


University Courses & Curricula Committee 2018-2019

February 20, 2019

 **Talley Student Union 3222**
 12:45pm-2:45pm

Call to Order 12:45pm

- Welcome from Chair Marta Klesath
- Remarks and Updates from OUCCAS/DASA
- Approval of UCCC February 6th 2019 Minutes
- Course and Curricular Business

New Business

Consent Agenda			
Action	Type	Notes	
AFS 342 Introduction to the African Diaspora	Minor	Revising: Scheduling, abbreviated titl	
AFS 344 Leadership in African American Communities	Minor	Revising: Scheduling, abbreviated title	
AFS/ARS 346 Black Popular Culture	Minor	Revising: Scheduling, abbreviated title	
ARC 241 History of World Architecture	Minor	Revising: Title, dropping GEP	
ARE 106 Agri Business Law	Minor	Revising: Description	
BAE/SSC 473/(573) Introduction to Hydrologic and Water Quality Modeling	Minor	Revising: Title, grading, requisites, description	
CS 155 Advanced Turf Management	Minor	Revising: Requisites, scheduling	
CS 224 Seeds, Biotechnology & Societies	Minor	Updated GEP information	
CS 414 Weed Science	Minor	Revising: Requisites	
FL/ENG 394 Studies in World Literature	Minor	Revising: Requisites, abbreviated title, repeatable credits	
FW 333 Conservation Biology in Practice	Minor	Revising: Academic Org	
FW 415 Professional Development in Fisheries, Wildlife, and Conservation Biology	Minor	Revising: Academic Org	
MEA 481 Geomorphology: Earth's Dynamic Surface	Minor	Revising: Requisites	
PY 411/(511) Mechanics I	Minor	Revising: Requisites	
PY 414/(514) Electromagnetism I	Minor	Revising: Requisites	
SSC 151 Fertilizers and Soil Fertility	Minor	Revising: Requisites, description	
Biological Sciences (BA) 17BIOBA	Minor	Revising: Elective lists	
Biological Sciences (BS) 17BIOSCBS	Minor	Revising: Elective lists	
Biological Sciences (BS): Ecology, Evolution & Conservation Biology (17BIOSCBS-17BIOSCEEC)	Minor	Revising: Elective lists	
Biological Sciences (BS): Human Biology (17BIOSCBS-17BIOSCHB)	Minor	Revising: Elective lists	
Biological Sciences (BS): Integrative Physiology and Neurobiology (17BIOSCBS-17BIOSCIPN)	Minor	Revising: Elective lists	
Biological Sciences (BS): Molecular, Cellular, & Developmental Biology (17BIOSCBS-17BIOSCMCD)	Minor	Revising: Elective lists	
Genetics (BS) (17GNBS)	Minor	Revising: Elective lists	
Industrial Engineering BS (14IEBS)	Minor	Revising: Elective list	

College of Sciences

Presenter	Reviewers	Action	Type
Muse	Reynolds, Hessling, Bruce	BIO 310 Quantitative Approaches to Biological Problems	New Course
Muse	Simpson, Merrill, Seracino	MEA 409 Watershed Forensics	New Course
Planchart	Orphanides, Carlson Welch, Griffin Hillis	PY 299 Special Problems in Physics	Revising: Grading method to Graded with S/U Option
Planchart	Krause, Driscoll, Hergeth	ST 446 Intermediate SAS Programming with Applications	New Course
Planchart	Rieder, Driscoll, Domingue	Global Health Minor (17GHM)	New Minor

College of Humanities and Social Sciences			
Presenter	Reviewers	Action	Type
Driscoll	Hergeth, Simpson, Planchart	AFS 241 Introduction to African American Studies	Revising: Title, description, SLOs, objective, evaluation methods
Despain	Muse, Krause, Rieder	COM 211 Argumentation and Advocacy	Revising: Objectives, SLOs, evaluation methods

College of Agriculture and Life Sciences			
Presenter	Reviewers	Action	Type
Bruce	Kuzenski, Griffin Hillis, Krause	ARE 295 Special Topics in Agricultural & Resource Economics (200 Level)	New Course
Bruce	Roise, Krause, Domingue	ARE 395 Special Topics in Agricultural and Resource Economics (300 level)	New Course
Merrill	Orphanides, Rieder, Muse	FS 416/(516) Quality Control in Food and Bioprocessing	Revising: Schedule, SLOs, requisites, description, dual level

College of Design			
Presenter	Reviewers	Action	Type
Rieder	Roise, Planchart, Despain	ID 302 Industrial Design Studio IV	New Course
Rieder	Driscoll, Krause, Hergeth	ID 340 Research Methods in Industrial Design	New Course
Rieder	Seracino, Bruce, Domingue	ID 402 Advanced Industrial Design Studio II	New Course

SLO= Student Learning Outcomes

Discussion:

Notes:

- All linked course actions are viewable in CIM.
- To view actions, please click on the hyperlink. You may need to use your Unity ID to log in.
- If you experience issues logging in, please go to <https://next-catalog.ncsu.edu/courseadmin/> and type the course prefix and number into the search bar.

SLO = Student Learning Outcomes

University Courses and Curricula CommitteeFebruary 6, 2019
Talley Student Union 5101
Call to Order: 12:45 pm

Members Present: Chair Elect Rudi Seracino, Kanton Past Chair Helmut Hergeth, Melissa Merrill, Scott Despain, Catherine Driscoll, Kathleen Rieder, Peter Hessling, Reynolds, Wendy Krause, Peggy Domingue, Andreas Orphanides, Antonio Planchart, Jackie Bruce, Annie Carlson Welch, Berkley Griffin Hillis, John Kuzenski, Spencer Muse, Melissa Merrill, Kanton Reynolds, Gary Blank (JR Proxy), Erinn Foote/Coleman Simpson

Members Absent: Chair Marta Klesath, Joseph Roise

Guests: Thomas Price

Ex-Officio Members Present: Lexi Hergeth, Li Marcus, Tim Petty, Jordan Luzader, Kyle Pysher, John Harrington

WELCOME AND INTRODUCTIONS

- **Remarks from Chair Elect** - Welcomed the committee members and introduced the guests and proxy.
- **Remarks from Undergraduate Research-** Annie Carlson Welch has recently moved to the Undergraduate Research office and has asked for volunteers to review grant and provided information
- **Approval of the Minutes from January 23rd 2019** – Approved Unanimously
 - Discussion: Member Jackie Bruce moved to approve.

Old Business

- **MEA 217 Introduction to Computing in the Geosciences** - Approved with one abstention from Coleman Simpson
Discussion: Member Antonio Planchart presented the curricular action. Members discussed the changes in the grading scale, which was the reason it was previously tabled. Members indicated the grade distribution has been updated. Members asked Li if the old syllabi would still be available for comparative review in CIM. Li Marcus tested if this was a possibility while the College of Sciences representative indicated he could share the old syllabus, CIM does not house the old syllabi if an initiator or faculty member removes the syllabi before completing the approval process.

NEW BUSINESS

- **Consent Agenda** (ANT310,CHE447,CSC455,DS101,ENG/FL219...ect) -Approved Unanimously
Discussion: Member Melissa Merrill moved to approve.
- **PCC 201 Impact of Industry on the Environment and Society** - Approved Pending
Discussion: Member Wendy Krause presented the course action as approved pending the correction of the DRO statement in the syllabus. Member brought attention to the Electronic hosting statement, attendance, and PRRs. Presenter indicated the course should be pending the inclusion of . Office of assessment expressed concerns with the 3 bottom student learning outcomes and provided suggestions, presenter included these in the pending items.
- **COM 110 Public Speaking**- Approved Unanimously
Discussion: Member Scott Despain presented the course action. Member complimented the inclusion of the career services and student resources statements before the schedule in the syllabus.
- **COM 497 Advanced Topics in Media Studies**- Tabled
Discussion: Member Scott Despain presented the course action. Member implied confusion as to why the course justification about repeating special topics courses. Members discussed how special topic courses could vary, however the special topic IDs should not be repeated three times before becoming a permanent course offering. Member asked what the difference in COM 498 and COM 497. Presenter indicated COM 498 is a generic special topic while COM 497 is a special topic shell specific to Media Studies. Members indicated removing the information in the justification after "However". Members discussed if COM 498 is repeatable, 4 repeats are allowed. Members discussed the justification in detail, presenter indicated that every 3 times the special topic title ID would have to change and the information being taught. Motion to amend the motion to tabled, awaiting further detail and explanation in the justification. Members approved the amendment with one abstention from Scott Despain. Member asked if the student learning outcomes are measurable and the presenter indicated with a rubric the outcome could be measured. Li Marcus explained that special topics with specific timelines(ex: four semester timeline) can be exceptions to the 3 offering special topics maximums and indicated student learning outcomes in all syllabi being provided to students should have measurable outcomes.

- **HI 468/(568) Slavery in the Americas- *Approved with Friendly Suggestion***
Discussion: Member Catherine Driscoll presented the new course action. Member indicated the grading in the syllabus has the details as the grading titles. Member made the friendly suggestion to correct a typo in the final essay in the syllabus 'wright' to 'write'.
- **PHI 303 Continental Philosophy After 1900- *Approved Unanimously***
Discussion: Member Catherine Driscoll presented the new course action.
- **ARC 140 Experiencing Architecture- *Approved with Friendly Suggestion***
Discussion: Member Kathleen Rieder presented the course action. Member brought attention to the student evaluation methods adding up to 20% and suggested updating the percentages to "25%" and "75%". Member brought attention to the readings with citations being available via Moodle and agreed this is acceptable.
- **CSC 110 Computer Science Principles- The Beauty and Joy of Computing- *Approved with Friendly Suggestions***
Discussion: Member Kanton Reynolds presented the new course action. Member brought attention to the attendance policy indicating "the late assignment" policy is below, not above, and the makeup work policy referring to A&B in the absences section in the syllabus and suggested clarifying this. Member indicated the syllabus indicates that the number of weeks per item is assumed to be the same as CIM. Member drew attention to the abbreviated title and how this is what will appear on transcripts and suggested elongating. Member indicated that seats are restricted for Computer Science students, guest Thomas Price explained the idea is for this to be taken before CSC 116 or CSC 200. Members asked if students haven't taken CSC 116 they are eligible for the course but not if they have taken CSC 116, XONV member indicated this is not exactly an anti-requisite and would require further research. Member asked why courses such as CSC 111 aren't included; guest responded the 111 and 113 courses are for STEM majors and wouldn't have as much information as 116. Friendly suggestion to adjust the catalog description for easier word flow in paragraph form. Member indicated the Student Learning outcomes are rather long and asked the guest for an explanation. Guest indicated this is a long list of outcomes because the topics will be covered as an overview, not a deep dive.
- **CSC 409/(509) Cryptography- *Approved Pending with Friendly Suggestions***
Discussion: Member Kanton Reynolds presented the new course action pending the update to the DRO statement. Member indicated the dual level difference between undergraduate and graduate levels having enough rigor for the graduate level, members indicated this committee wouldn't mandate that information. XONV member indicated the "state and motive" student learning outcome could be adjusted to be more measurable. Friendly suggestion to use the title as the abbreviated title. Part of the pending action to adjust the verbiage for the "State and motivate" SLO. Member asked why if a course has online text, why the instructor would not allow laptops in class, members indicated this is an option as the online text seems to be read at home, not during class hours.

Meeting adjourned at 1:46 pm

Respectfully submitted by Lexi Hergeth

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs

FROM: Jane Lubischer, Director, Undergraduate Biology BA Program

RE: Minor update to 17BIOBA

DATE: 25 January 2019

Proposed effective date: when approved

Proposed changes and justification

This memo adds courses to three lists of electives, incorporating new courses and increasing options for students. The courses to be added are listed below. These changes should be applied to all available versions of 17BIOBA.

Life Science Electives

AEC 450 Conservation Genetics
BEC/BIT 463 Fermentation of Recombinant Microorganisms
BIO 230 The Science of Dinosaurs
BIO 310 Quantitative Approaches to Biological Problems
BIO 416 Cancer Cell Biology
BIO 418 Cell Biology Research Laboratory
BIO 432 Evolutionary Medicine
BIO 482 Capstone Course in Molecular, Cellular, and Developmental Biology
BIO 483 Capstone Course in Integrative Physiology and Neurobiology
BIO 484 Capstone Course in Human Biology
BIO 485 Capstone Course in Ecology, Evolution, and Conservation Biology
BIT 477 Metagenomics
GN 453 Personal Genomics
MA 331 Differential Equations for the Life Sciences
MB 470 Emerging and Re-emerging Infectious Diseases
ZO 334 Captive Animal Biology Laboratory
ZO 486 Capstone Course in Zoology

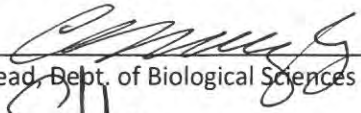
Experiential Learning

GN 425 Advanced Genetics Laboratory
MB 360 Scientific Inquiry in Microbiology: At the Bench

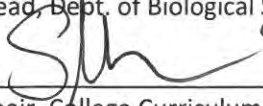
Communication and Writing Requirement (formerly Advanced Communication Requirement)

COM 289 Science Communication and Public Engagement

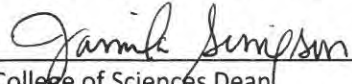
SIGNATURES (AS REQUIRED):

 1/25/19

Head, Dept. of Biological Sciences Date

 1/29/19

Chair, College Curriculum Committee Date

 1/29/19

College of Sciences Dean, Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: when approved

APPROVED EFFECTIVE DATE: _____

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs

FROM: Lisa Parks, Director Undergraduate Biology Program

RE: Minor update to 17BIOSCBS

DATE: 25 January 2019

Proposed effective date: When Approved

Proposed changes and justification

This memo adds courses to two lists of electives, incorporating new courses and increasing options for students. The courses to be **added** are listed below. These changes should be applied to all available versions of 17BIOSCBS.

PHYSIOLOGY REQUIREMENT

BIO 240 Human Anatomy and Physiology A

BIO 245 Human Anatomy and Physiology B

LEARNING EXPERIENCE ELECTIVE

GN 425 Advanced Genetics Laboratory

MB 360 Scientific Inquiry in Microbiology: At the Bench

ADDITIONAL SCIENCE/MATH (ASM) ELECTIVE

AEC 450 Conservation Genetics

BEC/BIT 463 Fermentation of Recombinant Organisms

BIO 230 The Science of Dinosaurs

BIO 310 Quantitative Approaches to Biological Problems

BIO 416 Cancer Cell Biology

BIO 418 Cell Biology Research Laboratory

BIO 432 Evolutionary Medicine

BIT 477 Metagenomics

GN 453 Personal Genomics

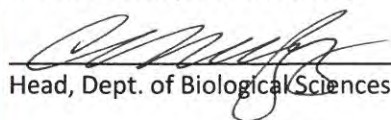
MA 331 Differential Equations for the Life Sciences

MB 470 Emerging and Re-emerging Infectious Diseases

ZO 334 Captive Animal Biology Laboratory

ZO 486 Capstone Course in Zoology

SIGNATURES (AS REQUIRED):



Head, Dept. of Biological Sciences

1/25/19

Date

SL 1/29/19
Chair, College Curriculum Committee Date

Garnita Simpson 1/29/19
College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: When Approved

APPROVED EFFECTIVE DATE: _____

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs

FROM: Lisa Parks, Director Undergraduate Biological Sciences Program

RE: Minor update to the Ecology, Evolution, and Conservation Biology concentrations 17BIOSCBS-17BIOSCEEC

DATE: 25 January 2019

Proposed effective date: When Approved

Proposed changes and justification:

This memo adds courses to one list of electives, incorporating new courses and increasing options for students. It also adds options to what was previously a single course requirement because that course (NR 406) has not been reliably available to students in recent years. These changes should be applied to all available versions of 17BIOSCEEC.

EECB Elective list -- please add these courses

BIO 310 Quantitative Approaches to Biological Problems

MB 470 Emerging and Re-emerging Infectious Diseases

GN 453 Personal Genomics

BCH 351 General Biochemistry

FW 460 International Wildlife Management and Conservation

ZO 486 Capstone Course in Zoology

Change NR 406 Conservation of Biological Diversity requirement to be "Conservation Biology Requirement"

Modify core requirement of NR406 Conservation of Biological Diversity to "Conservation Biology Requirement 3 Cr" with the following four course options:

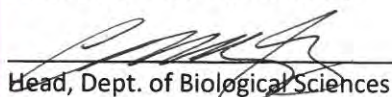
NR 406 Conservation of Biological Diversity

BIO 561 Conservation Biology

FW 333 Conservation Biology in Practice

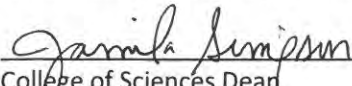
AEC 450 Conservation Genetics

SIGNATURES (AS REQUIRED):

 1/25/19

Head, Dept. of Biological Sciences Date

 1/29/19
Chair, College Curriculum Committee Date

 1/29/19
College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: when approved

APPROVED EFFECTIVE DATE: _____

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs

FROM: Lisa Parks , Director Undergraduate Biology Program

RE: Minor update to 17BIOSCBS-17BIOSCHB

DATE: 25 January 2019

Proposed effective date: When Approved

Proposed changes and justification

This memo adds courses to two lists of electives, incorporating new courses and increasing options for students. The courses to be **added** are listed below. These changes should be applied to all available versions of 17BIOSCHB.

Human Biology Elective

GN 453 Personal Genomics

Additional Science and Math

BEC/BIT 463 Fermentation of Recombinant Microorganisms

BIO 230 The Science of Dinosaurs

BIO 310 Quantitative Approaches to Biological Problems

BIO 416 Cancer Cell Biology

BIO 418 Cell Biology Research Laboratory

BIO 432 Evolutionary Medicine

BIT 477 Metagenomics

GN 453 Personal Genomics

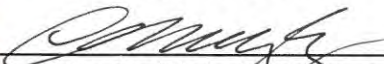
MA 331 Differential Equations for the Life Sciences

MB 470 Emerging and Re-emerging Infectious Diseases

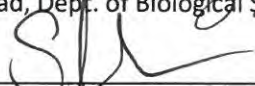
ZO 334 Captive Animal Biology Laboratory

ZO 486 Capstone course in Zoology

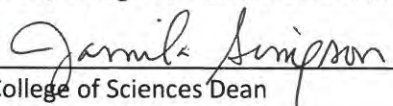
SIGNATURES (AS REQUIRED):

 1/25/19

Head, Dept. of Biological Sciences Date

 1/29/19

Chair, College Curriculum Committee Date

 1/29/19

College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: When Approved

APPROVED EFFECTIVE DATE: _____

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs

FROM: Lisa Parks, Director Undergraduate Biological Sciences Program

RE: Minor update to 17BIOSCBS-17BIOSCPN

DATE: 25 January 2019

Proposed effective date: When approved

Proposed changes and justification

This memo adds courses to two lists of electives, incorporating new courses and increasing options for students. The courses to be **added** are listed below. These changes should be applied to all available versions of 17BIOSCPN.

IPN Electives

AEC/FW 515 Fish Physiology
ANS 220/221 Reproductive Physiology and Lab
ANS/NTR/PO 415 Comparative Nutrition
ANS 452/552 Comparative Reproductive Biology and Biotechnology
BIO 310 Quantitative Approaches to Biological Problems
BIO 361 Developmental Biology
BIO 418 Cell Biology Research Laboratory
BIO 432 Evolutionary Medicine
BIO 444 The Biology of Love and Sex
BIO 478 Research Fundamentals in Behavioral Neuroscience
BIT 564 Protein Purification
BIT 471 RNA interference and Model Organisms
BIT 478/578 Mapping the Brain
BIT 566 Animal Cell Culture Techniques
ENT 503 Insect Morphology and Physiology
GN 434 Genes and Development
GN 441 Human and Biomedical Genetics
GN 453 Personal Genomics
GN 456 Epigenetics, Development, and Disease
MB 441 Immunology
NTR 419 Human Nutrition and Chronic Disease
PO 404/504 Avian Anatomy and Physiology
TOX 401/501 Principles of Toxicology

Supraorganismal elective option

AEC 450 Conservation Genetics
BIO 432 Evolutionary Medicine

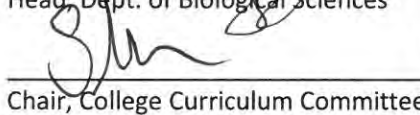
ADDITIONAL SCIENCE/MATH (ASM) ELECTIVE

AEC 450 Conservation Genetics
BIO 310 Quantitative Approaches to Biological Problems
BIO 432 Evolutionary Medicine
MB 470 Emerging and Re-emerging Infectious Diseases
ZO 334 Captive Animal Biology Laboratory
BEC/BIT 463 Fermentation of Recombinant Microorganisms
BIO 230 The Science of Dinosaurs
BIO 416 Cancer Cell Biology
BIO 418 Cancer Cell Biology Laboratory
BIT 477 Metagenomics
MA 331 Differential Equations for the Life Sciences
GN 453 Personal Genomics
ZO 486 Capstone Course in Zoology

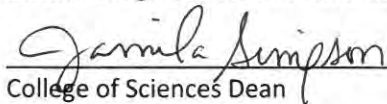
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Chair, College Curriculum Committee Date

 1/29/19

College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: When approved

APPROVED EFFECTIVE DATE: _____

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs

FROM: Lisa Parks , Director Undergraduate Biology Program

RE: Minor update to 17BIOSCBS-17BIOSCMCD

DATE: 25 January 2019

Proposed effective date: When Approved

Proposed Changes and Justification

This memo adds courses to two lists of electives, incorporating new courses and increasing options for students. The courses to be added are listed below. These changes should be applied to all versions of 17BIOSCMCD.

MCD Electives

GN 421 Molecular Genetics
GN 453 Personal Genomics
BIO 310 Quantitative Approaches to Biological Problems
BIO 418 Cell Biology Lab
BIO 488 Neurobiology
MB 470 Emerging and Re-emerging Infectious Diseases

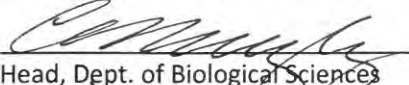
ADDITIONAL SCIENCE/MATH (ASM) ELECTIVES

AEC 450 Conservation Genetics
BIO 432 Evolutionary Medicine
BEC/BIT 463 Fermentation of Recombinant Microorganisms
BIO 230 The Science of Dinosaurs
BIO 310 Quantitative Approaches to Biological Problems
BIO 416 Cancer Cell Biology
BIO 418 Cell Biology Research Laboratory
BIT 477 Metagenomics
GN 453 Personal Genomics
MA 331 Differential Equations for the Life Sciences
MB 470 Emerging and Re-emerging Infectious Diseases
ZO 334 Captive Animal Biology Laboratory
ZO 486 Capstone Course in Zoology

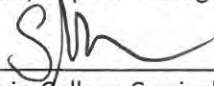
LEARNING EXPERIENCE ELECTIVE

GN 425 Advanced Genetics Laboratory
MB 360 Scientific Inquiry in Microbiology: At the Bench

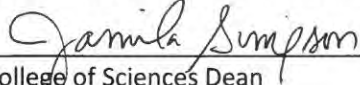
SIGNATURES (AS REQUIRED):

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Head, Dept. of Biological Sciences Date

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Chair, College Curriculum Committee Date

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College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: When Approved

APPROVED EFFECTIVE DATE: _____

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs
FROM: Betty Gardner, Director, Undergraduate Genetics Program
RE: Minor Update to the 17GNBS curriculum
DATE: 25 January 2019

Proposed effective date: When Approved

Proposed changes and justification

Please add the courses below to the appropriate requirement/elective sections of the degree audit. If possible, these should be added to all degree audits for the GN major.

Cell Biology/Physiology Requirement:

BIO 416	Cancer Cell Biology
BIO 240	Anatomy and Physiology (A)
BIO 245	Anatomy and Physiology (B)


Restricted Electives:

BIO 310	Quantitative Approaches to Biological Problems
BIO 418	Cell Biology Research Laboratory
BIO 482	Capstone Course in Molecular, Cellular, and Developmental Biology
BIO 483	Capstone Course in Integrative Physiology and Neurology
BIO 484	Capstone Course in Human Biology
BIO 485	Capstone Course in Ecology, Evolution and Conservation Biology
BIO 488	Neurobiology
ZO 486	Capstone Course in Zoology
GPH 404	Epidemiology and Statistics in Global Public Health
GPH 425	Global Health and Physiology
AEC 450	Conservation Genetics
ANT 370	Forensic Anthropology
BIO 432	Evolutionary Medicine
BIO 434	Hormones and Behavior
BIO 440	The Human Animal: An Evolutionary Perspective
MA 331	Differential Equations for the Life Sciences
MA 341	Applied Differential Equations
MB 441	Immunology
MEA 220	Marine Biology
PSY 430	Biological Psychology
TOX 401	Principles of Toxicology

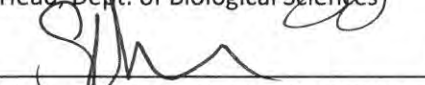
Genetics Electives:

GN 428 Introduction to Machine Learning in Biology
GN 453 Personal Genomics


SIGNATURES (AS REQUIRED):

 1/25/19

Head, Dept. of Biological Sciences Date

 1/29/19

Chair, College Curriculum Committee Date

 1/29/19

College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

Dean, Academic and Student Affairs Date

PROPOSED EFFECTIVE DATE: When Approved

APPROVED EFFECTIVE DATE: _____

Curriculum Action Memorandum

Dropping Elective or Course Option from a Curriculum

To: University Courses and Curriculum Committee

From: Edward P. Fitts Department of Industrial & Systems Engineering
College of Engineering

Affected Plans:

Industrial Engineering-BS (14IEBS)

Revisions:

Students in Industrial Engineering take MATH 303 – Linear Analysis instead of MATH 341 – Differential Equations. We would like to remove MATH 405 – Introduction to Linear Algebra from the list of approved technical electives for the major.

Additionally, we would like to correct the 8 semester display. It currently reads “ST4320” Obvious we use 3 digit course numbers at NCSU. The appropriate course numbers were transposed. It should read ST 432, ST 430 both of which are approved technical electives for ISE.

Justification:

MATH 405 is similar in many aspects to MATH 303. The NCSU Math Department does not allow credit for more than one of the three courses (MA 303/MA 405/MA 341). There is no complementary value to the ISE curriculum in allowing a student to use the course as a technical elective.

The change for the Statistics courses is a typographical error fix.

Impact to the programs:

There is no foreseeable impact to other departments.

Proposed effective date for revision:

2188

Industrial Engineering (BS) (14IEBS)

Freshman Year

Fall Semester	Credit	Spring Semester	Credit
CH 101 Chemistry, A Molecular Science ¹	3	EC 205 Economics (or EC 201 or ARE 201*)	3
CH 102 General Chemistry Lab ¹	1	MA 241 Calculus II ¹	4
E 101 Introduction to Engr & Prob Solv ^{1,2}	1	PY 205 Physics for Engr & Sc I ¹	3
E 115 Intro to Computing Environ ^{1,2}	1	PY 206 Physics for Engineers & Scientists I Lab ¹	1
ENG 101 Academic Writing and Research ^{1,2}	4	HES_*** Health & Exercise Studies Course	1
MA 141 Calculus I ¹	4	E 102 Engineering in the 21st Century (GEP-IP)	2
HES_*** Health & Exercise Studies Course*	1		
	15		14

Sophomore Year

Fall Semester	Credit	Spring Semester	Credit
MSE 200 Mechanical Properties of Structural Materials	3	ECE 331 Prin of Elect Engr	3
ISE 110 Comp Model for Engrs ³	3	ISE 215 Product Specification	1
MA 242 Calculus III	4	ISE 216 Mfg Engr Practicum	3
PY 208 Physics for Engineers & Scientists II	3	MA 303 Linear Analysis	3
PY 209 Physics for Engineers & Scientists II Lab	1	ST 372 Intro Stat Infer & Regres	3
ST 371 Intro Prob & Dist Theory ²	3	Engr Science Elect ⁴	3
	17		16

Junior Year

Fall Semester	Credit	Spring Semester	Credit
ENG 331 Tech Writing	3	ISE 352 Fundamentals of Human-Machine Systems Design	4
ISE 316 Mfg Engr I – Processes	3	ISE 362 Stochastic Models in IE	3
ISE 315 Product Specification II	1	ISE 443 Quality Control	3
ISE 441 Intro to Simulation	3	Technical Elective ⁶	3
ISE 361 Deter Models in IE	3	CE 214 Engineering Mechanics – Statics	3
Ethics (GEP Req*) ⁵	3		
	16		16

Senior Year

Fall Semester	Credit	Spring Semester	Credit
ISE 311 Engr Economic Analysis	3	ISE 498 Sr Design Proj	3
ISE 408 Cont of Prod & Ser Sys	3	Technical Elective ⁶	3
Technical Elective ⁶	3	GEP Requirement*	3
ISE 453 Production Systems Design	3	GEP Requirement*	3
GEP Requirement*	3	GEP Requirement*	3
	15		15

Minimum Credit Hours Required for Graduation:

124

Major/Program requirements and footnotes

1 Courses required for Change of Degree Audit (CODA). CH101, 102; MA 141, 241; PY 205, 206 must be completed with a C or higher.

2 Grade of C- or better required, E 115 requires satisfactory completion (S).

3 ISE 110 must be completed with a C or higher.

4 Engineering science electives: CE 313, MAE 208, MAE 314, MAE 301 or MAE 308.

5 Ethics elective: IDS 201, IDS 303, STS 214, STS 302, STS 304, STS 322, or STS 325.

6 Technical Electives: ISE 416, ISE 417, ISE 452, ISE 462, ISE 495, MA 405, ST 4320, ST 431, MSE 465, MSE 485.

*General Education Program (GEP) requirements

*To complete the requirements for graduation and the General Education Program, the following credit hours and co-requisites must be satisfied. University approved GEP course lists for each category can be found at <https://oucc.dasa.ncsu.edu/general-education-program/>.

Health & Exercise Studies – 2 hours to be selected from the approved GEP Health & Exercise Studies list.

a. One fitness and wellness course (any Health & Exercise Studies 100-level course).

b. One additional credit hour of Health & Exercise Studies activity courses.

Humanities – 6 credits to be selected in two different disciplines (two different course prefixes) from the approved GEP Humanities list.

Social Sciences – 3 credits to be selected in a discipline other than economics from the approved GEP Social Sciences list. EC 205 taken as part of the Major requirements satisfies 3 credit hours of the 6 credit hours needed to fulfill the GEP Social Sciences requirement.

Additional Breadth – 3 credits to be selected from the approved GEP Humanities, Social Sciences or Visual and Performing Arts lists.

Interdisciplinary Perspectives – 5 credits to be selected from the approved GEP Interdisciplinary Perspectives list. Ethics course taken as part of the Major requirements satisfies 3 credit hours of the 5-6 credit hours needed to fulfill the GEP Interdisciplinary Perspectives requirement.

Co-requisites

U.S. Diversity and Global Knowledge co-requisites must be satisfied to complete the General Education requirements. Choose course(s) that are identified on the approved GEP course lists as meeting the U.S. Diversity and Global Knowledge co-requisites.

Foreign Language proficiency at the FL_102 level will be required for graduation.

CURRICULUM REQUIREMENTS

Format B

<u>Degree/Plan Title:</u> Industrial Engineering (BS)	<u>Plan SIS Code:</u> (14IEBS)
<u>Concentration/Subplan Title:</u>	<u>Subplan SIS Code:</u>
<u>Indicate requirements status:</u> Current: Proposed: x <u>Proposed Effective Semester:</u> Spring 2019	
<u>New Degree Audit required?</u> (Y or N) N	
<u>Critical Path Courses</u> - Identify using the code (CP) which courses are considered critical path courses which represent specific major requirements that are predictive of student success in a given program/plan. Place the (CP) next to the credit hours for the course.	

MAJOR FIELD OF STUDY REQUIREMENTS:		
<i>Required Courses/Groups/ Electives:</i>	<i>Credit Hours</i>	<i>GEP category, if applicable</i>
Indicate if course or course groupings have a C-wall or MGPA requirement and which are considered Critical Path courses – indicate with (CP) next to applic. course.		List GEP category and hours satisfied by a Major requirement
<u>Concentration Courses/Groups/Electives:</u> ISE 416, ISE 417, ISE 452, ISE 462, ISE 495, ST 431, MSE 465, MSE 485. REMOVE MA 405, UPDATE TYPO FOR ST 430, ST 432,	9	TECHNICAL ELECTIVES
<u>Free Electives:</u>		
Total credit hours under Major Field of Study: <i>Minimum 27 hours required in program area.</i>	47 hours	

COLLEGE REQUIREMENTS:		
Orientation Course(s):		
Other:		
Total credit hours under College Requirements:	Hours	

<u>NCSU GENERAL EDUCATION PROGRAM REQUIREMENTS</u>		At least one of the following must be listed:
<p><i>Courses in the Major and/or Minor may also fulfill a General Education requirement; however, a GEP category <u>may not be subset</u> to require a specific course from the category list. Required courses must be listed in the Major/College requirements.</i></p> <p><i>Specific courses should not be listed in any of the fields below other than ENG 101.</i></p>		<ol style="list-style-type: none"> 1 Choose course(s) from the University Approved GEP course list for this category. 2 Minimum requirements are satisfied by Major/College course requirements. 3 Major/College course requirement satisfies <u>X</u> credit hrs of this requirement. Remaining hours required must be chosen from the University Approved GEP course list for the category. 4 Co-requisite is satisfied by a Major/College course requirement. 5 Choose course(s) from the University Approved GEP course lists for the Humanities/ Social Sciences/ Visual & Performing Arts. 6 Choose course(s) from the University Approved GEP course lists for Natural Sciences/Mathematical Sciences.
General Education Program Requirements: <i>Minimum 39-40 hrs</i>	<i>Credit hours</i>	<i>How will the GEP requirement be met? (Choose applicable statement from 1-6 listed above)</i>
Mathematical Sciences (6 credits) <i>(At least 1 course with MA or ST prefix) Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.</i>		<i>(Choose statement 1, 2 or 3)</i>
Natural Sciences (7 credits) <i>(At least 1 lab course or course with a lab) Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.</i>		<i>(Choose statement 1, 2 or 3)</i>
English 101 (C- or better required) (4 credits)	4	ENG 101
Humanities (6 credits) <i>(Courses from two different disciplines) Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.</i>		<i>(Choose statement 1, 2 or 3)</i>
Social Sciences (6 credits) <i>(Courses from two different disciplines) Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.</i>		<i>(Choose statement 1, 2 or 3)</i>
Additional Breadth (3 credits) <i>(Choose approach that is different from the approach of the Major) Major/College requirements cannot satisfy this requirement and an AB course cannot be double-counted except in satisfying the Global Knowledge or U.S. Diversity co-requisites.</i>	3	<i>(Choose statement 5 or 6)</i>
Interdisciplinary Perspectives (5 credits) <i>Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.</i>		<i>(Choose statement 1, 2 or 3)</i>
Health and Exercise Studies (2 credits) <i>(Including one Fitness and Wellness course)</i>	2	<i>Choose course(s) from the University Approved GEP course list for this category.</i>
Total credit hours needed to complete GEP that are <u>not</u> satisfied as part of the Major/College requirements.	hours	
GEP Co-Requisites:		Courses taken in the Major, GEP, or Minor may double-count to fulfill the co-requisites. Courses that satisfy the U.S. Diversity or Global Knowledge co-requisite are marked on course lists with a "USD" or "GK" indicator.
U.S. Diversity co-requisite (USD)	n/a	<i>(Choose statement 1 or 4)</i>
Global Knowledge co-requisite (GK)	n/a	<i>(Choose statement 1 or 4)</i>

Foreign Language Proficiency	n/a	Proficiency at the FL_102 level required.
The following requirements must be satisfied within the College/Program:		Place an X in the credit hour box to indicate below that the requirement is "Satisfied by College/Program Requirements"
Communication in the Major (Advanced Communication)		Satisfied by College/Program Requirements
Technology Fluency		Satisfied by College/Program Requirements
Total credit hours required to complete Degree: Total must be within 120-128 credit hours.	124	As applicable, indicate here the overall GPA requirement for degree completion including course completion.

SIGNATURE PAGE

CURRICULUM ACTION FOR 14 IEBS

RECOMMENDED By:



HEAD, DEPARTMENT/ PROGRAM

1/30/19

DATE

ENDORSED By:



CHAIR, COLLEGE COURSE & CURRICULA COMMITTEE

31 Jan 19

DATE



COLLEGE DEAN

1/31/19

DATE

APPROVED By:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) DATE

APPROVED EFFECTIVE DATE _____

Industrial Engineering (BS) (14IEBS)

Freshman Year

Fall Semester	Credit	Spring Semester	Credit
CH 101 Chemistry, A Molecular Science ¹	3	EC 205 Economics (or EC 201 or ARE 201*)	3
CH 102 General Chemistry Lab ¹	1	MA 241 Calculus II ¹	4
E 101 Introduction to Engr & Prob Solv ^{1,2}	1	PY 205 Physics for Engr & Sc I ¹	3
E 115 Intro to Computing Environ ^{1,2}	1	PY 206 Physics for Engineers & Scientists I Lab ¹	1
ENG 101 Academic Writing and Research ^{1,2}	4	HES_*** Health & Exercise Studies Course	1
MA 141 Calculus I ¹	4	E 102 Engineering in the 21st Century (GEP-IP)	2
HES_*** Health & Exercise Studies Course*	1		
	15		14

Sophomore Year

Fall Semester	Credit	Spring Semester	Credit
MSE 200 Mechanical Properties of Structural Materials	3	ECE 331 Prin of Elect Engr	3
ISE 110 Comp Model for Engrs ³	3	ISE 215 Product Specification	1
MA 242 Calculus III	4	ISE 216 Mfg Engr Practicum	3
PY 208 Physics for Engineers & Scientists II	3	MA 303 Linear Analysis	3
PY 209 Physics for Engineers & Scientists II Lab	1	ST 372 Intro Stat Infer & Regres	3
ST 371 Intro Prob & Dist Theory ²	3	Engr Science Elect ⁴	3
	17		16

Junior Year

Fall Semester	Credit	Spring Semester	Credit
ENG 331 Tech Writing	3	ISE 352 Fundamentals of Human-Machine Systems Design	4
ISE 316 Mfg Engr I – Processes	3	ISE 362 Stochastic Models in IE	3
ISE 315 Product Specification II	1	ISE 443 Quality Control	3
ISE 441 Intro to Simulation	3	Technical Elective ⁶	3
ISE 361 Deter Models in IE	3	CE 214 Engineering Mechanics – Statics	3
Ethics (GEP Req*) ⁵	3		
	16		16

Senior Year

Fall Semester	Credit	Spring Semester	Credit
ISE 311 Engr Economic Analysis	3	ISE 498 Sr Design Proj	3
ISE 408 Cont of Prod & Ser Sys	3	Technical Elective ⁶	3
Technical Elective ⁶	3	GEP Requirement*	3
ISE 453 Production Systems Design	3	GEP Requirement*	3
GEP Requirement*	3	GEP Requirement*	3
	15		15

Minimum Credit Hours Required for Graduation:

124

NORTH CAROLINA STATE UNIVERSITY
UNDERGRADUATE CURRICULUM ACTION FORM
Academic Minor

DEPARTMENT(S):

Biological Sciences

TITLE OF THE MINOR: Global Health

TYPE OF PROPOSAL:

New Minor: X

Revision to Minor:

Discontinuation:

PROPOSED EFFECTIVE DATE: Fall 2019

APPROVED EFFECTIVE DATE: _____

ATTACHMENTS INCLUDED:


1. Statement of Justification
2. Statement of Academic Minor Program Objectives
3. List of Courses constituting the Proposed Minor
4. Catalog Description of Proposed Minor
5. Administration of the Minor (Contact information for Administrator of the Minor)
6. Requirements for Admission and Completion of the Minor
7. Statement on Other Departments Likely to be Affected and Summary of Consultations with those Departments
8. Optional: Projected Resources and Enrollment

REQUIRED SIGNATURES:

OTHER REQUIRED SIGNATURES AS NEEDED:

 12/3/18
 Head, Department/Program Date

 1/29/19
 Chair, College Curriculum Committee Date

 1/29/19
 College Dean Date

 Chair, College Curriculum Committee Date

 College Dean Date

 Chair, University Courses & Curricula Committee Date

 Dean Undergraduate Academic Programs Date

Minor in Global Health (17GHM) (Department of Biological Sciences)

1. Justification

Global Health is a complex field, relying not only on the immediate impacts of disease and poor sanitation, but also on the social determinants of poverty, education, access and culture. Scientific advances must be understood through an interdisciplinary framework, involving not only the transferring of technology but also the context in which they will be implemented. This requires an understanding of the social, behavioral, and political sciences as well as the natural sciences. The Global Health minor provides opportunities for students to make connections between topics in their major fields of study and global health challenges, and to develop interdisciplinary approaches to addressing global health needs.

2. Program Objectives

After completing a minor in Global Health, students will be able to:

- articulate a broad range of challenges and interventions in Global Health
- critically apply multiple perspectives to understanding Global Health issues including historical, political, geographical, economic, social, technological, biological, etc.
- draw connections and distinctions between health issues from the local to the global community.
- identify and use Global Health resources, tools and methods.

3. List of courses -- see pages 3-4

4. Catalog Description -- see page 3

5. Administration of the Minor -- see page 4

6a. Requirements for Admission -- see page 4

6b. Requirements for Completion of the Minor -- see page 3

7. Other Departments Likely Affected

All required courses are taught within our department. Colleges offering courses listed on the electives list have been notified and consultations requested.

Consultations requested from:

John Dole - Associate Dean and Director, Academic Programs, College of Agriculture and Life Sciences

Gary Bank, Interim Associate Dean for Academic Affairs, College of Natural Resources

Karen Karen R Young, Assistant Dean for Academic Affairs and Director of Undergraduate Programs, College of Humanities and Social Sciences

Global Health Minor (17GHM) -- page 3

from: **John Dole**
<jmdole@ncsu.edu>

Jonathan Olson
to: <jwolson@ncsu.edu>

date: Nov 18, 2018, 4:21 PM

subject: Re: Public Health Minor
consult

Jonathan,

So far, I have heard back from Derek Aday, Department Head of Applied Ecology, who stated that "This looks like a good minor to me and I'm supportive. I should note that I teach the AEC 380 course that is listed and I'm currently not offering it." I also contacted Food, Bioprocessing and Nutritional Science Department for comment and will send when I receive it.

Sincerely,

John Dole

from: **Gary Blank**
<gblank@ncsu.edu>

to: jwolson@ncsu.edu

date: Nov 16, 2018, 6:12 AM

Jonathan,

We think including these as electives in the minor sounds fine. Jennifer Richmond Bryant added a comment: "it wouldn't take a lot of adjustment to make ET 320 (Fundamentals of Air Pollution) fit under the global health framework if you wanted an air option to complement the water option. The air quality already contains several lectures relating to public health."

Dr. Gary B. Blank
Alumni Distinguished Undergraduate Professor
College of Natural Resources
Box 8001
North Carolina State University
Raleigh, North Carolina 27695-8001
919.513.7617 (T/Th) or 515-7566 (M/F)

Deanna Dannels <dpdannel@ncsu.edu>
Dec 4, 2018, 1:46 PM
to me, Jamila, Karen

Hi Jonathon--

Karen Young forwarded your request for consultation regarding the Global Health Minor. We have consulted with representatives in Philosophy and Religious Studies, International Studies, Science Technology and Society, Sociology and Anthropology, and Political Science.

The faculty we consulted were very much in support of the creation of a minor in Global Public Health and there were recommendations that an additional two of our courses be added to the list of offerings: ANT 374 Disease and Society, and ANT 450 Culture, Ecology, and Sustainable Living. These courses may be appropriate as electives for Group I: Societal Aspects of Global Health.

The serious concern that was expressed was the inclusion of two courses that already have more student interest than can be supported; PHI/STS 325 and PHI 420 may need to be omitted from the list because we simply cannot handle any more students in those classes. Additionally, the future of PHI 420 looks uncertain and may not be offered in the near future.

I've cc'd Jamila, as well, as consultations are supposed to funnel through the Associate Deans (which is how I ended up with it).

Good luck!

Best,
Deanna

Response to consultations:

- ET320 was added to the elective group II as recommended by Gary Blank
- ANT374 and ANT540 were added to elective group I as recommended by Deanna Danials
- PHI325 was retained on on the group I elective. We will not requesting extra seats for these students. Some of the target students for the minor will come from majors that already have PHI325 as required or elective options, so we would like to keep the degree flexible for these students.
- GPH 425 will not be offered Summer 2019

Proposed:

Global Health Minor (17GHM)

Description

The minor in Global Health provides undergraduate students with an understanding of current global health challenges, and an appreciation of interdisciplinary approaches to addressing global health needs. Offered by the Department of Biological Sciences, the Global Health Minor is available to all baccalaureate degree students at North Carolina State University. This minor is especially appropriate for (but not limited to) students majoring in the life sciences, social sciences, engineering and international studies. At least 9 credit hours of the minor must be completed at NC State.

Requirements (18 credit hours total)

The Global Health Minor consists of a minimum of 18 credit hours.

- A grade of C- or better is required for all minor courses and a 2.0 GPA in the minor is required for graduation.

- No course used in the minor can be taken for credit only (S/U).
- Courses taken for the minor can also be used toward major requirements, GEP Electives, or Free Electives.
- At least 9 credit hours of the minor must be completed at NC State.

Required Courses (6 credit hours)

- GPH 201 Fundamentals of Global Public Health (3 cr)
- GPH 404 Epidemiology and Statistics in Global Public Health (3 cr)

Elective Courses (12 credit hours) -- Take 2 courses in each group, unless you replace one of those courses with 3 credits of the Experiential Learning Option

Group I: Societal Aspects of Global Health

- FS 540 Food Safety and Public Health
- International Studies: IS 200 Introduction to International Studies *-or-* IS 393 Theories of Globalization (3 cr)
- PHI 420 Global Justice (3 cr)
- PS 335 International Law (3 cr)
- PS 336 Global Environmental Politics (3 cr)
- SOC 350 Food and Society (3 cr) or NTR 330 Public Health Nutrition
- SOC 381 Sociology of Medicine (3 cr)
- STS (PHI) 325 Bio-Medical Ethics (3 cr)
- ANT 374 Disease and Society (3cr)
- ANT 450 Culture, Ecology, and Sustainable Living (3cr)

Group II: Scientific Aspects of Global Health

- AEC 380 Water Resources: Global Issues in Ecology, Policy, Management, and Advocacy 3 cr)
- Environmental Sciences: ES 150 Water and the Environment *-or-* ES 200 Climate Change and Sustainability (3 cr)
- GPH 425 Global Health and Physiology (can use 3 cr out of 6 cr total)*
- Microbiology: MB 200 Microbiology and World Affairs *-or-* MB 411 Medical Microbiology (3 cr)
- ET320 Fundamentals of air pollution (3 cr)

Experiential Learning Option -- Global Health Research or Immersion Experience (maximum 3 cr)

You can use up to 3 credits of relevant experiential learning toward the Electives requirement of 12 total. The focus of the research or immersion experience must be in global health and the experience must be approved by the Minor Coordinator (through review of the signed contract or syllabus specific to the course) prior to your beginning the work. Research and immersion experience must address at least one the core elements of global health: social determinants of health, implementation or evaluation of a global health program, or investigation that impacts global health. Options include BSC 492, BSC 493, BSC 494, BSC498, USC 250, and 3 credits of GPH 425*.

*GPH 425 is currently a 6 credit course -- 3 credits of coursework and 3 credits of experiential learning.

Other relevant courses, including some capstone and special topics course offerings, can be approved by the Minor Coordinator on a case-by-case basis after review of the syllabus and discussions with the course instructor where necessary. These activities must address at least one the core elements of global health: social determinants of health, implementation or evaluation of a global health program, or investigation that impacts global health.

Pre-requisite course notification: A number of courses in the minor require prerequisite courses. Thus, the minor is not one that is begun in the freshman year, but rather later on, after foundation courses in science, social science and humanities have been taken. Still, it is best to think about this minor as early as possible in your academic career so that you can incorporate any pre-requisites for future minor courses into your existing degree requirements. Allowances for counting a course toward both a major and a minor differ between different Colleges at NC State.

Admission to the Minor

Students who plan to minor in Global Health should contact the contact person listed below for information on how to do so. Students are strongly encouraged to declare the minor early in their studies so they receive information on relevant courses, events, and other opportunities from the Department of Biological Sciences.

Completion of the Minor

All requirements for the minor must be completed no later than the semester in which the student expects to graduate from his or her major degree program. Students apply to graduate in the minor through MyPack at the same time that they apply to graduate in their major program.

Contact Person

Kim Orłowski
Bostian Hall 2727
919-515-3341
BioSciHelp@ncsu.edu

Coordinator

Dr. Julie Casani
Student Health Services
919-513-3290
jppierso@ncsu.edu