



University Courses & Curricula Committee 2019-2020

November 6, 2019
Talley Student Union 5101
12:45pm-2:45pm

Call to Order 12:45pm

- Welcome from Chair Rudi Seracino
- Remarks and Updates from OUCCAS/DASA
- Approval of UCCC October 23rd 2019 Minutes
- Course and Curricular Business

New Business

Consent Agenda		
Action	Type	Notes
BUS 459 Business Analytics Practicum	Minor	Revisions: Requisites
* ECE 536 Digital Control System Projects	Minor	Revisions: Major, but removing BME crosslisting and Undergraduate dual level.
GSP 250 Goodnight Scholars Seminar I	Minor	Revisions: Title, instructional resource statement, term offering
GSP 251 Goodnight Scholars Seminar II	Minor	Revisions: Title, instructional resource statement, term offering
* HESO 281 Challenge Course and Team Building Facilitation	Minor	Revisions: Title
* HESO 283 Mountaineering	Minor	Revisions: Title
* HESS 246 Handball	Minor	Revisions: Title
* MB 412 Medical Microbiology Laboratory	Minor	Revisions: Term Offering
* MB 452 Microbial Diversity Lab	Minor	Revisions: Term Offering
* MUS/AFS 260 History of Jazz	Minor	Revisions: Grading method
Microbiology (17MIBIOBS) subplans (4 actions)	Minor	Revisions: Reordering existing courses in displays
Meteorology (BS) 17METBS	Minor	Revisions: Edit footnotes
Meteorology (BS): Marine Sciences 17METBS-17METMAR	Minor	Revisions: Edit footnotes

College of Design			
Presenter	Reviewers	Action	Type
Schaffer	Driscoll, Hessling, Reynolds	Landscape Architecture Minor (12LND)	Revisions

College of Agriculture and Life Sciences			
Presenter	Reviewers	Action	Type
Merrill	Krause, Muse, Domingue	* AEC 424 Marine Fisheries Ecology	New Course

College of Sciences			
Presenter	Reviewers	Action	Type
Klesath	Kuzenski, Carlson Welch, Roise	* MEA 369 Life on Earth: Principles of Paleontology	Revisions: Title, description, hours, SLOs, eval methods

Poole College of Management			
Presenter	Reviewers	Action	Type
Kuzenski	Fitzpatrick, Rucker, Simpson	Business Analytics Honors Program	Revisions

College of Humanities and Social Sciences			
Presenter	Reviewers	Action	Type
Driscoll	Kuzenski, Merrill, Marshall	ENG 493 Special Topics in Rhetoric and Professional Writing	Revisions: Title, description, SLOs, eval methods
Gruehn	Domingue, Muse, Roise	SOC 211 Community and Health	New Course

University College			
Presenter	Reviewers	Action	Type
Domingue	Bruce, Shin, Marshall	*SLC 401 Independent Study in Leadership Theory Application	New Course
Carlson Welch	Hessling, Gruehn, Driscoll	MUT Prefix Proposal	New Prefix

SLO= Student Learning Outcomes

***=Course Action Initiated Before October 1, 2019**

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



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University Courses and Curricula Committee

October 23, 2019
Talley Student Union 5101
Call to Order: 12:45 pm

Members Present: Wendy Krause (Chair Elect), Kanton Reynolds, Melissa Merrill, Daniel Gruehn, Catherine Driscoll, Kathleen Rieder, Peter Hessling, Peggy Domingue, Rucker Rob, Jackie Bruce, Annie Carlson Welch, John Kuzenski, Melissa Merrill, Kanton Reynold, Joseph Roise, Kristen Schaffer, Coleman Simpson, Chloe Shin, Spencer Muse, Lisa Marshall

Members Absent: Chair Rudi Seracino, Marta Klesath (past chair), David Fitzpatrick

Guests: Dave Presutti, Jason DeRousie, Kathleen Rieder

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

WELCOME AND INTRODUCTIONS

- **Remarks from Chair Elect Wendy Krause** - Welcomed the committee members and introduced the guests and proxies.
- **Remarks from OUCCAS/DASA**- None
- **Office Of Assessment Presentation**
- **Approval of the Minutes from October 9th 2019** – Approved Unanimously
 - Discussion: Member Jackie Bruce moved to approve.

OLD BUSINESS

- **CS 418/(518) Introduction to Regulatory Science in Agriculture** - Approved Unanimously
Discussion: Member Melissa Merrill moved to approve.

NEW BUSINESS

- **Consent Agenda** - Approved Unanimously
Discussion: Member Peggy Domingue moved to approve.
- **BUS 476 Decision Modeling and Analysis**- Approved Unanimously
Discussion: Member John Kuzenski presented the new course action and introduced guest Jason DeRousie who indicated if students from statistics are interested in the course they will be allowed to. Chair suggested speaking to the College of Textiles to insure they are aware.
- **14BMHBS Biomedical Engineering (BS)** - Approved Unanimously
Discussion: Member Kanton Reynolds presented the curricular action. Member expressed confusion because the SIS code seems to no longer be taking students. The code should be 14BMHBS and not 14BMHBS. Presenter explained that they are having students take a particular course to meet the ABET requirement and the GEP IP requirements. Member was satisfied with the clarified SIS code and explanation. The college is planning to give exceptions to students who have fulfilled IP before the effective date.
- **Supply Chain Engineering** - Approved Unanimously
Discussion: Member Lisa Marshall presented the new minor action and introduced Jason DeRousie from PCOM as a guest who was involved with this proposal. Member asked by ISE 135 not a required course, PCOM does not require for Math 141 and E 115 and asked if there would be exceptions because there would be difficulty for non PCOM majors. Guest Jason DeRousie indicated there is a pre and co requisite that will be waived for non PCOM courses. Other targeted students who are on paths with both Engineering and Management would not have this issue.
- **Art and Design (Bachelor)** - Approved Unanimously
Discussion: Member Kristen Schaffer presented the curricular action and introduced the guest Kathleen Rieder, the head of the Art and Design department. Guest reminded the committee that the curriculum change was made back in April, but when the Dean met with upset students and the faculty agreed that this previously passed curriculum action be rolledback to the old curriculum with some small additional changes (ADN 400 should be ADN 204). Guest explained that there was a needed 6 credit hour studio class as an expectation. Members asked why this was an issue. Presenter and guest provided insight as the scheduling, cultural, and space challenges. Guest asked if other departments have had this issue. Li responded that during the 120 credit hour mandate some departments made

additional changes. Member asked why the "Free Electives" was highlighted, guest responded this was from the original change to bring the credit hours to 120.

- **Landscape Architecture Minor (12LND)– Withdrawn Until New Courses are Approved**
Discussion: Member Kristen Schaffer presented the minor action.
- **BAE 486/(586) Aquacultural Engineering– Tabled with Suggestion**
Discussion: Member Jackie Bruce presented the new course action. Member brought attention to the 1st Student Learning Outcome should remove (Good student responses will be compiled into an (anonymous) shared document for all) and "demonstrate understanding", "apply knowledge" and "create unique class projects" are unmeasurable. Member moved to table the action and was approved. Jordan said the Office of Assessment is available and willing to assist with this process.
Member asked if the Effective date was alright, Li explained this is alright for a new course but obviously students can only enroll in the dates in the future.
Member indicated that the "Midterm" and "Final Exam" say none in the details and that they don't have an additional attendance policy and suggested including an attendance policy
- **PY 123 Stellar and Galactic Astronomy- Tabled with Suggestion**
Discussion: Member Spencer Muse I presented the new course action as Table based on the need for a Student Learning Outcome revision because terms like "gain familiarity" and "gain a cosmic perspective" and the others that are not measurable, presenter also brought attention to the GEP objective (NS) and that the outcomes, but the members, chair, and Li explained that GEP outcomes are out of the purview of UCCC.
- **PY 212 College Physics II- Tabled with Suggestion**
Discussion: Member Spencer Muse presented the new course action. Member brought attention to the Student Learning Outcome there are about 145, and indicated about 5 are not measurable. Member asked how they can have that the learning outcomes are subject to change which are lecture outcomes and lab outcomes. Member asked what the student learning outcomes are for, assessment or accreditation, Li explained that this is for the students and assessment. CIM says the GEPs are the SLOs, but in the syllabus there are these additional outcomes. Presenter asked if there is a limit to the number of SLOs and that having so many leaves little to no room for change in the course. The office of Assessment indicated that the GEP category should not change from section offering to section offering and that what's more common is 4-7 outcomes which seems more practice. Assessment and members indicated that including all these outcomes on a professor's individual syllabus would be fine as a study guide of sorts, but for the CIM record that doesn't seem as reasonable. Member indicated that this maybe physically impossible based on the timing, member indicated that the timing is possible. Member moved to table the motion, motion is approved. Member brought attention to "top hat" and indicated that if a student's battery dies on their device or not working for any reason the student won't be given credit for attendance or quizzes and suggested finding an alternative for students who are in attendance but run into technical issues.
Members discussed what to do with the 145 outcomes. Member suggested reminding the college that these could be included in the syllabus for individuals, but for every time a SLO is updated will need to be updated in the CIM record in the future and that the 145 outcomes will need to have measures.
Tabled-Removing understand from about 5 SLOs and removing the language indicating that the outcomes are subject to change.
Suggestion- Every time you update a SLO that is a major action in CIM. Suggestion to have general SLOs for all offerings in CIM.
- **Environmental Education - Approved Unanimously**
Discussion: Member Joseph Roise presented the new minor action.
- **HESM 395 Special Topics in Health and Exercise Studies- Approved Pending with Suggestion**
Discussion: Member Annie Carlson Welch presented the course action. Member indicated the syllabus will need an updated Disability Resources Statement. Member moved to amend the motion from approved to approved pending the update to the DRO statement, motion to amend approved. Member brought attention to the late assignments indicating no late assignments will be accepted but that an excused absence would be acceptable to have late assignments. Members suggested clarifying this in the syllabus.
- **HON 341 Time Travel- Approved with Suggestion**
Discussion: Member Annie Carlson Welch presented the course action. Member brought attention to page ten of the syllabus indicating students should not expect any leniency once an exam has been given, however for an excused absence, this seems harsh if someone were to get sick the day of the exam. Members suggested removing the sentence "Don't expect any leniency....due date has passed."

Member asked if the catalog description should include who David Lewis is, members and XONV members determined that this is acceptable.

➤ **HON 348 Emotion and Reason - *Approved Pending***

Discussion: Member Peggy Domingue presented the new course action as approved pending the inclusion of the number of credits and PRR statements required in the syllabus. Member asked if a consultation is required from Philosophy and Psychology procedurally. Member indicated Psychology was supportive when this was originally presented and that the course is taught by a Philosophy professor. Member wanted to point out that this is a philosophy of science course which is different from a philosophy and psychology course.

➤ **HON 360 Music and Oppression - *Approved Pending***

Discussion: Member Peggy Domingue presented the new course action as approved pending the DRO statement being updated. Member asked about the course materials in the syllabus and if the content needs to be included or if specific labeling is required. Li responded that the content needs to be in the syllabus but not with a particular label.

Discussion:

Meeting adjourned at 2:02 pm

Respectfully submitted by Lexi Hergeth



College of Sciences

Department of Biological Sciences

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Date: September 12, 2109
To: Brett Smith, Interim Dean, DASA
From: Jonathan Olson, Director of Undergraduate Microbiology Programs
Re: Minor Microbiology Curriculum Actions

Proposed Changes and Justification

The Microbiology program is proposing to change the semester by semester curriculum (Format A) for the BS degree and all concentrations. The change is to move General microbiology and laboratory (MB 351 and MB 354) from the second to the first semester of Sophomore year. This change will encourage students to take MB electives earlier in their career and better reflects the order in which these courses are typically taken. Other changes to the Format A (described below for each concentration) will be needed to adjust credit hours per semester and in some cases to make better use of available laboratory space. There is no change to Format B for any curriculum.

17MBIOBS – Bachelor of Science in Microbiology (no concentration)

Format A

- MB 351 and MB 354 have been moved to the Fall Semester Sophomore year
- MB 411 and MB 412 have been moved to Spring Semester Sophomore year
- ST 311 and the Physical Education/Healthy living elective have been moved to Fall Semester Junior year
- MB 451, MB 452, and MB 480 have been moved to Fall Semester Senior year
- The gene expression and a free elective have been moved to Spring Semester Senior year.

17MBIOBS-17MBIOMBR – Bachelor of Science in Microbiology, Microbial Research Concentration

Format A

- MB 351 and MB 354 have been moved to the Fall Semester Sophomore year
- MB 411, MB 412, and MB 360 have been moved to Spring Semester Sophomore year
- ST 311 and the Physical Education/Healthy living elective have been moved to Fall Semester Junior year
- A microbial research elective has been moved to Fall semester Junior year
- MB 451, MB 452, and MB 480 have been moved to Fall Semester Senior year
- The gene expression and a GEP humanities elective have been moved to Spring Semester Senior year.

17MBIOBS-11MBIOMBT - Bachelor of Science in Microbiology, Microbial Biotechnology Concentration

Format A

- MB 351 and MB 354 have been moved to the Fall Semester Sophomore year
- MB 411 and MB 412 have been moved to Spring Semester Sophomore year
- ST 311 and the Physical Education/Healthy living elective have been moved to Fall Semester Junior year
- The gene expression and a free elective have been moved to Spring Semester Senior year.

17MBIOBS-17MBIOHS - Bachelor of Science in Microbiology, Microbial Health Science Concentration

Format A

- MB 351 and MB 354 have been moved to the Fall Semester Sophomore year
- MB 411 and MB 412 have been moved to Spring Semester Sophomore year
- ST 311 and the Physical Education/Healthy living elective have been moved to Fall Semester Junior year
- MB 451, MB 452, and MB 480 have been moved to Fall Semester Senior year
- The gene expression and a free elective have been moved to Spring Semester Senior year.

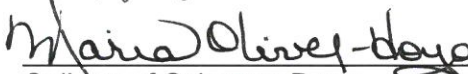
SIGNATURES (AS REQUIRED):

 10/8/19

Head, Dept. of Biological Sciences Date

 10/9/19

Chair, College Curriculum Committee Date

 10/9/19

College of Sciences Dean Date

Chair, University Courses & Curriculum Committee Date

PROPOSED DATE: 1 Jan 2020

Dean, Academic and Student Affairs Date

APPROVED EFFECTIVE DATE: _____

GEP FORMAT A
(SEMESTER-BY-SEMESTER CURRICULUM DISPLAY)

Current: Proposed: X

DEGREE TITLE: Bachelor of Science in Microbiology
CONCENTRATION TITLE: N/A
CURRENT DEGREE KEY: 17MBIOBS

FRESHMAN YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
BIO 181 Intro Biology: Ecol, Evol, Biodiversity ¹	4	BIO 183 Intro Biology: Cellular & Molecular ¹	4
CH 101 Chem Molecular Sci ¹	3	CH 221 Organic Chem I ¹	3
CH 102 Gen Chem Lab ¹	1	CH 222 Organic Chem I lab ¹	1
LSC 101 Critical Creative Thinking Life Sci ¹	2	ENG 101 Acad Writing Rsrch	4
MA 131 Calculus I ^{1,2}	3	Free elective	3
MB 103 Intro Topics Micro ³	1		
Fitness and Wellness Course *	1		
	Total:15		Total:15
SOPHOMORE YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CH 223 Organic Chem II ¹	3	CH 201 Chem Quant Sci ¹	3
CH 224 Organic Chem II lab ¹	1	CH 202 Chem Quant Lab ¹	1
PY 211 Gen Physics I ^{1, 4}	4	PY 212 Gen Physics II ^{1,6}	4
ST 311 Intro Statistics ^{4,5}	3	GEP Humanities Elective *	3
GEP Social Science Elective *	3	MB 351 Gen Microbiol ⁴	3
Physical Education/Healthy Living Elective *	4	MB 354 Inquiry Guided Micro Lab ⁴	4
MB 351 Gen Microbiol ¹	3	MB 411 Medical Micro ¹	3
MB 354 Inquiry Guided Micro Lab ¹	1	MB 412 Med Micro Lab ¹	1
	Total:15		Total:15
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ENG 333 Comm Sci Res	3	Cell/Physiology Elective ^{1,7}	3
GN 311 Princ Genetics ¹	4	Biochemistry elective ^{1, 11}	4
MB 411 Medical Micro ⁴	3	Laboratory Elective ^{1, 8}	3
MB 412 Med Micro Lab ⁴	4	GEP Additional Breadth Elective *	3
GEP Social Science Elective *	3	Microbiology elective ^{1, 9}	3
ST 311 Intro Statistics ^{1,5}	3		
Physical Education/Healthy Living Elective *	1		
	Total:14		Total:16
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
MB 414 Metabolic Reg ¹	3	MB 480 Topical Issues Micro ⁴	4
Gene Expression Elective ^{4,10}	3	MB 451 Micro Diversity ⁴	3
Microbiology Elective ^{1, 9}	3	MB 452 Micro Diversity lab ⁴	2
Free Elective	3	Microbiology Elective ^{1, 9}	3
GEP Humanities Elective *	3	GEP IP Elective *	3
MB 451 Micro Diversity ¹	3	Free Elective	3
MB 452 Micro Diversity lab ¹	2	Gene Expression Elective ^{1, 10}	3
MB 480 Topical Issues Micro ¹	1	Free Elective	3
	Total:15		Total:15
Minimum Credit Hours Required for Graduation*: 120			

Major/Program Footnotes:¹ A minimum grade of C- is required for these courses² or MA 141 (MA 131 recommended)³ or LSC 103⁴ or PY 201 or PY 205 (PY 211 recommended)⁵ or ST 371 for those with credit for MA 141 and MA 241 (ST 311 recommended)⁶ or PY 202 or PY 208 (PY 212 recommended)⁷ BIO 414, PB 414, BIO240, BIO 245, or PB 421⁸ At least 3 credits of GN 312, BCH 452, BEC 330, MB 360 or any 400-level BEC or BIT courses

⁹ Select at least 3 credit hours from MB/FS 405/406, MB 360 (cannot be double-counted with the Lab elective), BIT 410 (cannot be double-counted with the Lab elective), MB/BEC 420 (cannot be double-counted with the Lab elective), MB 441, MB 455, MB 461, MB 492, BSC 493, BSC 492, MB/SC 532

¹⁰ Either BCH 453 or GN 421 (formerly GN 413)

¹¹ Either BCH 351 or BCH 451

***General Education Program (GEP) requirements and GEP Footnotes:**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at <http://www.ncsu.edu/uap/academic-standards/gep/courselists/index.html>.

Mathematical Sciences (6 credit hours - one course with MA or ST prefix)

In Microbiology, this GEP requirement is met through the Major course requirements.

Natural Sciences (7 credit hours - include one laboratory course or course with a lab)

In Microbiology, this GEP requirement is met through the Major course requirements.

Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Physical Education/Healthy Living (2 credit hours - at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Physical Education/Healthy Living course list.

Additional Breadth - (3 credit hours to be selected from the following checked University approved GEP course lists) *Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.*

☒ Humanities/Social Sciences/Visual and Performing Arts or ☐ Mathematical Sciences/Natural Sciences/Engineering

Interdisciplinary Perspectives (5-6 credit hours)

Choose from the University approved GEP Interdisciplinary Perspectives course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.

Global Knowledge (GK)

Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.

Foreign Language proficiency - Proficiency at the FL_102 level is required for graduation.

GEP FORMAT A
(SEMESTER-BY-SEMESTER CURRICULUM DISPLAY)

Current: Proposed: X

DEGREE TITLE: Bachelor of Science in Microbiology
CONCENTRATION TITLE: Microbial Research
CURRENT DEGREE KEY: 17MBIOBS-17MBIOMBR

FRESHMAN YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
BIO 181 Intro Biology: Ecol, Evol, Biodiversity ¹	4	BIO 183 Intro Biology: Cellular & Molecular ¹	4
CH 101 Chem Molecular Sci ¹	3	CH 221 Organic Chem I ¹	3
CH 102 Gen Chem Lab ¹	1	CH 222 Organic Chem I lab ¹	1
LSC 101 Critical Creative Thinking Life Sci ¹	2	ENG 101 Acad Writing Rsrch	4
MA 131 Calculus I ^{1,2}	3	GEP Social Science Elective *	3
MB 103 Intro Topics Micro ³	1		
Fitness and Wellness Course *	1		
	Total:15		Total:15
SOPHOMORE YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CH 223 Organic Chem II ¹	3	CH 201 Chem Quant Sci ¹	3
CH 224 Organic Chem II lab ¹	1	CH 202 Chem Quant Lab ¹	1
PY 211 Gen Physics I ^{1, 4}	4	PY 212 Gen Physics II ^{1,6}	4
ST 311 Intro Statistics ^{4,5}	3	GEP Humanities Elective *	3
GEP Social Science Elective *	3	MB 351 Gen Microbiol ⁴	3
Physical Education/Healthy Living Elective *	1	MB 354 Inquiry Guided Micro Lab ⁴	1
MB 351 Gen Microbiol ¹	3	MB 360 Sci Inquiry Micro ¹	3
MB 354 Inquiry Guided Micro Lab ¹	1	MB 411 Medical Micro ¹	3
		MB 412 Med Micro Lab ¹	1
	Total:15		Total:15
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ENG 333 Comm Sci Res	3	Cell/Physiology Elective ^{1,7}	3
GN 311 Princ Genetics ¹	4	Biochemistry elective ^{1, 11}	4
MB 411 Medical Micro ⁴	3	Laboratory Elective ^{1, 8}	3
MB 412 Med Micro Lab ⁴	1	GEP Additional Breadth Elective *	3
Micro Research Elective ^{1, 9}	3	Micro Research Elective ^{1, 9}	3
ST 311 Intro Statistics ^{1,5}	3		
Physical Education/Healthy Living Elective *	1		
	Total:17		Total:16
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
MB 414 Metabolic Reg ¹	3	MB 480 Topical Issues Micro ⁴	1
Gene Expression Elective ^{4, 10}	3	MB 451 Micro Diversity ⁴	3
Micro Research Elective ^{4, 9}	3	MB 452 Micro Diversity Lab ⁴	2
Micro Research Elective ^{1, 9}	3	GEP IP Elective *	3
GEP Humanities Elective *	3	Micro Research Elective ^{1, 9}	3
MB 480 Topical Issues Micro ¹	3	Free Elective	3
MB 451 Micro Diversity ¹	2	Gene Expression Elective ^{1, 10}	3
MB 452 Micro Diversity Lab ¹	1	GEP Humanities Elective *	3
	Total:15		Total:15
Minimum Credit Hours Required for Graduation*: 120			

Major/Program Footnotes:¹ A minimum grade of C- is required for these courses² or MA 14 (MA 131 recommended)³ or LSC 103⁴ or PY 201 or PY 205 (PY 211 recommended)⁵ or ST 371 for those with credit for MA 141 and MA 241 (ST 311 recommended)⁶ or PY 202 or PY 208 (PY 212 recommended)⁷ BIO 414, PB 414, BIO240, BIO 245, or PB 421⁸ At least 3 credits of GN 312, BCH 452, BEC 330, MB 360 or any 400-level BEC or BIT courses

⁹ Select at least 3 credit hours from MB 492, or BSC 493, or BSC 492 (** 492, ** 493, ALS 498, ALS 499 with departmental approval)

¹⁰ Either BCH 453 or GN 421

¹¹ Either BCH 351 or BCH 451

***General Education Program (GEP) requirements and GEP Footnotes:**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at <http://www.ncsu.edu/uap/academic-standards/gep/courselists/index.html>.

Mathematical Sciences (6 credit hours - one course with MA or ST prefix)

In Microbiology, this GEP requirement is met through the Major course requirements.

Natural Sciences (7 credit hours - include one laboratory course or course with a lab)

In Microbiology, this GEP requirement is met through the Major course requirements.

Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Physical Education/Healthy Living (2 credit hours - at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Physical Education/Healthy Living course list.

Additional Breadth - (3 credit hours to be selected from the following checked University approved GEP course lists) *Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.*

X Humanities/Social Sciences/Visual and Performing Arts or ____Mathematical Sciences/Natural Sciences/Engineering

Interdisciplinary Perspectives (5-6 credit hours)

Choose from the University approved GEP Interdisciplinary Perspectives course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.

Global Knowledge (GK)

Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.

Foreign Language proficiency - Proficiency at the FL_102 level is required for graduation.

GEP FORMAT A
(SEMESTER-BY-SEMESTER CURRICULUM DISPLAY)

Current: Proposed: X

DEGREE TITLE: Bachelor of Science in Microbiology
CONCENTRATION TITLE: Microbial Biotechnology
CURRENT DEGREE KEY: 17MBIOBS-11MBIOMB

FRESHMAN YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
BIO 181 Intro Biology: Ecol, Evol, Biodiversity ¹	4	BIO 183 Intro Biology: Cellular & Molecular ¹	4
CH 101 Chem Molecular Sci ¹	3	CH 221 Organic Chem I ¹	3
CH 102 Gen Chem Lab ¹	1	CH 222 Organic Chem I lab ¹	1
LSC 101 Critical Creative Thinking Life Sci ¹	2	ENG 101 Acad Writing Rsrch	4
MA 131 Calculus I ^{1,2}	3	GEP Social Science Elective *	3
MB 103 Intro Topics Micro ³	1		
Fitness and Wellness Course *	1		
	Total:15		Total:15
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CH 224 Organic Chem II lab ¹	1	CH 202 Chem Quant Lab ¹	1
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ST 311 Intro Statistics ^{4,5}	3	GEP Humanities Elective *	3
GEP Social Science Elective *	3	MB 351 Gen Microbiol ¹	3
Physical Education/Healthy Living Elective *	1	MB 354 Inquiry Guided Micro Lab ¹	1
MB 351 Gen Microbiol ¹	3	MB 411 Medical Micro ¹	3
MB 354 Inquiry Guided Micro Lab ¹	1	MB 412 Med Micro Lab ¹	1
	Total:15		Total:15
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
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GN 311 Princ Genetics ¹	4	Biochemistry elective ^{1, 11}	4
MB 411 Medical Micro ¹	3	Laboratory Elective ^{1, 8}	3
MB 412 Med Micro Lab ¹	1	GEP Additional Breadth Elective *	3
Microbial Biotechnology Elective ^{1,9}	3	MB 455 Microbial Biotechnology ¹	3
ST 311 Intro Statistics ^{1,5}	3		
Physical Education/Healthy Living Elective *	1		
	Total:14		Total:16
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
MB 414 Metabolic Reg ¹	3	MB 480 Topical Issues Micro ¹	1
Gene Expression Elective ^{1,10}	3	MB 451 Micro Diversity ¹	3
Microbial Biotechnology Elective ^{1, 9}	3	MB 452 Micro Diversity Lab ¹	2
Free Elective	3	GEP IP Elective *	3
GEP Humanities Elective *	3	Microbial Biotechnology Elective ^{1, 9}	3
MB 451 Micro Diversity ¹	3	Microbial Biotechnology Elective ^{1,9}	3
MB 452 Micro Diversity lab ¹	2	Gene Expression Elective ^{1, 10}	3
MB 480 Topical Issues Micro ¹	1	Free Elective	3
	Total:15		Total:15
Minimum Credit Hours Required for Graduation*: 120			

Major/Program Footnotes:¹ A minimum grade of C- is required for these courses² or MA 141 (MA 131 recommended)³ or LSC 103⁴ or PY 201 or PY 205 (PY 211 recommended)⁵ or ST 371 for those with credit for MA 141 and MA 241 (ST 311 recommended)⁶ or PY 202 or PY 208 (PY 212 recommended)⁷ BIO 414, PB 414, BIO240, BIO 245, or PB 421⁸ At least 3 credits of GN 312, BCH 452, BEC 330, MB 360 or any 400-level BEC or BIT courses⁹ At least 3 credits of MB/BIT 210, MB/BIT 211, MB 420, MB 520, BBS/FS 426, BEC 422, BEC 488, BAE/BBS 425, BEC/CHE 463, BEC 480, BIT 410, BIT 466. (BEC 4**, BIT 4**, ** 492, ** 493, ALS 498, ALS 499 with departmental approval) Note that MB/BIT 210/211 are only offered to Freshmen, and so these would require moving these elective earlier in the curriculum.

¹⁰ Either BCH 453 or GN 421

¹¹ Either BCH 351 or BCH 451

***General Education Program (GEP) requirements and GEP Footnotes:**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at <http://www.ncsu.edu/uap/academic-standards/gep/courselists/index.html>.

Mathematical Sciences (6 credit hours - one course with MA or ST prefix)

In Microbiology, this GEP requirement is met through the Major course requirements.

Natural Sciences (7 credit hours - include one laboratory course or course with a lab)

In Microbiology, this GEP requirement is met through the Major course requirements.

Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Physical Education/Healthy Living (2 credit hours - at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Physical Education/Healthy Living course list.

Additional Breadth - (3 credit hours to be selected from the following checked University approved GEP course lists) *Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.*

☒ Humanities/Social Sciences/Visual and Performing Arts or ☐ Mathematical Sciences/Natural Sciences/Engineering

Interdisciplinary Perspectives (5-6 credit hours)

Choose from the University approved GEP Interdisciplinary Perspectives course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following **Co-Requisites** must be satisfied to complete the General Education Program requirements:

U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.

Global Knowledge (GK)

Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.

Foreign Language proficiency - Proficiency at the FL_102 level is required for graduation.

GEP FORMAT A
(SEMESTER-BY-SEMESTER CURRICULUM DISPLAY)

Current: Proposed: X

DEGREE TITLE: Bachelor of Science in Microbiology

CONCENTRATION TITLE: Microbial Health Science

CURRENT DEGREE KEY: 17MBIOBS-17MBIOHS

FRESHMAN YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
BIO 181 Intro Biology: Ecol, Evol, Biodiversity ¹	4	BIO 183 Intro Biology: Cellular & Molecular ¹	4
CH 101 Chem Molecular Sci ¹	3	CH 221 Organic Chem I ¹	3
CH 102 Gen Chem Lab ¹	1	CH 222 Organic Chem I lab ¹	1
LSC 101 Critical Creative Thinking Life Sci ¹	3	ENG 101 Acad Writing Rsrch	4
MA 131 Calculus I ^{1,2}	3	GEP Social Science Elective *	3
MB 103 Intro Topics Micro ³	1		
Fitness and Wellness Course *	1		
	Total:15		Total:15
SOPHOMORE YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
CH 223 Organic Chem II ¹	3	CH 201 Chem Quant Sci ¹	3
CH 224 Organic Chem II lab ¹	1	CH 202 Chem Quant Lab ¹	1
PY 211 Gen Physics I ^{1,4}	4	PY 212 Gen Physics II ^{1,6}	4
ST 311 Intro Statistics ^{4,5}	3	GEP Humanities Elective *	3
GEP Social Science Elective *	3	MB 351 Gen Microbiol ⁴	3
Physical Education/Healthy Living Elective *	1	MB 354 Inquiry Guided Micro Lab ⁴	1
MB 351 Gen Microbiol ¹	3	MB 411 Medical Micro ¹	3
MB 354 Inquiry Guided Micro Lab ¹	1	MB 412 Med Micro Lab ¹	1
	Total:15		Total:15
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ENG 333 Comm Sci Res	3	Cell/Physiology Elective ^{1,7}	3
GN 311 Princ Genetics ¹	4	Biochemistry elective ^{1,11}	4
MB 411 Medical Micro ⁴	3	Laboratory Elective ^{1,8}	3
MB 412 Med Micro Lab ⁴	1	GEP Additional Breadth Elective *	3
Microbial heath science elective ^{1,9}	3	Microbial heath science elective ^{1,9}	3
ST 311 Intro Statistics ^{1,5}	3		
Physical Education/Healthy Living Elective *	1		
	Total:14		Total:16
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
MB 414 Metabolic Reg ¹	3	MB 480 Topical Issues Micro ⁴	1
Gene Expression Elective ^{4,11}	3	MB 451 Micro Diversity ⁴	3
Microbial heath science elective ^{1,10,9}	3	MB 452 Micro Diversity Lab ⁴	2
Free Elective	3	Microbiology heath science elective ^{1,9}	3
GEP Humanities Elective *	3	GEP IP Elective *	3
MB 451 Micro Diversity ¹	3	Microbial Health Science Elective ^{1,10}	3
MB 452 Micro Diversity lab ¹	2	Gene Expression Elective ^{1,10}	3
MB 480 Topical Issues Micro ¹	1	Free Elective	3
	Total:15		Total:15
Minimum Credit Hours Required for Graduation*: 120			

Major/Program Footnotes:

¹ A minimum grade of C- is required for these courses

² or MA 141 (MA 131 recommended)

³ or LSC 103

⁴ or PY 201 or PY 205 (PY 211 recommended)

⁵ or ST 371 for those with credit for MA 141 and MA 241 (ST 311 recommended)

⁶ or PY 202 or PY 208 (PY 212 recommended)

⁷ BIO 414, PB 414, BIO240, BIO 245, or PB 421

⁸ At least 3 credits of GN 312, BCH 452, BEC 330, MB 360 or any 400-level BEC or BIT courses

⁹ Select at least 3 credit hours from MB/FS 405/406, MB 435, MB 441, MB 461, GPH 201, PHI/STS 325, GN 441

¹⁰ Either BCH 453 or GN 421

¹¹ Either BCH 351 or BCH 451

***General Education Program (GEP) requirements and GEP Footnotes:**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at <http://www.ncsu.edu/uap/academic-standards/gep/courselists/index.html>.

Mathematical Sciences (6 credit hours - one course with MA or ST prefix)

In Microbiology, this GEP requirement is met through the Major course requirements.

Natural Sciences (7 credit hours - include one laboratory course or course with a lab)

In Microbiology, this GEP requirement is met through the Major course requirements.

Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Physical Education/Healthy Living (2 credit hours - at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Physical Education/Healthy Living course list.

Additional Breadth - (3 credit hours to be selected from the following checked University approved GEP course lists) *Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.*

X Humanities/Social Sciences/Visual and Performing Arts or ___ Mathematical Sciences/Natural Sciences/Engineering

Interdisciplinary Perspectives (5-6 credit hours)

Choose from the University approved GEP Interdisciplinary Perspectives course list. Some of these courses fulfill the US Diversity or Global Knowledge co-requisites.

Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.

Global Knowledge (GK)

Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.

Foreign Language proficiency - Proficiency at the FL_102 level is required for graduation.



College of Sciences

Department of Marine, Earth,
and Atmospheric Sciences

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Date: September 25, 2019
To: Dr. Bret Smith, Interim Dean, DASA
From: Carrie Thomas, Director Undergraduate Programs, MEAS
Subject: Minor Curriculum Action

Please by means of this memorandum, modify these undergraduate curricula as follows:

Titles: 17METBS (Spring 2019) and 17METBS-17METMAR (Spring 2019)

Proposed effective date: Fall 2019

Revision with reason: Revise the computing option in our meteorology degrees to include MEA 217 Introduction to Computing in the Geosciences.

- Current option: "An MEA computing course, MA 116, PY 251 or CSC 113."
- Revised option: "MEA 217, MA 116, PY 251 or CSC 113."

Technically, MEA 217 falls under the umbrella of an MEA computing course, but the degree audit does not recognize the course as meeting the requirement. This causes confusion for students and advisors. Adding the course number to the list in the audit will also ensure the course counts toward financial aid hours without the need for a manual move on the audit.

Endorsed By: *Lin D. Am*

30/9/2019

Head, Department/Program

Date

Recommended By: *Spencer Miller*

10/8/19

Chair, College Curriculum Committee

Date

Endorsed By: *Maria Oliver-Hoye*

10/9/19

College Dean

Date

Recommended By:

Chair, University Courses & Curricula Committee

Date

Approved By:

Dean, DASA

Meteorology (BS) (17METBS)

Critical Path Courses -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.

Freshman Year

Fall Semester	Credit	Spring Semester	Cred
CH 101 Chemistry- A Molecular Science ¹	3 CP	CH 201 Chemistry – A Quant Sci ^{3,6}	3
CH 102 General Chem Lab ³	1	CH 202 General Quant Lab ^{3,6}	1
MA 141 Calculus I ^{1,A}	4 CP	ENG 101 Academic Writing & Research ^{1,H}	4 CP
MEA 100 Earth System Science ^{2,G,J}	4 CP	MA 241 Calculus II ^{1,A}	4 CP
HES_*** Health & Exercise Studies Course ^E	1	MEA 215 Intro to Atmospheric Sciences ²	4 CP
COS 100 The Science of Change ^{5,G}	2		
	15		16

Sophomore Year

Fall Semester	Credit	Spring Semester	Cred
MA 242 Calculus III ³	4	MA 341 Appl Differential Equations I ³	3
MEA 321 Fund. of Air Quality & Climate Chg ²	3	MEA 312 Atmospheric Thermodynamics ²	4
PY 205 Physics for Engr & Sci I ^{1,B}	3 CP	MEA 315 Math. Methods in Atmos. Sci. ²	4
PY 206 Physics for Engineers & Scientists I Lab ^{3,B}	1	PY 208 Physics Engr & Sci II ^{3,B}	3
Computing Option ^{3,4}	3	PY 209 Physics for Engineers & Scientists Lab II ³	1
	14		15

Junior Year

Fall Semester	Credit	Spring Semester	Cred
Approved Elective ^{2,7}	3	Advanced Writing Elective ⁹	3
MEA 421 Atmospheric Dynamics I ¹	3	Approved Elective ^{2,7}	3
Geophysical Science Elective ^{2,3,8}	3	MEA 412 Atmospheric Physics ²	3
GEP Social Sciences Reqt. ^D	3	MEA 422 Atmospheric Dynamics II ¹	3
ST 370 Prob & Stat for Engineers ³	3	MEA 495 Junior Seminar in MEAS	1
		GEP Addt. Breadth Reqt. ^F	3
	15		16

Senior Year

Fall Semester	Credit	Spring Semester	Cred
Approved Elective ^{2,7}	3	Approved Elective ^{2,7}	3
Restricted Elective ^{2,10}	3	Restricted Elective ^{2,10}	3
GEP Humanities Requirement ^C	3	Restricted Elective ^{2,10}	3
HES_*** Health & Exercise Studies Course ^E	1	GEP Humanities Reqt. ^C	3
MEA 443 Synoptic Weather Analysis & Forecast ²	4	GEP Social Sciences Reqt. ^D	3
	14		15

Minimum Credit Hours Required for Graduation^{*,I,J,K}:

120

Major/Program Footnotes

1. Grade of C- or higher required in CH 101; ENG 101; MA 141, 241; MEA 421, 422; and PY 205.
2. No more than one D will be accepted in MEA or Approved Elective courses.
3. No more than one additional D will be accepted in other math or science courses.
4. Computing Option: (~~Delete: An MEA computing course,~~) MEA 217, MA 116, PY 251 or CSC 113.
5. COS 100 is for new freshmen only. Transfer students will need to select a course from the GEP Interdisciplinary Perspectives course list.

6. Advanced transfer students are permitted to substitute mathematics, science, or engineering credits for CH 201, 202.
7. Approved Electives constitute a minor field of emphasis consisting of at least 12 credit hours in a single discipline or related disciplines. These include, but are not limited to: biometeorology, chemistry, computer science, environmental quality, geology-geophysics, hydrology, mathematics, physics, physical oceanography, statistics, several areas of engineering, agriculture, forestry, science education, weather communication.
8. Geophysical Science Elective is selected from among MEA 101, MEA 200, PY 123, PY 124, SSC 200.
9. Advanced Writing Elective must be selected from ENG 331, ENG 332, and ENG 333. The Advanced Writing Elective may not be used to satisfy the GEP Humanities requirement. It does satisfy the Communication in the Major Co-Requisite.
10. Any meteorology course at the 400 level or above. Course choice affects career options. See advisor for appropriate course selection.

*** General Education Program (GEP) requirements and GEP Footnotes**

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

A. Mathematical Sciences (6 credit hours; one course with MA or ST prefix)

*Choose from the University approved GEP Mathematical Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **MA 141 & MA 241***

B. Natural Sciences (7 credit hours; include one laboratory course or course with a lab)

*Choose from the University approved GEP Natural Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **PY 205, PY 206 & PY 208***

C. Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none

D. Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none

E. Health & Exercise Studies (2 credit hours – at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Health & Exercise Studies course list.

F. Additional Breadth (3 credit hours to be selected from the following checked University approved GEP course lists)

X Humanities/Social Sciences/Visual and Performing Arts

G. Interdisciplinary Perspectives (5-6 credit hours)

*Choose from the University approved GEP Interdisciplinary Perspectives course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **COS 100 & MEA 100***

H. Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following **Co-Requisites** must be satisfied to complete the General Education Program requirements

I. U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: none

J. Global Knowledge (GK)

*Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: **MEA 100***

K. Foreign Language proficiency Proficiency at the FL_102 level is required for graduation.

Meteorology (BS): Marine Sciences (17METBS-17METMAR)

Critical Path Courses -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.

Freshman Year

Fall Semester	Credit	Spring Semester	Credit
CH 101 Chem Molecular Sci ¹	3 CP	CH 201 Chem Quant Sci ³	3
CH 102 General Chem Lab ³	1	CH 202 Gen. Quant. Lab ^{3,6}	1
MA 141 Calculus I ^{1,A}	4 CP	ENG 101 Academic Writing & Research ^{1,H}	4 CP
MEA 100 Earth System Science ^{G,I,2}	4 CP	MA 241 Calculus II ^{1,A}	4 CP
HESF1** Health & Exercise Studies Course ^E	1	MEA 215 Intro to Atmospheric Sciences ²	4 CP
COS 100 The Science of Change ^{5,G}	2		
	15		16

Sophomore Year

Fall Semester	Credit	Spring Semester	Credit
MA 242 Calculus III ³	4	MA 341 Applied Diff. Equations I ³	3
MEA 321 Fund. of Air Quality & Climate Change ²	3	MEA 312 Atmospheric Thermodynamics ²	4
PY 205 Physics Engr & Sci I ^{1,B}	3 CP	MEA 315 Math. Methods in Atmos. Sci. ²	4
PY 206 Physics for Engineers & Scientists I Lab ^{3,B}	1	PY 208 Physics Engr & Sci II ^{3,B}	3
Computing Option ^{3,4}	3	PY 209 Physics for Engineers & Scientists II Lab ³	1
	14		15

Junior Year

Fall Semester	Credit	Spring Semester	Credit
MEA 200 Intro to Oceanography ²	3	Advanced Writing Elective ⁹	3
MEA 210 Oceanography Lab ²	1	Approved Elective ^{2,7}	2
MEA 421 Atmospheric Dynamics I ¹	3	MEA 412 Atmospheric Physics ²	3
Geophysical Science Elective ^{2,3,6}	3	MEA 422 Atmospheric Dynamics II ¹	3
GEP Social Science Reqt. ^D	3	MEA 495 Junior Seminar in MEAS	1
ST 370 Prob & Stat Engineers ³	3	GEP Social Science Reqt. ^F	3
	16		15

Senior Year

Fall Semester	Credit	Spring Semester	Credit
MEA 460 Physical Oceanography ²	3	Approved Elective ^{2,7}	3
MEA 455 Micrometeorology ²	3	MEA 462 Obser Methods in Marine Physics ²	3
GEP Humanities Reqt. ^C	3	MEA 467 Marine Meteorology ²	3
HES_*** Health & Exercise Studies Course ^E	1	GEP Humanities Requirement ^C	3
MEA 443 Syn Weather Anal & Forecast ²	4	GEP Social Science Reqt. ^D	3
	14		15

Major/Program Footnotes

1. Grade of C- or higher required in CH 101; ENG 101; MA 141, 241; MEA 421, 422; and PY 205.
2. No more than one D will be accepted in MEA or Approved Elective courses.
3. No more than one additional D will be accepted in other math or science courses.
4. Computing Option: (~~Delete: An MEA computing course,~~) MEA 217, MA 116, PY 251 or CSC 113.
5. COS 100 is for new freshmen only. Transfer students will need to select a course from the GEP Interdisciplinary Perspectives course list.
6. Advanced transfer students are permitted to substitute mathematics, science, or engineering credits for CH 201, 202.
7. Approved Electives should be selected in consultation with advisor.
8. Geophysical Science Elective is selected from among MEA 101, PY 123, PY 124, or SSC 200.
9. Advanced Writing Elective must be selected from ENG 331, ENG 332, and ENG 333. The Advanced Writing Elective may not be used to satisfy the GEP Humanities requirement. It does satisfy the Communication in the Major Co-Requisite.

* General Education Program (GEP) requirements and GEP Footnotes

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

A. Mathematical Sciences (6 credit hours; one course with MA or ST prefix)

*Choose from the University approved GEP Mathematical Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **MA 141, MA 241***

B. Natural Sciences (7 credit hours; include one laboratory course or course with a lab)

*Choose from the University approved GEP Natural Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **PY 205/PY 206, PY 208.***

C. Humanities (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Humanities course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none

D. Social Sciences (6 credit hours selected from two different disciplines/course prefixes)

Choose from the University approved GEP Social Sciences course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: none

E. Health & Exercise Studies (2 credit hours; at least one 100-level Fitness and Wellness Course)

Choose from the University approved GEP Health & Exercise Studies course list.

F. Additional Breadth (3 credit hours to be selected from the following checked University approved GEP course lists)

☒ Humanities/Social Sciences/Visual and Performing Arts

G. Interdisciplinary Perspectives (5-6 credit hours)

*Choose from the University approved GEP Interdisciplinary Perspectives course list or the following course(s) if completed as part of the Major requirements may fulfill part or all of this requirement: **MEA 100, COS 100***

H. Introduction to Writing (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following **Co-Requisites** must be satisfied to complete the General Education Program requirements

I. U.S. Diversity (USD)

Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: none

J. Global Knowledge (GK)

*Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: **MEA 100***

K. Foreign Language proficiency Proficiency at the FL_102 level is required for graduation.

CURRICULUM REQUIREMENTS

Format B

<u>Degree/Plan Title:</u> BS in Meteorology	<u>Plan SIS Code:</u> 17METBS
<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) Y	
<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>METEOROLOGY CORE</u> MEA 100 EARTH SYSTEMS SCIENCE MEA 215 INTRODUCTION TO ATMOSPHERIC SCIENCES MEA 312 ATMOSPHERIC THERMODYNAMICS MEA 315 MATHEMATICAL METHODS IN ATMOS SCI MEA 321 FUNDAMENTALS OF AIR QUALITY & CLIMATE CHANGE MEA 421 ATMOSPHERIC DYNAMICS I (C-wall) MEA 412 ATMOSPHERIC PHYSICS MEA 422 ATMOSPHERIC DYNAMICS II (C-wall) MEA 443 SYNOPTIC WEATHER ANALY & FCST MEA 495 JUNIOR SEMINAR IN MEAS MEA RESTRICTED ELECTIVE (any MEA >399)	4 CP 4 CP 4 4 3 3 3 3 4 1 9	Interdisciplinary Perspectives 4 hours Satisfies the Technology Fluency co-requisite
<u>MATH/STATISTICS/COMPUTER SCIENCE</u> COMPUTING OPTION (MEA 217, MA 116, PY 251 or CSC 113) MA 141 CALCULUS I (C-wall) MA 241 CALCULUS II (C-wall) MA 242 CALCULUS III MA 341 APPL DIFF EQ I ST 370 PROBABILITY & STATISTICS FOR ENGINEERS	3 4 CP 4 CP 4 3 3	Mathematics 4 hours Mathematics 2 hours
<u>CHEMISTRY/PHYSICS</u> CH 101 CHEM MOLECULAR SCI (C-wall) CH 102 GEN CHEM LAB CH 201 CHEM-A QUANTI SCI CH 202 QUANT CHEM LAB PY 205 PHYSICS FOR ENGINEERS & SCI I (C-wall) PY 206 PHYSICS FOR ENGINEERS & SCI I Lab PY 208 PHYSICS FOR ENGINEERS & SCI II PY 209 PHYSICS FOR ENGINEERS & SCI Lab II	3 CP 1 3 1 3 CP 1 3 1	Natural Sciences 3 hours Natural Sciences 1 hour Natural Sciences 3 hours
<u>GEOPHYSICAL ELECTIVE</u> GEOPHYSICAL ELECTIVE (MEA 101, MEA 200, PY 123, PY 124, or SSC 200)	3	
<u>APPROVED ELECTIVES</u> CONSULT WITH ADVISER (no course pattern) No more than one D will be accepted in MEA or Approved Elective courses. No more than one additional D will be accepted in other math or science courses.	12	

Concentration Courses/Groups/Electives:		
Free Electives:		
Total credit hours under Major Field of Study: <i>Minimum 27 hours required in program area.</i>	94 hours	
COLLEGE REQUIREMENTS:		
Orientation Course(s): COS 100 SCIENCE OF CHANGE	2	Interdisciplinary Perspectives 2 hours
Other: ADVANCED WRITING (ENG 331, ENG 332, OR ENG 333)	3	Satisfies Communication in the Major GEP co-requisite. May NOT be used to satisfy the GEP Humanities requirement.
Total credit hours under College Requirements:	5 Hours	

<u>NCSU GENERAL EDUCATION PROGRAM REQUIREMENTS</u> <i>Courses in the Major and/or Minor may also fulfill a General Education requirement; however, a GEP category may not be subset to require a specific course from the category list. Required courses must be listed in the Major/College requirements.</i> <i>Specific courses should not be listed in any of the fields below other than ENG 101.</i>		<u>At least one of the following must be listed:</u> 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 X 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>	Credit hours	How will the GEP requirement be met? (Choose applicable statement from 1-6 listed above)
Mathematical Sciences (6 credits) (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.	X	(Choose statement 1, 2 or 3) Minimum requirements are satisfied by Major/College course requirements.
Natural Sciences (7 credits) (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.	X	(Choose statement 1, 2 or 3) Minimum requirements are satisfied by Major/College course requirements.
English 101 (C- or better required) (4 credits)	4	ENG 101
Humanities (6 credits) (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.	6	(Choose statement 1, 2 or 3) Choose course(s) from the University Approved GEP course list for this category.
Social Sciences (6 credits) (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.	6	(Choose statement 1, 2 or 3) Choose course(s) from the University Approved GEP course list for this category.
Additional Breadth (3 credits) (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.	3	(Choose statement 5 or 6) Choose course(s) from the University Approved GEP course lists for the Humanities/ Social Sciences/ Visual & Performing Arts.
Interdisciplinary Perspectives (5 credits) 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.	X	(Choose statement 1, 2 or 3) Minimum requirements are satisfied by Major/College course requirements.
Health and Exercise Studies (2 credits) (Including one Fitness and Wellness course)	2	Choose course(s) from the University Approved GEP course list for this category.
Total credit hours needed to complete GEP that are <u>not</u> satisfied as part of the Major/College requirements.	21 hours	

GEP Co-Requisites:			<i>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.</i>
U.S. Diversity co-requisite	(USD)	n/a	<i>(Choose statement 1 or 4) Choose course(s) from the University Approved GEP course list for this category.</i>
Global Knowledge co-requisite	(GK)	n/a	<i>(Choose statement 1 or 4) Co-requisite is satisfied by a Major/College course requirement.</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)		X	Satisfied by College/Program Requirements
Technology Fluency		X	Satisfied by College/Program Requirements
Total credit hours required to complete Degree: Total must be within 120-128 credit hours.		120 Total hours	As applicable, indicate here the overall GPA requirement for degree completion including course completion.

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>METEOROLOGY CORE</u>		
MEA 100 EARTH SYSTEMS SCIENCE	4 CP	Interdisciplinary Perspectives 4 hours
MEA 215 INTRODUCTION TO ATMOSPHERIC SCIENCES	4 CP	
MEA 312 ATMOS THERMODYN	4	
MEA 315 MATH METHODS IN ATMOS SCI	4	
MEA 321 FUND AIR QUALITY & CLIMATE CHG	3	
MEA 421 ATMOS DYNAMICS I (C-wall)	3	
MEA 412 ATMOSPHERIC PHYSICS	3	
MEA 422 ATMOS DYNAMICS II (C-wall)	3	
MEA 443 SYNOPTIC WEA ANALY & FCST	4	Satisfies the Technology Fluency co-requisite
MEA 495 JUNIOR SEMINAR IN MEAS	1	
<u>MATH/STATISTICS/COMPUTER SCIENCE</u>		
COMPUTING OPTION (MEA 217 , MA 116, PY 251 or CSC 113)	3	
MA 141 CALCULUS I (C-wall)		Mathematics 4 hours
MA 241 CALCULUS II (C-wall)	4 CP	Mathematics 2 hours
MA 242 CALCULUS III	4 CP	
MA 341 APPL DIFF EQ I	4	
ST 370 PROBABILITY & STATISTICS FOR ENGINEERS	3	
	3	
<u>CHEMISTRY/PHYSICS</u>		
CH 101 CHEM MOLECULAR SCI (C-wall)		
CH 102 GEN CHEM LAB	3 CP	
CH 201 CHEM-A QUANTI SCI	1	
CH 202 QUANT CHEM LAB	3	
PY 205 PHYSICS FOR ENGINEERS & SCI I (C-wall)	1	Natural Science 3 hours
PY 206 PHYSICS FOR ENGINEERS & SCI I Lab	3 CP	Natural Science 1 hour
PY 208 PHYSICS FOR ENGINEERS & SCI II	1	Natural Science 3 hours
PY 209 PHYSICS FOR ENGINEERS & SCI II Lab	3	
	1	
<u>GEOPHYSICAL ELECTIVE</u>		
GEOPHYSICAL ELECTIVE (MEA 101, PY 123, PY 124, or SSC 200)	3	
<u>APPROVED ELECTIVES</u>		
CONSULT WITH ADVISER (no course pattern)		
	5	
<u>Concentration Courses/Groups/Electives:</u>		
MEA 200 INTRO OCEANOGRAPHY	3	
MEA 210 OCEANOGRAPHY LAB	1	

MEA 455 MICROMETEOROLOGY MEA 460 PRIN PHYS OCEANOG MEA 462 METHODS MARINE PY MEA 467 MARINE METEOROLOGY	3 3 3 3	
No more than one D will be accepted in MEA or Approved Elective courses. No more than one additional D will be accepted in other math or science courses.		
Free Electives:		
Total credit hours under Major Field of Study: <i>Minimum 27 hours required in program area.</i>	94 hours	
COLLEGE REQUIREMENTS:		
Orientation Course(s): COS 100	2	Interdisciplinary Perspectives 2 hours
Other: ADVANCED WRITING: ENG 331, ENG 332, or ENG 333	3	Satisfies Communication in the Major GEP co-requisite. May NOT be used to satisfy the GEP Humanities requirement.
Total credit hours under College Requirements:	5 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 X 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>	Credit hours	How will the GEP requirement be met? <i>(Choose applicable statement from 1-6 listed above)</i>
Mathematical Sciences (6 credits) (At least 1 course with MA or ST prefix) <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>	X	(Choose statement 1, 2 or 3) Minimum requirements are satisfied by Major/College course requirements.
Natural Sciences (7 credits) (At least 1 lab course or course with a lab) <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>	X	(Choose statement 1, 2 or 3) Minimum requirements are satisfied by Major/College course requirements.
English 101 (C- or better required) (4 credits)	4	ENG 101
Humanities (6 credits) (Courses from two different disciplines) <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>	6	(Choose statement 1, 2 or 3) Choose course(s) from the University Approved GEP course list for this category.
Social Sciences (6 credits) (Courses from two different disciplines) <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>	6	(Choose statement 1, 2 or 3) Choose course(s) from the University Approved GEP course list for this category.
Additional Breadth (3 credits) (Choose approach that is different from the approach of the Major) <i>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	(Choose statement 5 or 6) Choose course(s) from the University Approved GEP course lists for the Humanities/ Social Sciences/ Visual & Performing Arts.
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>	X	(Choose statement 1, 2 or 3) Minimum requirements are satisfied by Major/College course requirements.

Health and Exercise Studies (Including one <i>Fitness and Wellness</i> course)	(2 credits)	2	Choose course(s) from the University Approved GEP course list for this category.
Total credit hours needed to complete GEP that are <u>not</u> satisfied as part of the Major/College requirements.		21 hours	
GEP Co-Requisites:			<i>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.</i>
U.S. Diversity co-requisite	(USD)	n/a	(Choose statement 1 or 4) Choose course(s) from the University Approved GEP course list for this category.
Global Knowledge co-requisite	(GK)	n/a	(Choose statement 1 or 4) Co-requisite is satisfied by a Major/College course requirement.
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)		X	Satisfied by College/Program Requirements
Technology Fluency		X	Satisfied by College/Program Requirements
Total credit hours required to complete Degree: Total must be within 120-128 credit hours.		120 Total hours	As applicable, indicate here the overall GPA requirement for degree completion including course completion.

Undergraduate Academic Programs - July 2008 (rev July 2012)

LANDSCAPE ARCHITECTURE MINOR (12LND)

DESCRIPTION

The Minor in Landscape Architecture will provide a basic understanding of the nature of the profession of Landscape Architecture. Knowledge of Landscape Architecture history and theory provides a useful addition to a major in any of the University disciplines.

The Minor in Landscape Architecture is designed to:

- Provide a general background in the discipline with regard to landscape architecture research, development and design for students, whose primary professional practice will be in another discipline.
- Clarify the role of the profession of Landscape Architecture.
- Define how the profession of Landscape Architecture and all related professional disciplines contribute to the successful practice of design.

REQUIREMENTS

- Completion of 15 credit hours are required.
- A letter grade of 'C' or better will be required for credit in all courses in the minor program.

REQUIRED COURSES

None

ELECTIVE COURSES - 15 credit hours

To be determined in consultation with the minor coordinator

The courses listed below are some of the courses that can contribute to achievement of the Landscape Architecture Minor. Courses offered each semester are subject to change. A listing of courses for each semester will be sent to students registered for the minor prior to open enrollment.

Fall Semester LAR courses

(note: some courses may not be offered every fall)

LAR 444 Landscape History (3 cr)

LAR 520 Landscape and Culture (3 cr)

LAR 528 LA Construction Materials and Methods (3 cr)

LAR 534 Landscape Architecture Theory and Criticism (3 cr)

LAR 582 008 Survey of Natural Hazards and Disasters (3 cr)

LAR 582 009 GIS for Designers (3 cr)

LAR 514 LAR Digital Media II (3 cr)

LAR 501 LAR Intro Design Studio (6 cr)

Spring Semester LAR courses

(note: some courses may not be offered every spring)

LAR 540 Landscape Architecture Research and Strategic Thinking (3 cr)

LAR 543 Landscape Architecture Performance Metrics (3 cr)

LAR 545 Landscape Architecture and City Planning (3 cr)

LAR 546 The Landscape Imperative (3cr)

LAR 550 Landscape Architecture Professional Practice (3 cr)

LAR 582 001 History of Landscape Architecture (3 cr)

LAR 582 002 Disaster Resilient Policy, Engineering and Design

LAR 582 003 Environmental and Social Equity in Design (3 cr)

LAR 582 005 Natural Hazards, Disasters and Climate Change Adaptation Lecture Series (1 cr)

LAR 502 Site Planning and Design Studio (6 cr), prerequisite is LAR 501, exception is Architecture Students

Summer Session LAR Courses

(note: some courses may not be offered every summer)

LAR 523 Landscape Architecture Plant ID (2 cr)

LAR 524 Landscape Architecture Planting Design (2 cr)

LAR 582 006 Environment and Behavior for Designers (3 cr) *online course*

For students in the School of Architecture only, select one (1) course below in addition to three courses (9 credit hours) from the previously listed courses:

LAR 502 Site Planning and Design Studio (6 cr)

LAR 506 Landscape Architecture Design + Build Studio (6 cr)

LAR 507 Landscape Architecture Advanced Topics in Design Studios (6 cr)

ADMISSIONS

Entrance into the minor is by application, grade review and permission of the Department Chair. A GPA of 2.75 is required. Contact the Chair of the Department of Landscape Architecture (listed below) or the College of **Scheduling Officer, Pam Christie-Tabron (200 Brooks Hall, 919.515.8308)** for the application.

CERTIFICATION

The minor must be completed no later than the semester in which the student expects to graduate from his or her degree program. Paperwork for certification can be found in 223 Brooks Hall and should be completed during the registration period of the student's final semester at NC State.

CONTACT PERSON

Meg Calkins, **FASLA, Department Head**

Department of Landscape Architecture

215D Brooks Hall

919.515.8342

mecalkin@ncsu.edu

SIS Code:12LND

April 8, 2019

1. Statement of Justification

The Landscape Architecture Minor was revised for the following reasons:

- Several LAR course numbers have changed.
- The list of possible courses for the minor has been expanded to show the wide variety of LAR offerings that Minors can take. These courses are provided as a “sample” because LAR course offerings vary each year and new seminars are offered under the “582” listing.
- Text under “Admissions” was simplified. The old way it was written made the minor sound exclusive to students in the College of Design.

2. Statement of Academic Minor Program Objectives

The Minor in Landscape Architecture is designed to:

- Provide a general background in the discipline with regard to landscape architecture research, development and design for students, whose primary professional practice will be in another discipline.
- Clarify the role of the profession of Landscape Architecture.
- Define how the profession of Landscape Architecture and all related professional disciplines contribute to the successful practice of design.

3. List of Courses constituting the Proposed Minor

REQUIRED COURSES

None

ELECTIVE COURSES - 15 credit hours

To be determined in consultation with the minor coordinator

Fall Semester LAR courses

(note: some may not be offered every fall)

LAR 444 Landscape History (3 cr)

LAR 520 Landscape and Culture (3 cr)

LAR 528 LA Construction Materials and Methods (3 cr)

LAR 534 Landscape Architecture Theory and Criticism (3 cr)

LAR 582 008 Survey of Natural Hazards and Disasters (3 cr)

LAR 582 009 GIS for Designers (3 cr)

LAR 514 LAR Digital Media II (3 cr)

LAR 501 LAR Intro Design Studio (6 cr)

Spring Semester LAR courses

(note: some may not be offered every spring)

LAR 540 Landscape Architecture Research and Strategic Thinking (3 cr)

LAR 543 Landscape Architecture Performance Metrics (3 cr)

LAR 545 Landscape Architecture and City Planning (3 cr)

LAR 550 Landscape Architecture Professional Practice (3 cr)

LAR 582 001 History of Landscape Architecture (3 cr)

LAR 582 002 Disaster Resilient Policy, Engineering and Design

LAR 582 003 Environmental and Social Equity in Design (3 cr)

LAR 582 005 Natural Hazards, Disasters and Climate Change Adaptation Lecture Series (1 cr)

LAR 502 Site Planning and Design Studio (6 cr), prerequisite is LAR 501, exception is Architecture Students

Summer Session LAR Courses

(note: some may not be offered every summer)

LAR 523 Landscape Architecture Plant ID (3 cr)

LAR 524 Landscape Architecture Planting Design (3 cr)

LAR 582 006 Environment and Behavior for Designers (3 cr) *online course*

For students in the School of Architecture only, select one (1) course below in addition to three courses (9 credit hours) from the above list of courses:

LAR 502 Site Planning and Design Studio

LAR 506 Landscape Architecture Design + Build Studio

LAR 507 Landscape Architecture Advanced Topics in Design Studio

4. Catalog Description of Proposed Minor

The Minor in Landscape Architecture will provide a basic understanding of the nature of the profession of Landscape Architecture. Knowledge of Landscape Architecture history and theory provides a useful addition to a major in any of the University disciplines.

5. Administration of the Minor (Contact information for Administrator of the Minor)

Meg Calkins, Landscape Architecture Department Head

6. Requirements for Admission and Completion of the Minor

Requirements for Admission to the Minor

Entrance into the minor is by application, grade review and permission of the Department Chair. A GPA of 2.75 is required. Contact the Chair of the Department of Landscape Architecture (listed below) or the College of Scheduling Officer, Pam Christie-Tabron (200 Brooks Hall, 919.515.8308) for the application.

Requirements for completion of the Minor

- Completion of 15 credit hours are required.
- A letter grade of 'C' or better will be required for credit in all courses in the minor program.

7. Statement on Other Departments Likely to be Affected and Summary of Consultations with those Departments

All LA Minor courses are offered by the Landscape Architecture Department. Other Departments should not be affected.



MEMO

Date: October 17, 2019
To: Bret Smith, Senior Interim Dean, University College
From: Dr. Tamah Morant, Associate Dean, Poole College of Management
Subject: Changes to the Business Analytics Honors Program

The Poole College of Management proposes several changes to the requirements for the Business Analytics Honors Program. These proposed updates are in part the result of curriculum changes in the Business and Accounting degrees that now require all students to take BUS 351, which was previously a course only taken by students in the honors program. Additionally, they reflect a growing focus on analytics within the college and an expansion of courses that include analytics content.

Current program

Admissions Requirements:

B+ or higher in BUS 340
B+ or higher in BUS/ST 350
3.25 or higher major GPA; 3.25 or higher overall GPA

Program Requirements:

BUS 351H	Predictive Analytics for Business
BUS 458H	Analytics: From Data to Decisions
BUS 459H*	Business Analytics Practicum

* Students can substitute this course for another practicum course with approval of Honors Program.

Proposed program

Admissions Requirements:

B+ or higher in BUS 340 and BUS/ST 350
B+ or higher in BUS 351
3.25 or higher major GPA; 3.25 or higher overall GPA

Program Requirements:

BUS 440H	Database Management
BUS 458H	Analytics: From Data to Decisions
BUS 459H*	Business Analytics Practicum

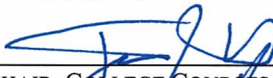
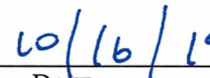


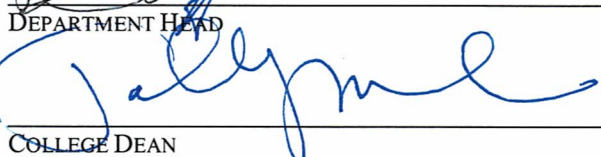

One course** from the following list:

- ACC 495 (pending permanent course number) – Analytics in Accounting and Finance
- BUS 428 - Financial Analytics
- BUS 429 - Financial Modeling
- BUS 449 – IT Capstone*
- BUS 469 - Digital Marketing Practicum*
- BUS 470 - Operations Modeling and Analysis
- BUS 476 - Decision Modeling and Analysis
- BUS 479 – Supply Chain Practicum*
- EC 451 – Econometrics II
- EC 490 – Research Seminar in Economics*
- EC 500/600/700 – graduate level Economics course (with approval of Honors Program)
- MIE 439 (pending permanent course number) – Human Resources Analytics*

**Course project must be approved by Honors Program for the course to count*

***Courses on this list may also count in the major, however participation in the Honors program does not guarantee access to these courses – students must meet any prerequisites and restrictions*

ENDORSED BY:

 _____ CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE	 _____ DATE
 _____ DEPARTMENT HEAD	 _____ DATE
 _____ COLLEGE DEAN	 _____ DATE

APPROVED BY:

_____ CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE	_____ DATE
_____ DEAN OF UNDERGRADUATE ACADEMIC PROGRAMS	_____ DATE



University College
Department of Music
music.arts.ncsu.edu

Campus Box 7311
2620 Cates Avenue, Suite 202
Raleigh, NC 27695
P: 919.515-1692

October 16, 2019

The Department of Music requests the creation of a new course prefix, MUT, to better categorize courses in the sub-discipline of Music Technology (CIP code 50.0913). These courses are distinctive from the core music curriculum, currently identified with the course prefix MUS, by their focus on the integrations and fusions of music and technology that normally manifest themselves in work that creates in or supports one or more areas of musical endeavor. As defined by the National Association of Schools of Music (NASM), such music-centered work includes, but is not limited to, "production, recording, manipulation, systems design, installation, software and hardware development, and the wide variety of audio fields such as concert and event, film, game, and audio design."

This change will impact two currently offered courses, MUS 270 & 370, and eight new courses to be proposed as a part of a request to establish a Bachelor of Science in Music Technology.

Respectfully submitted,


A handwritten signature in black ink, appearing to read "D. Monek", written over a horizontal line.

Daniel Monek
Professor & Department Head, Music


Academic Organization: 24MUS

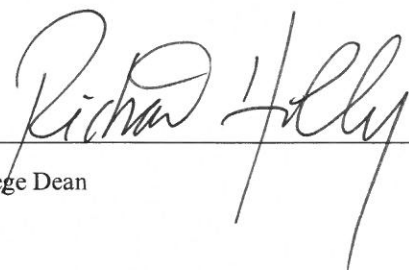
SIGNATURE PAGE FOR MUT Prefix Memo

RECOMMENDED BY:

 10/21/19
Head, Department/Program DATE

ENDORSED BY:

 10/21/19
Chair, College Courses & Curricula Committee DATE

 10-22-19
College Dean DATE

APPROVED BY:

CHAIR, University Courses & Curricula Committee DATE

Dean, Division of Academic and Student Affairs (DASA) DATE

APPROVED EFFECTIVE DATE _____