolution (3)
  - BIOL 455 Plant Ecology (3)
  - BIOL 460 Plant Diversity & Evolution (3)
  - BIOL 466 Genetics (3)
  - BIOL 467 Ecological Genetics (3)
  - BIOL 437 Marine Mammal Behavior (3)
  - BIOL 477 Avian Biology (3)
  - BIOL 481 Advanced Ecology and Evolution (3)
  - BIOL 394 or 494 Special Topics in Subject Matter (Arr.) (IO)
  - Group 2 Electives: Choose 2 courses from the following BIOL laboratory courses, 1 of which must be 400-level (3-4)
  - BIOL 357L Evolutionary Genetics Lab (1)
  - BIOL 375L Biology of Microorganisms Lab (1)
  - BIOL 410L Biochemistry Lab (2)
  - BIOL 415L Cell Biology (2)
  - BIOL 466L Genetics Lab (2)
  - BIOL 481L Ecology & Evolutn Resrch Methd (2)

#### Group 2 Total: 67-70 73-77 Semester Credits

# Total Minimum Semester Hours Required for the B.A. in Biology 120 Semester Hours

# Additional Courses Recommended For Specific Plans After Graduation

- Graduate studies in biology: At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- Application to medical, pharmacy, dental, veterinary school or other healthrelated fields: At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- Careers that may include teaching: one or more semesters of Teaching Assistance

and Tutoring in Biology (BIOL 496).

• **Careers in environmental biology:** a course in geographic information systems (GEOG 480 or GEOL 445).

### Notes

- 1. BIOL 101 and BIOL 101L are non-major courses and do not count toward the major or minor in Biology.
- Students should begin chemistry courses their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
- 3. Students must carn a minimum grade of "C-" in all required and prerequisite courses.
- 4. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
- 5. To earn a Bachelor of Arts or Bachelor of Science degree in Biology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the <u>Baccalaureate Degree Requirements</u> in this catalog.)
- Students should always check course prerequisites and the frequency with which courses are offered.
- 7. To ensure progress toward degree completion, students are strongly encouraged to meet with an advisor each semester before registering.
- Students completing the B.S. in Cell and Molecular Biology Track concurrently fulfill the requirements for a minor in Chemistry. (Students may wish to file for a minor in <u>Chemistry</u>.

1. <u>BIOL 101 and BIOL 101L are non-major courses and do not count toward the major or</u> minor in Biology.

2. <u>100-level courses should be completed by the student prior to enrollment in 200-level or higher courses.</u>

3. <u>Biology 175 and 176 are offered every semester, and can be taken in either order. Also for</u> BIOL 175 and BIOL 176, the lab section must be taken concurrently with the lecture.

4. <u>Students should begin chemistry courses their freshmen year if they plan to complete</u> their academic program in four years. Chemistry courses are often prerequisites for required biology classes.

Students must earn a minimum grade of "C-" in all required and prerequisite courses.

6. <u>The upper division credits needed for graduation for all degrees in Biology are met in the</u> process of completing these degrees.

7. <u>To earn a Bachelor of Arts or Bachelor of Science degree in Biology, students must fulfill</u> the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the Baccalaureate Degree Requirements in this catalog.)

8. <u>Many upper-level Biology courses are writing intensive and therefore offer the ability for</u> <u>students to complete that university requirement. In these courses students write a series of</u> <u>laboratory reports demonstrating their ability to perform experiments and to organize,</u> <u>analyze, and interpret the quantitative results of experimental work.</u>

9. <u>Students should always check course prerequisites and the frequency with which</u> courses are offered.

10. To ensure progress toward degree completion, students are strongly encouraged to meet with an advisor each semester before registering.

11. <u>Students completing the B.S. in Cell and Molecular Biology can choose to take one</u> additional 4-credit upper-division CHEM course (300 or above) to receive a Chemistry Minor.

7. List any new courses or modified courses being proposed with this program proposal, providing alpha, number, and title of each one. The proposals for these new/modified courses MUST be submitted at the same time as this program proposal, to ensure proper review by approvers. Specify "Proposal submitted" next to each course in your list.

Proposed course modifications: Biol270 (proposal submitted) Biol270L (proposal submitted) Biol281 (proposal submitted) Biol281L (proposal submitted) Biol357 (proposal submitted) Biol357L (proposal submitted) Biol381 (proposal submitted) Biol410 (proposal submitted) Biol415 (proposal submitted) Biol443 (proposal submitted) Biol466 (proposal submitted) Biol466L (proposal submitted) Biol4677 (proposal submitted) Biol481 (proposal submitted)

8. Does this new or modified program involve courses offered by other departments? If not, type in "no."

If yes, please attach an email (in PDF) or other document from the chair(s) of the other department(s) approving the inclusion of those courses by alpha, number, and title.

To attach, click on the ATTACHMENT button at the bottom of this page, next to the SUBMIT button.

Yes, see attached pdf.

9. Please record the department vote approving the proposed change(s): Approve, Not Approve, Abstain; give the date of the vote.

Date: 9/17/13 Vote: 11,0,1

10. Provide other attachments that you believe will be useful and informative to reviewers and approvers.

Attachn	nents —	
		on File Name
	1	Chem Dept support letter.pdf
	1	English Dept support letter.pdf
	1	Philosophy Dept Support Letter.pdf

Campus:	HIL
Updated By:	ABBYC
Updated Date:	10/01/2013 10:57 AM

# **BA in Biology**

# 1. Required courses from Biology

0	BIOL 175–175L Introduction to Biology I with Lab (4)
0	BIOL 176–176L Introduction to Biology II with Lab (4)
0	BIOL 270-270L Intermediate Cell and Molecular Biology with Lab (4)
0	BIOL 280 Biostatistics (3)
0	BIOL 281-281L General Ecology (3) with Lab (5)
0	BIOL 357 Evolution (3)
0	BIOL 375 -375L Biology of Microorganisms (3) with Lab (4)
0	BIOL 410-410L Biochemistry with Lab (5)
0	BIOL 415 Cell Biology (3)
0	BIOL 466 Genetics (3)
0	BIOL 495A-495B Seminar (2 semesters) (2)
0	and at least one Four additional 300 or 400 level Biology elective
	course <u>s (12)</u>
0	And two additional 300 or 400 level Biology elective laboratory courses
	(3-4), at least one of which must be 400 level.
2.	Required courses from related fields
0	CHEM 124–124L General Chemistry I with Lab (4)
0	CHEM 125–125L General Chemistry II with Lab (4)
0	CHEM 241–241L and CHEM 242–242L Organic Chemistry I-II with Lab
	(8)
0	ENG 225 Writng for Sci & Technology, or ENG 286A Intro to Fiction
	Writing, or ENG 287, Introduction to Rhetoric, or PHIL 316 Science,
	Technology and Society, or PHIL 327 Bioethics (3)
0	PHYS 106–170L, 107–171L College Physics I-II with Lab (8) or PHYS
	170–170L, 171–171L General Physics I-II with Lab (10)
0	MATH 115 Applied Calculus (3) or MATH 205 Calculus I (4)
3	
•	Group 1 Electives: Choose 12 semester hours from the following BIOL
	courses (12)
0	BIOL 381 Conservation Biology (3)
0	BIOL 410 Biochemistry (3)
0	BIOL 415 Cell Biology (3)
0	BIOL 443 Ecological Animal Physiology (3)
0	BIOL 445 Behavioral Ecology & Evolution (3)
0	BIOL 455 Plant Ecology (3)
0	BIOL 460 Plant Diversity & Evolution (3)
0	BIOL 466 Genetics (3) BIOL 467 Ecological Genetics (3)
0	
0	BIOL 437 Marine Mammal Behavior (3) BIOL 477 Avian Biology (3)
0	BIOL 481 Advanced Ecology and Evolution (3)
0	BIOL 394 or 494 Special Topics in Subject Matter (Arr.) (IO)
0	Group 2 Electives: Choose 2 courses from the following BIOL
	ereap a moothoot encode a couroed non the following blow

### laboratory courses, 1 of which must be 400-level (3-4)

- BIOL 357L Evolutionary Genetics Lab (1)
- BIOL 375L Biology of Microorganisms Lab (1)
- BIOL 410L Biochemistry Lab (2)
- BIOL 415L Cell Biology (2)
- BIOL 466L Genetics Lab (2)
- BIOL 481L Ecology & Evolutin Resident Method (2)

# Group 2 Total: 67-70 73-77 Semester Credits

Total Minimum Semester Hours Required for the B.A. in Biology 120 Semester Hours