



University Courses & Curricula Committee 2018-2019

March 27, 2019
 Talley Student Union 5101
 12:45pm-2:45pm

Call to Order 12:45pm

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

Old Business

Returning Actions			
Presenter	Reviewers	Action	Type
Bruce	Despain, Muse, Orphanides	CS 418/(518) Intro to Regulatory Science in Agriculture	Revisions: SLOs, dual level, description. Returning from 1/9/2019
Despain	Bruce, Muse, Orphanides	COM 497 Advanced Topics in Media Studies	New Course Returning from 2/6/2019

New Business

Consent Agenda			
Action	Type	Notes	
ADN 319 Animation I	Minor	Revisions: Title, Scheduling	
ADN 371 Soft Construction II: Sculptural Geometry	Minor	Revisions: Title	
ADN 384 Painting I	Minor	Revisions: Title	
AFS/PS 409 Black Political Participation in America	Minor	Revisions: Dropping GEP, abbreviated title	
AFS/SOC 305 Racial and Ethnic Relations	Minor	Revisions: Abbreviated Title	
ARE 201 Introduction to Agricultural & Resource Economics	Minor	Revisions: Requisites, GEP info	
ARE 433 U.S. Agricultural Policy	Minor	Revisions: Requisites, scheduling	
BME 298 Biomedical Engineering Design and Manufacturing I	Minor	Revisions: Updating enrollment information	
BME 299 BME Design and Manufacturing I Lab	Minor	Revisions: Updating enrollment information	
BUS 426 International Financial Management	Minor	Revisions: Requisites, description	
CSC 316 Data Structures and Algorithms	Minor	Revisions: Requisites	
CSC 401 Data and Computer Communications Network	Minor	Revisions: Adding S/U grading option	
CSC 453 Introduction to Internet of Things (IoT) Systems	Minor	Revisions: Adding S/U grading option	
DAN 272 Dance Composition – Solo Forms	Minor	Revisions: Title, Fee, description	
ECE 436 Digital Control Systems	Minor	Revisions: Requisites	
ENG 201 Writing Literary Analysis	Drop	Course being Dropped	
ENG 233 The Literature of Agriculture	Drop	Course being Dropped	
FLF 414 Studies in French Prose	Drop	Course being Dropped	
FOR 220 Urban and Community Forestry	Drop	Course being Dropped	
HI 400/(500) Civilization of the Ancient Near East	Minor	Removing HUM GEP information	
HI 404/(504) Rome to 337 A. D.	Minor	Removing HUM GEP information	
HI 405/(505) History and Archaeology of the Roman Empire	Minor	Removing HUM GEP information	
HI 406/(506) From Roman Empire to Middle Ages	Minor	Removing HUM GEP information	
HI 409/(509) The High Middle Ages	Minor	Removing HUM GEP information	
HI 412/(512) The Sexes and Society in Early-Modern Europe	Minor	Removing HUM GEP information	
HI 414/(514) From Kings to Revolution: The History of Early-Modern France	Minor	Removing HUM GEP information	
HI 415/(515) The French Revolution	Minor	Removing HUM GEP information	
HI 418/(518) Fascist Italy and Nazi Germany	Minor	Removing HUM GEP information	
HI 419/(519) Modern European Imperialism	Minor	Removing HUM GEP information	
HI 421/(521) European Intellectual History: The Eighteenth Century	Minor	Removing HUM GEP information	
HI 423/(523) Women in European Enlightenment	Minor	Removing HUM GEP information	
HI 425/(525) Tudor and Stuart England	Minor	Removing HUM GEP information	
HI 443/(543) U. S. Constitutional History to 1883	Minor	Removing HUM GEP information	
HI 451/(551) The Vietnam War	Minor	Removing HUM GEP information	

HI 469/(569) Latin American Revolutions in the Twentieth Century	Minor	Removing HUM GEP information
HI 471/(571) Revolutionary China	Minor	Removing HUM GEP information
HI 473/(573) Japan's Empire in Asia, 1868-1945	Minor	Removing HUM GEP information
HON 391 Music and Social Life	Drop	Course being Dropped
TT/FTM 380 Management and Control of Textile and Apparel Systems	Minor	Revisions: Requisites
TT/FTM 480 Operations Management Decisions for Textiles	Minor	Revisions: Requisites
Extension Education Major (11EXSTEDAEY)	Drop	Discontinuing Major and its 2 subplans

Poole College of Management			
Presenter	Reviewers	Action	Type
Kuzenski	Hergeth, Merrill, Driscoll	ACC 498 Independent Study in Accounting	Revisions: Grading method to GRD
Kuzenski	Domingue, Hessling, Planchart	BUS 443 Web Development for Business Applications	Revisions: SLOs, eval methods, description, title
Kuzenski	Carlson Welch, Krause, Griffin Hillis	BUS 498 Independent Study in Business Management	Revisions: Grading method to GRD
Kuzenski	Seracino, Despain, Bruce	EC 201 Principles of Microeconomics	Revisions: SLOs, eval methods
Kuzenski	Roise, Orphanides, Reynolds	EC 205 Fundamentals of Economics	Revisions: SLOs, eval methods
Kuzenski	Muse, Rieder, Seracino	EC 498 Independent Study of Economics	Revisions: Grading method to GRD
Kuzenski	Roise, Driscoll, Domingue	MIE 498 Independent Study in MIE	Revisions: Grading method to GRD

College of Sciences			
Presenter	Reviewers	Action	Type
Muse	Despain, Rieder, Hessling	Statistics BS 17STBS	Revisions

College of Humanities and Social Sciences			
Presenter	Reviewers	Action	Type
Despain	Reynolds, Hergeth, Muse	AFS 442 Issues in the African Diaspora	Revisions: SLOs, abbreviated title, eval methods
Despain	Bruce, Roise, Kuzenski	COM 447 Mobile Communication	Revisions: SLOs, abbreviated title, eval methods
Despain	Orphanides, Hergeth, Krause	HI 264 Modern Asia 1800 to Present	Revisions: SLOs, abbreviated title, eval methods
Despain	Planchart, Griffin Hillis, Merrill	HI 270 Modern Middle East	Revisions: SLOs, abbreviated title, eval methods
Driscoll	Reynolds, Rieder, Bruce	HI 335 The World at War	Revisions: SLOs, abbreviated title, eval methods
Driscoll	Hergeth, Domingue, Roise	HI 350 American Military History	Revisions: SLOs, abbreviated title, eval methods
Driscoll	Carlson Welch, Merrill, Krause	HI 366 Native American History	Revisions: SLOs, abbreviated title, eval methods

College of Natural Resources			
Presenter	Reviewers	Action	Type
Roise	Domingue, Driscoll, Hergeth	SMT 330 Project Management for Sustainability	New Course

College of Education			
Presenter	Reviewers	Action	Type
Hessling	Seracino, Kuzenski, Driscoll	Learning Design and Technology 13EDGENBS-13EDGENLDT	New Concentration

Notifications	
Changing ALS prefix CIP Code to Agriculture, General (01.0000)	Memo attached in packet

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.



Division of Academic and Student Affairs
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University Courses and Curricula Committee

March 6, 2019
Talley Student Union 5101
Call to Order: 12:45 pm

Members Present: Chair Marta Klesath, Chair Elect Rudi Seracino, Kanton Reynolds, Past Chair Helmut Hergeth, Melissa Merrill, Scott Despain, Catherine Driscoll, Kathleen Rieder, Peter Hessling, Wendy Krause, Peggy Domingue, Andreas Orphanides, Antonio Planchart, Jackie Bruce, Annie Carlson Welch, John Kuzenski, Spencer Muse, Melissa Merrill, Kanton Reynold, Coleman Simpson, Joseph Roise

Members Absent: Berkley Griffin Hillis,

Guests: Betty Gardner, Katie Marron, Kathryn Stevenson, Gail Jones, Amanda Beller, Carolina Gill, Pamela Jennings, Nikki Glenos, Tsai Lu Liu

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

WELCOME AND INTRODUCTIONS

- **Remarks from Chair** - Welcomed the committee members and introduced the guests and proxies.
- **Remarks from Undergraduate Research-** *Presentation on GPS and Mini Grants from Nikki Glenos*, Li Marcus will send documentation information after the meeting.
- **Approval of the Minutes from February 20th 2019** – Approved Unanimously
 - Discussion: Member Helmut Hergeth moved to approve.

NEW BUSINESS

- **Consent Agenda** (ADN111 ...CSSC290,D231...ID...EthicsReqList,PSSRename,PSSDiscontinue) -Approved Unanimously
Discussion: Member Kathleen Rieder moved to approve.

- **GN 453 Personal Genomics - Approved Pending**
Discussion: Member Spencer Muse presented the new course action and introduced guest Betty Gardner. Member asked why the course is limited to 12, the guest responded that the low number of students are to provide enough personal attention for each student. Member asked if the department is aware that they may have many Animal Science majors in the course, guest replied that she will make the instructor aware. Member brought attention to the absences policy and asked for clarification of what the first “available day” means, guest responded that this would be due the first day the student returns. Member brought attention to the DRO statement, showing the incorrect building, motion to amend the motion from approved to approved pending, approved.

- **EMS 350 Teaching Environmental Education- Approved Pending**
Discussion: Member Peter Hessling presented the new course action. Member brought attention to the course description in the syllabus and CIM not matching and moved to amend to approved pending the descriptions matching. In the syllabus, a portion is referred to as participation and discussion grading, member also commented that there should be additional information clarifying. Member brought attention to the DRO statement referring to the “Disability Service” when it should be “Disability Resources”. Member brought attention to the student learning outcomes, showing one is repeated.
Member asked if the student learning outcomes are outcomes or a list of activities, guest Gail Jones asked for clarification. Member indicated outcomes are skills, over activities, guest clarified these are skills. Member asked if the outcomes are measurable, members looked at a few and believe they are measurable.
Member brought attention to the syllabus in week 14 refereeing to the “assignments for Graduate Students”, guest indicated this will be removed.
Member asked if the meeting time for observations are included in the contact hours, guest responded no, these are scheduled individually and no instruction is provided during the observations.
Member asked how the participation grade is assessed asking how full participation should be earned. Members discussed how much participation is required, asking if a student doesn’t attend a course, how many points will they lose, member brought attention to each day having a score.
Members discussed if transportation statements and fees are required to be included in the description, the syllabus regulation indicates it is not required.

➤ **ED 100 Intro to Education- Approved Pending with Friendly Suggestion**

Discussion: Member Peter Hessling presented the course action as approved pending the correction of the scheduling for the component type. Guest Amanda Beller explained they will be working with the recitation indication and they will

remove the language beginning with 'as such'through "I reserve the right..."in the classroom conduct section.

Amanda also indicated she will change the "develop professional attitudes" student learning outcomes.

Member brought attention to the late assignment section asking if a student has an excused absence, the late assignments would receive a 30% deduction and suggested including "students with excused absences can make up work". Member also brought attention to the syllabus modification section adding "with adequate time informing students" another member suggested removing the information that the syllabus is a contract.

Member indicated the PRRs at the bottom of syllabus regulation.

Member brought attention to a statement that "students who plan to graduate with a teacher education major..." and suggested adding it to the catalog description in CIM and suggested adding a statement that students outside of the major can take the course for pass fail.

Members discussed that it's not required to put the EC 100 C minimum grade in catalog description but should be in course description in the syllabus.

Member asked if 3 rooms will be reserved for the term, guest indicated 4 rooms will be reserved for breakout sessions.

Guest indicated the class time is not during a busy scheduling time and that the time provides ability for public school employees to come and speak with students.

➤ **ID 440 Experience Design for ID- Approved Pending with Friendly Suggestion**

Discussion: Member Kathleen Rieder presented the new course action. Member asked what 15% is used for participation, guest Carolina Gill indicated this is just that the students would be in the classroom, actively working on their projects and indicated this may be linked with participation. Members and XONV members discussed that participation, regardless of percentage would need to indicate how students will earn 100% participation points. Member motion to amend the motion from approved to approved pending the additional information indicating how to earn the full 15% participation.

Member suggested expanding the abbreviated title, using more characters.

Member indicated the student learning outcomes in the syllabus and the student learning outcomes in CIM are not matching.

Members were informed that the student learning outcomes in the syllabus are the most UpToDate versions and would be moved to the CIM student learning outcomes sections.

Members discussed "demonstrate awareness" to "apply the tools", members discussed how "demonstrate awareness" is an appropriate term that could be used.

➤ **PRT 385 Environmental Education in Practice- Withdrawn**

Discussion: Member Proxy member Gary Blank withdrew the new course action based on the need to make adjustments.

➤ **AS 121 Heritage and Values of the United States Air Force I- Withdrawn**

Discussion: Member Peggy Domingue presented the course action. Member brought attention to page 3 class participation, complimenting the description of how students are being graded on participation.

Member brought attention to the contact/credit hours not calculating correctly. Guest Katie Marron explained the "lab" component is their drill time for ROTC. Members and Guest clarified that cadets are required to take the "lab", guest explained for air force ROTC, they have to consider drill time a lab. Member asked if there was a way to add a credit hour for the leadership lab.

Guest explained that the 300 and 400 level ROTC students run, organize, plan, and execute the leadership labs for the lower level ROTC members who are being tested on how to properly wear the uniform and correct drills.

Members discussed how there used to be a possibility for a lab to have zero contact hours.

Member asked if it's our issue that we aren't able to adequately provide a way to schedule the leadership labs.

Member indicated ROTC has it's own requirements. Member asked if there were two of these courses, a lecture section and a lab section, members came to the conclusion that . Member asked why the course can't be 2 credit hours, guest responded that the curricula are set up with this course being 1 credit hour, they get their curricula passed down from ROTC headquarters.

Member suggested making this a lecture course a making a separate course as a lab.

Member suggested just letting this go, and referring to these minutes to explain why the course was approved without correctly calculating contact/credit hours.

Chair explained that as a committee they can approve it as is, with a note that the university doesn't have a component type.

XONV member Lindsey Mihalov from scheduling indicated they would not put a lab scheduled like a seminar, but that they could schedule it, but that it won't automatically add it to their schedule. Members discussed that the students can (and do have the ability to) block of times in their schedule.

Members and guest discussed that a 2 contact hour lab can be calculated to 1 credit hour lab.

Chair indicated this discussion may affect all of the AS courses and asked if the guest would like to consider

withdrawing the courses to be brought back at the next meeting. Member brought up the point that a repeatable lab course may not be appropriate for our committee to review because they have their own requirements.

Member made the friendly suggestion to arrange the wording from "Disabled students" to "Students with Disabilities".

AS 122 Heritage and Values of the United States Air Force II-

AS 221 Team and Leadership Fundamentals I-

AS 222 Team and Leadership Fundamentals II-

AS 321 Leading People and Effective Communication I-

AS 322 Leading People and Effective Communication II-

AS 421 National Security Affairs/Preparation for Active Duty I-

AS 422 National Security Affairs/Preparation for Active Duty II-

Member withdrew all AS courses from the agenda.

➤ **EC 202 Principles of Macroeconomics- Tabled with Friendly Suggestion**

Discussion: Member John Kuzenski presented the course action. Member asked if Textiles can also add EC 202 as a required course in the textiles curricula for which it is a required course as a friendly suggestion.

Member brought attention to the catalog and course description in CIM

Member brought attention to the DRO statement needing correction.

Motion to amend the motion from approved to approved pending these two. Member brought attention to the attendance and tardiness section in the syllabus that "Dr. Craig reserves the right to favorably consider students who attend class regularly" to more clarified terms.

Member brought attention to the labs indicated in the syllabus and brought attention to the contact hours being 3 lecture hours and 0 lab hours. Members

Member indicated the grading scale and it may be inappropriate for "Dr. Craig reserves the right to use +/- grades..." members discussed if that is fair or equitable to the students.

Member motioned to table the action based on the contact hours needing clarification as well as the attendance and grading policies, removing the language the infers bias, the correction of the DRO statement and inclusion of the PRRs.

Members recommended the instructor attend future meetings to help clarify.

Meeting adjourned at 2:26 pm

Respectfully submitted by Lexi Hergeth

NC STATE UNIVERSITY

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Memorandum

To: Dr. Michael D. Mullen, Vice Chancellor and Dean of the Division of Academic and Student Affairs
From: Travis Park, Department of Agricultural and Human Sciences, Undergraduate Teaching Coordinator
Date: 05 February 2019
RE: Discontinuing 11EXTEDBS

Justification: The Department of Agricultural and Human Sciences requests the discontinuation of the Extension Education major (11EXTEDBS) and its two subplans (11EXTEDAEX and 11EXTEDAHEY). This major has experienced perennially low enrollments. At present, only one CALS faculty remains to deliver the courses in the major. Going forward, it is our assessment that prospective extension agents across North Carolina are better served by majoring in one of the other CALS content areas (i.e. horticulture, animal science, etc.) and minoring in Extension Education, which currently exists.

Impact on the Classification: The discontinuation will mean the discontinuation of the CIP Code (01.0801)

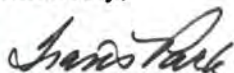
Impact on Other Programs: Other programs will not be affected by this change.

Impact on Future Students: Effective immediately, the Department requests the University cease admitting students into the Extension Education major as freshmen or transfers. We also ask that it be removed immediately as an option for CODA.

Impact on Current Students: Currently, 12 students are enrolled in the major and 2 additional students have been admitted to start August 2019. Six of students will graduate in May or August 2019. Five other students should graduate in May 2020, with the remaining one current undergraduate to graduate in 2021. With the on-going Extension Education Minor, we will continue to offer the necessary courses that will enable an on-time graduation for these remaining students.

Proposed Effective Date: January 1, 2020 (or earlier if possible)

Sincerely,



Travis Park
Associate Professor

**UNIVERSITY OF NORTH CAROLINA
REQUEST TO DISCONTINUE
A DEGREE PROGRAM, SITE OR DELIVERY MODE**

Date: February 5, 2019

Constituent Institution: North Carolina State University

Is the program a joint degree program? Yes No
Joint Partner campus _____

Title of Authorized Program: Extension Education (BS) Degree Abbreviation: 11EXTEDBS

CIP Code (6-digit): 01.0801 Level: B M I D

CIP Code Title: 11EXTEDBS

If the degree program has associated UNC Teacher Licensure Specialty Area Codes that, upon this discontinuation, should be attributed to a different degree program, then complete the following:

UNC Teacher Licensure Specialty Area Code (one per line; add as needed)	Degree Program to Receive Specialty Area Code		
	Title	Degree awarded	6-Digit CIP
n/a			

Term of Proposed Discontinuation (when new students will no longer be admitted):

term Spring year 2020

1. What type of program discontinuation is being requested? (if b/c/d, one or more can be selected)
 - a) **Discontinue - Permanent.** (While course offerings already shared across degree programs may continue, the program components will not become a significant or distinct component of another program. Degree program is discontinued in full in Academic Program Inventory (API), including any approved off-campus sites and alternate means of delivery; requires action of Board of Governors)
 - b) **Discontinue - Delivery.** Eliminate one or more delivery types and keep the program active.
 - On-campus delivery of program

- Online delivery of program
 - Site-based delivery of program
 - Instructor present (off-campus delivery)
 - Instructor not present (site-based distance education)
- c) **Discontinue - Consolidate.** Program components will become a significant or distinct component in another degree program (e.g. concentration/track).
- Existing degree program (BOG approved)
 - Program title, degree, CIP _____
 - New degree program (Request to Establish and BOG approval generally required)
 - Proposed program title, degree, CIP _____

If (b) is selected and sites are to be discontinued, please list them (add lines as needed).

Site #1

(address, city, county, state)

(date of site authorization by GA)

Site #2

(address, city, county, state)

(date of site authorization by GA)

Site #3

(address, city, county, state)

(date of site authorization by GA)

2. Explain why the program, site, or delivery mode is being discontinued.
- a. If the program, site or delivery mode addresses high priority needs, how will those needs be addressed by other programs?
Program does not address a high priority need.
 - b. Describe how affected parties (faculty, staff, students) will be informed of the impending closure and, where applicable, of any additional charges/expenses to students.
Faculty have met and discussed the impending closure of the 11EXTEDBS program. Students will be notified by both email and individual meetings with their faculty advisor.
 - c. Describe steps to be taken to allow students enrolled in the program, site or delivery mode to complete their courses of study.
All students currently enrolled in 11EXTEDBS will be allowed to continue and complete their courses of study. All courses in the major will continue to be taught until the final student

graduates from the program. Most of the courses in the 11EXTEDBS curriculum will continue to be taught as part of the Extension Education Minor.

3. Discuss the reassignment of any faculty, staff and EHRA non-faculty, including number of each type of personnel to be reassigned.

No faculty, staff, or EHRA non-faculty have been or will be reassigned.

4. Discuss the discontinuation of the employment of any faculty, staff and EHRA non-faculty, including number of each type of personnel to be discontinued.

No faculty, staff, or EHRA non-faculty have had or will have their employment discontinued.

5. Discuss reallocation or reduction of costs resulting from each discontinuation(s), including specific amounts related to each discontinuation.

Recruitment and advising efforts from 11EXTEDBS will be reallocated to the Extension Education Minor and delivery of graduate courses in the master's degree in Agricultural and Extension Education. The current .65 FTE of academic programs related to the 11EXTEDBS will be reallocated to the Extension Education Minor and graduate courses in AEE.

6. Name, title, telephone, and e-mail of contact person for this notification of discontinuation:

Travis Park, Associate Professor and Undergraduate and Transfer Coordinator, Agricultural and Human Sciences, 919.515.9441, tdpark@ncsu.edu

This request to discontinue a degree program, delivery mode, or site has been reviewed and approved by the appropriate institutional committees and authorities.

Signature of Chief Academic Officer: _____

Signature of Chief Academic Officer (Joint Campus partner) _____

Routing for On-Campus Approval of Degree Program Actions

Type of Action: Enter "X" for Action Type(s) and list Title and Prefix(es) as indicated

- | | |
|--|--|
| <input type="checkbox"/> New Degree Program | Proposed Program Title _____ |
| <input type="checkbox"/> New Certificate Program | Proposed Certificate Program Title _____ |
| <input type="checkbox"/> New Minor Program | Proposed Minor Program Title _____ |
| <input type="checkbox"/> Change in Degree Program Title | Current Degree Program Title <u>Extension Education (BS)</u> |
| <input type="checkbox"/> Change in Certificate Program Title | Current Certificate Program Title _____ |
| <input type="checkbox"/> Change in Minor Program Title | Current Minor Program Title _____ |
| <input type="checkbox"/> Change in Course Prefix | Current Course Prefix _____ Proposed Course Prefix _____ |
| <input checked="" type="checkbox"/> Program Discontinuation | |

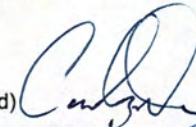
Responsible College(s) <u>CALS</u>	Responsible Department(s) <u>Agricultural & Human Sciences</u>
Program Contact Name <u>Travis Park</u>	Contact email <u>tdpark@ncsu.edu</u>
Proposed SIS Curriculum and CIP Code <u>11EXTEDBS/01.0801</u>	Proposed Effective Date <u>07.01.2019</u>


Routing of Action: Indicate by date when the following occurs.

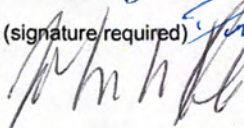
Completed Request to Plan and 1-page Concept Paper submitted to Council of Deans

_____ Council of Dean's Meeting - Approval to Plan granted

Completed Request to Plan:

02.13.19 Department Head *endorses* (signature required) 

15-FEB-19 College Curriculum Committee *recommends* (signature required) 

2-14-19 College Dean *endorses* (signature required) 

Request moves to Undergraduate or Graduate Office for routing:

- _____ Recommended by Vice Provost, DELTA (if DE degree) (signature required)
- _____ Substantive Change Review Committee (SCRT) *reviews*
- _____ If SACS notification is required, SCRT prepares letter draft for Chancellor to send to SACS
- _____ University Courses and Curricula Committee or Administrative Board of the Graduate School *recommends* (signature required)
- _____ Dean, (DASA or Graduate School) *approves* (signature required)
- _____ Associate Dean's Council or Graduate Operations Council *informed*

Request moves to Executive Vice Chancellor and Provost's Office for routing:

- _____ Vice Provosts *informed*
- _____ Deans' Council *recommends* (signature required)
- _____ Executive Vice Chancellor and Provost *approves* (signature required)
- _____ Recommended by Chancellor's Executive Officers (EOM)
- _____ University Council *informed*
- _____ Presented to Board of Trustees subcommittees (Academic & Personnel and Finance & Planning)
- _____ Chancellor *approves* (signature required)
- _____ SCRT Liaison prepares SACS letter for substantive change as applicable (approval or notification)
- _____ Request submitted to UNC-GA by Provost's Office via PREP or MOA or MOU as appropriate

Notes:

NC STATE UNIVERSITY

TO: Office of the Dean for Academic and Student Affairs
FROM: Spencer Muse, Director of 17STBS
RE: Updates to the 17STBS curriculum
DATE: 21 February 2019

Proposed effective date: July 2019

Proposed changes and justification

Two copies of the Format A and B document are required. Those with filenames ending in "Clean" have only the new proposed requirements. Those without "Clean" include colored highlights to indicate changes as follows:

- Yellow: new text added or edited
- Turquoise: old text deleted

Please note that the Format A and B documents here reflect changes relative to a Fall 2018 action that was approved to meet the mandated 120-credit hour policy. The Fall 2018 curriculum has not, and will not, be assigned to any students, and it is not reflected in the current active (online) 17STBS curriculum.

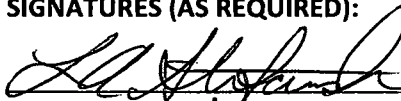
The following changes are proposed

- 1. Replace ST 305 (4 credits) with a requirement for *both* ST 311 and ST 312.** The overwhelming majority of Freshman ST majors now enter NCSU with AP Statistics, which provides credit for ST 311. This course currently counts only as Free Elective for them, and they see a great deal of repetition when they take ST 305. Most of our current internal (CODA) transfers into ST have already taken both ST 311 and 312, and we allow that combination to satisfy the ST 305 requirement (311+312 covers a bit more material than 305 alone). These CODA students have no trouble as a group with subsequent courses, so we do not expect any problem moving all students to the 311+312 requirement. We also note that since most incoming ST students have AP credit for ST 311, this change in practice will result in a decrease in the number of required course credits for the majority of our majors.
- 2. Add a new 3-credit Computational Statistics Elective requirement.** This new requirement reflects the importance of statistical computing and data science knowledge in the current environment. Students will select from an approved list of courses. Our initial list is:
 - ST 440: Applied Bayesian Analysis
 - ST 442: Introduction to Data Science
 - ST 446: Intermediate SAS Programming with ApplicationsNew courses to be added to this list are already planned to be introduced in the upcoming academic year.
- 3. Reduce Natural Sciences requirement from 15 credits to 11 credits.** This change makes room for the two changes described in (1) and (2), but keeps our Natural Science requirement well above the minimum requirement of 7.

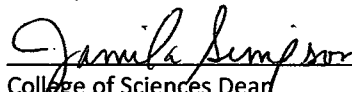
4. **Change linear algebra and matrices requirement from MA 405 to MA 305 or MA 405.** For most students the purpose of this requirement is to satisfy the prerequisites of the required course ST 430, which allows MA 305. We add a footnote encouraging graduate school-bound students to take the more advanced MA 405.
5. **Reduce the Advised Elective requirement from 15 credits to 12.** To increase the impact of these courses students will now fill out a “contract” for this collection of courses via conferral with their advisor and program director, ensuring an individualized set of thematically linked coursework. Three credits are moved to free elective, to maintain flexibility for students to explore some subjects of interest outside the contract theme area.
6. **Convert the COS Orientation requirement to “Verify” status.** The effect of this change is to simplify the degree audits for our internal transfer (CODA) students. Many of these students have taken the 1-credit E 115 orientation course and have no real need for another. However, COS 100 is a 2-credit course and also counts for two Interdisciplinary Perspectives GEP credits. Thus, replacing the COS 100 requirement with E 115 under the current requirements increases the risk of students not reaching their 120 credit minimum or taking the required five IDP GEP credits. The proposed change will make the requirements for these students much more transparent and less error-prone.
7. **Increase Free Elective requirement from 5 to 9.** Maintains some of the flexibility our previous requirement of 15 credits of Advised Elective (now 12) provided.
8. **A variety of updates are proposed to the timing within the 8-semester plan**
9. **All program footnotes have been updated to better clarify degree requirements and expectations.**

Current students will experience no negative impacts since all courses for their degree plans will still be taught on their regular schedules. They will all be offered the opportunity to switch to the new curriculum requirements if they wish. We anticipate that many of our current students will make this change.

SIGNATURES (AS REQUIRED):

 2-21-19
 Head, Dept of Statistics Date

 2/21/19
 Chair, College Curriculum Committee Date

 3/5/19
 College of Sciences Dean Date

 Chair, University Courses & Curricula Committee Date

PROPOSED EFFECTIVE DATE: Summer 2019

 Dean, Academic and Student Affairs Date

APPROVED EFFECTIVE DATE: _____

FORMAT A
(SEMESTER-BY-SEMESTER CURRICULUM DISPLAY)

Indicate display status: Current: Proposed: X Proposed Effective Semester: Fall 2019

Degree/Plan Title: Statistics (BS)

Concentration/Subplan Title:

Plan SIS Code: 17STBS

Subplan SIS Code:

New Degree Audit required? (Y or N) Y

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	CREDITS	SPRING SEMESTER	CREDITS
COS 100 Perspectives on Learning (or E 115) ¹	2	COM 110 (or 112 or 211) Public Speaking	3
ENG 101 Academic Writing & Research ^H	4	ENG 101 Academic Writing & Research ^H	4
MA 141 Calculus I ²	4 (CP)	MA 241 Analytic Geo & Calculus II ²	4 (CP)
ST 311 Introduction to Statistics ^{2,3}	3	Science Elective ³	4
ST 114 Stat Programming (or CSC 111 112 or 116) ²	3 (CP)	ST 305 Statistical Methods	4 (CP)
Health & Exercise Studies Elective ^E	1	ST 312 Introduction to Statistics II ^{2,4}	3 (CP)
GEP Requirement ^{C,D}	3	ST 307 Intro Stat Programming- SAS ²	1 (CP)
	Total: 16		Total: 15
SOPHOMORE YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
MA 242 Calculus III ²	4 (CP)	ST 308 Intro Stat Programming- R ²	1
MA 225 Foundations of Advanced Math ²	3 (CP)	GEP Requirement ^{C,D}	3
ST 445 Intro Stat Comp & Data Mgmt ²	3	ST 431 Intro to Experimental Design ²	3
Science Elective	4	GEP Elective ^{C,D,F,G,I,J}	3
Health & Exercise Studies Elective ^E	1	MA 305 or 405 Intro to Linear Alg & Matrices ^{2,5}	3 (CP)
GEP Elective ^{C,D,F,G,I,J}	3	Advised Elective ^{2,6}	3
		Free Elective ^{7,K}	3
		Health & Exercise Studies Requirement ^E	1
	Total: 15		Total: 14
	14		16
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ST 421 Intro to Mathematical Stat I ²	3 (CP)	ST 422 Intro to Mathematical Stat II ²	3 (CP)
ST 430 Intro to Regression Analysis ²	3 (CP)	ST 431 Intro to Experimental Design ⁴	3
GEP Elective ^{C,D,F,G,I,J}	3	GEP Elective ^{C,D,F,G,I,J}	3
Advised Elective ^{2,6}	3	Natural Sciences Elective ⁸	4
Science Elective	4	Advised Elective ^{2,4}	3
Free Elective ^{7,K}	3	Computational Statistics Elective ^{2,9}	3
		Statistics Elective ^{2,10}	3
	Total: 16		Total: 15
	15		16
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ENG 331 (or 332 or 333) Comm for Engr & Tech	3	ST 432 Intro to Survey Sampling ²	3
GEP Elective ^{C,D,F,G,I,J}	3	Statistics Elective ^{2,9}	3
Natural Sciences Elective ⁸	3	Advised Elective ^{2,9}	3
Advised Elective ^{2,6}	3	Free Elective ^{7,K}	2
Statistics Elective ^{2,10}	3	GEP Elective ^{C,D,F,G,I,J}	3
Free Elective ^{7,K}	3	Natural Sciences Elective ⁸	4
	Total: 15		Total: 13
	15		16
Minimum Credit Hours Required for Graduation : 120 ¹¹			

Major/Program Footnotes:

1. E 115 satisfies the orientation requirement, but is only a 1-credit course and does not provide GEP credit for Interdisciplinary Perspectives. Students taking E 115 to fill this requirement will need to take 1 additional overall credit to reach the 120 credit minimum, and will need to make sure they take the required 5 total credits of Interdisciplinary Perspectives.
2. ~~The Advised Electives may include any course at the 300-level or higher (with the exception of 300-level ST courses or BUS-350) and are subject to the approval of the student's advisor. Note that many of these courses will have prerequisites or other restrictions. Students are encouraged to use Advised Elective credits to pursue a minor or second major.~~
2. At most one D level grade is permitted in Major Advised Electives, Statistics Electives, Computational Statistics Electives, or required MA, ST, or CSC courses. C- or better required in ST ~~305~~ 307, 311, 312 and ST 421.
3. Students transferring into the Statistics major having already taken BUS 350, ST 350, ST 370, or ST 371 may substitute that course for ST 311.
4. Students transferring into the Statistics major having already taken ST 372 may substitute that course for ST 312.
5. Students considering graduate school are strongly encouraged to select ST 405.
6. A documented plan for the 12 credits of Advised Electives will be created in conjunction with the student's academic advisor. These courses may or may not be statistics courses. Students are encouraged to use Advised Elective credits to pursue a minor or second major. Note that many courses used as Advised Electives might have prerequisites or other restrictions.
7. A minimum of 120 credit hours are required for graduation.
8. A minimum of 11 credits from the GEP list of Natural Sciences are required. Selected courses must include (i) at least ~~3~~ two laboratory classes and (ii) at least three 3- or 4-credit courses.
9. Computational Statistics Electives should be selected from the list on your degree audit.
10. Statistics Electives must be ST-labeled courses at the 400 ~~or 500~~ level.
11. No more than 6 total credits from undergraduate research, independent study, credit by examination, or other similar types of courses may be used to meet program requirements (credit from AP exams or transfer credit is not included under this restriction). If you are unsure if a course falls into this category, please confer with your advisor.

***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>.

- A. **Mathematical Sciences** (6 credit hours – one course with MA or ST prefix)
Major requirements fulfill all of this requirement.
- B. **Natural Sciences** (7 credit hours – include one laboratory course or course with a lab)
Major requirements fulfill all of this requirement.
- C. **Humanities** (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Humanities course list
- D. **Social Sciences** (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Social Sciences course list.
- E. **Health & Exercise Studies.** (2 credit hours – must include at least one 100-level Fitness and Wellness HESF 100-level course)
Choose from the University approved GEP Health & Exercise Studies course list.
- F. **Additional Breadth** - (3 credit hours to be selected from the following University approved GEP course lists)
Humanities/Social Sciences/Visual and Performing Arts
- G. **Interdisciplinary Perspectives** (5 credit hours)
Choose from the University approved GEP Interdisciplinary Perspectives course list. COS 100 fulfills 2 of the 5 credits
- 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.
- 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.
- K. **Foreign Language proficiency** - Proficiency at the FL_102 level is required for graduation.


CURRICULUM REQUIREMENTS

Format B

Degree/Plan Title: Statistics (BS)	Plan SIS Code: 17STBS
Concentration/Subplan Title:	Subplan SIS Code:
Indicate requirements status: Current:	Proposed: X
Proposed Effective Semester: Fall 2019	
New Degree Audit required? (Y or N) Y	
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.	

MAJOR FIELD OF STUDY REQUIREMENTS:	Credit Hours	GEP category, if applicable
<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
Communication & Advanced Writing Communication COM 110 or 112 or 211	3	
Mathematics Calculus I MA 141 (CP) Calculus II MA 241 (CP) Calculus III MA 242 (CP) Found Advanced Math MA 225 (CP) Intro to Linear Alg & Matrices MA 405 (or MA 305) (CP)	4 4 4 3 3	Mathematical Sciences 3 Mathematical Sciences 3
Computer Science & Statistical Computing Statistical Programming ST 114 (CP) (or CSC 111 or 116) Intro Stat Programming- SAS ST 307 (CP) C-wall Intro Stat Programming- R ST 308 Statistical Computing- SAS ST 445 Computational Statistics Elective: choose from ST 440, 442, ST 446	3 1 1 3 3	
Statistics Statistical Methods ST 305 (CP) C-wall Intro Statistics ST 311 (CP) C-wall Intro Statistics II ST 312 (CP) C-wall Intro Math Stat I ST 421 (CP) C-wall Intro Math Stat II ST 422 Intro Regress Analysis ST 430 Intro Experimental Design ST 431 Intro Survey Sampling ST 432 Statistics Elective ST 4xx	4 3 3 3 3 3 3 3 3 6	
Concentration Courses/Groups/Electives: Natural Science Electives Natural Science Elective: Choose course(s) from the University Approved GEP course list for this category Advised Electives	15 11	Natural Sciences 7

Advised Elective *** 300- (12 individualized credits identified by conferring with advisor)	15 12	
Free Electives:	5 9	
Total credit hours under Major Field of Study: <i>Minimum 27 hours required in program area.</i>	90 91 hours	
COLLEGE REQUIREMENTS:		
Orientation Course (Co-requisite/verify): COS 100 (or E 115)	2 n/a	Interdisciplinary Perspectives-2
Other: Advanced Writing ENG 331 or 332 or 333	3	
Total credit hours under College Requirements:	5 3 Hours	

NCSU GENERAL EDUCATION PROGRAM REQUIREMENTS		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 may not be subset 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? (Choose applicable statement from 1-6 listed above)
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) 2
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) 2
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) 1
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) 1
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) 5
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>	5	(Choose statement 1, 2 or 3) 1 
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 not satisfied as part of the Major/College requirements.	24 26 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) 1
Global Knowledge co-requisite (GK)	n/a	(Choose statement 1 or 4) 1
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.

FORMAT A
(SEMESTER-BY-SEMESTER CURRICULUM DISPLAY)

Indicate display status: Current: Proposed: X Proposed Effective Semester: Fall 2019

Degree/Plan Title: Statistics (BS)

Concentration/Subplan Title:

Plan SIS Code: 17STBS

Subplan SIS Code:

New Degree Audit required? (Y or N) Y

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	CREDITS	SPRING SEMESTER	CREDITS
COS 100 Perspectives on Learning (or E 115) ¹	2	COM 110 (or 112 or 211) Public Speaking	3
MA 141 Calculus I ²	4 (CP)	ENG 101 Academic Writing & Research ^H	4
ST 311 Introduction to Statistics ^{2,3}	3	MA 241 Analytic Geo & Calculus II ²	4 (CP)
ST 114 Stat Programming (or CSC 111 or 116) ²	3 (CP)	ST 312 Introduction to Statistics II ^{2,4}	3 (CP)
Health & Exercise Studies Elective ^E	1	ST 307 Intro Stat Programming- SAS ²	1 (CP)
	<i>Total: 13</i>		<i>Total: 15</i>
SOPHOMORE YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
MA 242 Calculus III ²	4 (CP)	ST 308 Intro Stat Programming- R ²	1
MA 225 Foundations of Advanced Math ²	3 (CP)	ST 431 Intro to Experimental Design ²	3
ST 445 Intro Stat Comp & Data Mgmt ²	3	GEP Elective ^{C,D,F,G,I,J}	3
Health & Exercise Studies Elective ^E	1	MA 305 or 405 Intro to Linear Alg & Matrices ^{2,5}	3 (CP)
GEP Elective ^{C,D,F,G,I,J}	3	Advised Elective ^{2,6}	3
		Free Elective ^{7,K}	3
	<i>Total: 14</i>		<i>Total: 16</i>
JUNIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ST 421 Intro to Mathematical Stat I ²	3 (CP)	ST 422 Intro to Mathematical Stat II ²	3 (CP)
ST 430 Intro to Regression Analysis ²	3 (CP)	GEP Elective ^{C,D,F,G,I,J}	3
GEP Elective ^{C,D,F,G,I,J}	3	Natural Sciences Elective ⁸	4
Advised Elective ^{2,6}	3	Computational Statistics Elective ^{2,9}	3
Free Elective ^{7,K}	3	Statistics Elective ^{2,10}	3
	<i>Total: 15</i>		<i>Total: 16</i>
SENIOR YEAR			
FALL SEMESTER	CREDITS	SPRING SEMESTER	CREDITS
ENG 331 (or 332 or 333) Comm for Engr & Tech	3	ST 432 Intro to Survey Sampling ²	3
GEP Elective ^{C,D,F,G,I,J}	3	Advised Elective ^{2,6}	3
Natural Sciences Elective ⁸	3	Free Elective ^{7,K}	3
Advised Elective ^{2,6}	3	GEP Elective ^{C,D,F,G,I,J}	3
Statistics Elective ^{2,10}	3	Natural Sciences Elective ⁸	4
	<i>Total: 15</i>		<i>Total: 16</i>
Minimum Credit Hours Required for Graduation : 120¹¹			

Major/Program Footnotes:

1. E 115 satisfies the orientation requirement, but is only a 1-credit course and does not provide GEP credit for Interdisciplinary Perspectives. Students taking E 115 to fill this requirement will need to take 1 additional overall credit to reach the 120 credit minimum, and will need to make sure they take the required 5 total credits of Interdisciplinary Perspectives.
2. At most one D level grade is permitted in Major Advised Electives, Statistics Electives, or required MA, ST, or CSC courses. C- or better required in ST 305 307, 311, 312 and ST 421.
3. Students transferring into the Statistics major having already taken BUS 350, ST 350, ST 370, or ST 371 may substitute that course for ST 311.
4. Students transferring into the Statistics major having already taken ST 372 may substitute that course for ST 312.
5. Students considering graduate school are strongly encouraged to select ST 405.
6. A documented plan for the 12 credits of Advised Electives will be created in conjunction with the student's academic advisor. These courses may or may not be statistics courses. Students are encouraged to use Advised Elective credits to pursue a minor or second major. Note that many courses used as Advised Electives might have prerequisites or other restrictions.
7. A minimum of 120 credit hours are required for graduation.
8. A minimum of 11 credits from the GEP list of Natural Sciences are required. Selected courses must include (i) at least 3 two laboratory classes and (ii) at least three 3- or 4-credit courses.
9. Computational Statistics Electives should be selected from the list on your degree audit.
10. Statistics Electives must be ST-labeled courses at the 400 level.
11. No more than 6 total credits from undergraduate research, independent study, credit by examination, or other similar types of courses may be used to meet program requirements (credit from AP exams or transfer credit is not included under this restriction). If you are unsure if a course falls into this category, please confer with your advisor.

***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>.

- A. **Mathematical Sciences** (6 credit hours – one course with MA or ST prefix)
Major requirements fulfill all of this requirement.
- B. **Natural Sciences** (7 credit hours – include one laboratory course or course with a lab)
Major requirements fulfill all of this requirement.
- C. **Humanities** (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Humanities course list
- D. **Social Sciences** (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Social Sciences course list.
- E. **Health & Exercise Studies.** (2 credit hours – must include at least one 100-level Fitness and Wellness HESF 100-level course)
Choose from the University approved GEP Health & Exercise Studies course list.
- F. **Additional Breadth** - (3 credit hours to be selected from the following University approved GEP course lists)
Humanities/Social Sciences/Visual and Performing Arts
- G. **Interdisciplinary Perspectives** (5 credit hours)
Choose from the University approved GEP Interdisciplinary Perspectives course list. COS 100 fulfills 2 of the 5 credits
- 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.
- 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.
- K. **Foreign Language proficiency** – Proficiency at the FL_102 level is required for graduation.

CURRICULUM REQUIREMENTS**Format B**

<u>Degree/Plan Title:</u> Statistics (BS)	<u>Plan SIS Code:</u> 17STBS
<u>Concentration/Subplan Title:</u>	<u>Subplan SIS Code:</u>
<u>Indicate requirements status:</u> Current: Proposed: X	<u>Proposed Effective Semester:</u> Fall 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:		
Required Courses/Groups/ Electives:	Credit Hours	GEP category, if applicable
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
Communication & Advanced Writing <u>Communication</u> COM 110 or 112 or 211	3	
Mathematics <u>Calculus I</u> MA 141 (CP) <u>Calculus II</u> MA 241 (CP) <u>Calculus III</u> MA 242 (CP) <u>Found Advanced Math</u> MA 225 (CP) <u>Intro to Linear Alg & Matrices</u> MA 405 (or MA 305) (CP)	4 4 4 3 3	Mathematical Sciences 3 Mathematical Sciences 3
Computer Science & Statistical Computing <u>Statistical Programming</u> ST 114 (CP) (or CSC 111 or 116) <u>Intro Stat Programming- SAS</u> ST 307 (CP) C-wall <u>Intro Stat Programming- R</u> ST 308 <u>Statistical Computing- SAS</u> ST 445 <u>Computational Statistics</u> Elective 3 credit elective chosen from: ST 440, 442, ST 446	3 1 1 3 3	
Statistics <u>Intro Statistics</u> ST 311 (CP) C-wall <u>Intro Statistics II</u> ST 312 (CP) C-wall <u>Intro Math Stat I</u> ST 421 (CP) C-wall <u>Intro Math Stat II</u> ST 422 <u>Intro Regress Analysis</u> ST 430 <u>Intro Experimental Design</u> ST 431 <u>Intro Survey Sampling</u> ST 432 <u>Statistics Elective</u> ST 4xx (at least 6 credits of ST courses at the 400 level)	3 3 3 3 3 3 3 6	
Concentration Courses/Groups/Electives: Natural Science Electives <u>Natural Science Elective:</u> Choose course(s) from the University Approved GEP course list for this category	11	Natural Sciences 7

Advised Electives		
Advised Elective (12 individualized credits identified by conferring with advisor)	12	
Free Electives:	9	
Total credit hours under Major Field of Study: <i>Minimum 27 hours required in program area.</i>	91 hours	
COLLEGE REQUIREMENTS:		
Orientation Course(Co-requisite/verify): COS 100 (or E 115)	n/a	
Other: Advanced Writing ENG 331 or 332 or 333	3	
Total credit hours under College Requirements:	3 Hours	

NCSU GENERAL EDUCATION PROGRAM REQUIREMENTS		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 may not be subset 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? (Choose applicable statement from 1-6 listed above)
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	2	(Choose statement 1, 2 or 3)
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	2	(Choose statement 1, 2 or 3)
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	1	(Choose statement 1, 2 or 3)
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	1	(Choose statement 1, 2 or 3)
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	5	(Choose statement 5 or 6)
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>	5	1.	(Choose statement 1, 2 or 3)
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 not satisfied as part of the Major/College requirements.	26 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	1	(Choose statement 1 or 4)
Global Knowledge co-requisite (GK)	n/a	1	(Choose statement 1 or 4)
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.

Curriculum Action Memo

February 4, 2019

To Whom It May Concern:

The following curriculum action memo requests the creation of a new concentration within an existing degree and specifies the needs for and requirements of the new concentration.

Current title, SIS code, and CIP code of the parent degree:

Education (BS): General Studies (Non-Certified), 13EDGENBS

Proposed concentration title and suggested SIS code for the concentration:

Learning Design and Technology, 13EDGENBS-13EDGENLDT

Proposed implementation date of the concentration:

Fall Semester 2020

Justification statements for the new concentration:

Need for the concentration in terms of otherwise unmet needs and interests of NC State students and potential students: The current Education General Studies parent degree is available to students who lack interest in a certified track or future work in K-12 schools. However, this parent degree is somewhat generic and lacks focus on any specific area of competency, leaving graduates in a difficult position to find employment when they have not specialized in a certain area or field (e.g., math, science, social studies). The proposed concentration in Learning Design & Technology under this parent degree would allow interested students to specialize in a particular field of study with considerable employment growth potential. Further, there are only a few undergraduate programs in the United States that allow students to focus on Learning Design & Technology competencies (e.g., instructional design, educational media design and development). These programs are more typically taught at the graduate level (including a graduate-level master's and doctoral concentration in this area at NC State). Having an undergraduate program in this area would allow students to enter this growth area sooner rather than later, and transition into graduate programs for further specialization. In this action, we are proposing a 4+1 accelerated Bachelor's-Master's (ABM) program in which qualified students can earn both their Bachelor's and Master's degrees in this area. We believe the expanded coursework students would take at the undergraduate level would give them greater expertise and skills in design and educational media production than students who more quickly transition through a one- to two-year master's program only. Thus, these students would likely be highly desirable to potential employers seeking graduates with not only understanding of education theory and practice, but also the skills to develop high tech solutions to educational problems.

Relationship of the concentration to other programs offered by NCSU: This concentration is directly related to the online master's program in Learning Design & Technology, and the on-campus doctoral concentration in Learning Design & Technology offered within the Department of Teacher Education and Learning Sciences (TELS). As graduate-level courses already exist in these Learning Design & Technology master's and doctoral programs, there is an opportunity to leverage existing 500-level courses to serve upper-level undergraduates, and existing 700-level courses to serve +1 master's students. In collecting consultation statements from other

departments regarding courses we wish to include in the eight-semester display, Jason Swarts (Associate Head, Department of English) noted that the proposed concentration had similarities to their program in “Technical and Scientific Communication,” but that “I think we are drawing on a different audience of potential students.” Jason asked us to clarify in this action that his students graduate “to do work in technical communication, marketing communication, science communication, and user experience design,” while our students would graduate to work as instructional designers and entrepreneurs of educational technology products (e.g., apps, web sites and services).

Career opportunities for graduates with the concentration: This proposed concentration would address a growing field in Learning Design & Technology, and provide an inter- and cross-disciplinary area of study that draws students with multiple interests and backgrounds. Technology has become an integral part of instruction and learning that is heavily emphasized by federal agencies including the DoE and NSF, as well as the State of North Carolina. Leveraging this growing trend with local partnerships with schools and businesses would allow us to provide a high quality program that extends beyond the classroom and helps prepare students for a field that shows a high probability of exponential growth in jobs and career opportunities. Graduates of the program might work directly with school systems in developing educational materials, curriculum, simulations and games, or professional development, or they might work for companies that target different markets (K-12, higher education, adult learners) in designing and developing commercial educational materials and digital content. Graduates might also work as instructional designers for businesses with training departments. According to a recent O*Net career opportunity report for instructional designers and technologists (<https://www.onetonline.org/link/summary/25-9031.01>), this field has a faster than average growth rate at 10 to 14% annually through 2026, and North Carolina is projected to add 70 annual jobs in this area with an 11% growth rate. The noted median wages of \$63,750 are attractive within the education sector. Noteworthy in this report is the acknowledgement that most employees in this sector hold graduate degrees and extensive preparation and experience are required. In our conversations with area businesses, they reiterated this point that most of their employees in this sector likewise hold graduate degrees. For this reason, we are proposing a 4+1 ABM program that will allow qualified undergraduates to obtain both a Bachelor's and Master's degree, and students who did not maintain a 3.5 at the undergraduate level could still apply to the full master's program (i.e., a +2 program if you will). We believe this combined program with enhanced opportunities to gain relevant technology design and development skills will best prepare graduates for this field of study, more so than a person who received either the Bachelor's or the Master's alone. The strength is in the combined program with enhanced coursework and experiences.

Consultation statement to include the impact, if any, of the new concentration and course requirements on other departments/programs. Attach consultation correspondence as applicable. A request for consultation should be sent to the Associate Dean for the affected college.

Consultation statements gathered from:

<ul style="list-style-type: none"> ● Aaron Clark, Head of Department of STEM Education, home to the undergraduate program in Technology Education from which the proposed concentration would like to leverage one course (TDE 205) ● Approved ● Note, further elective options identified, GC 420 placed in display as senior-year elective 	<p>“This is OK, I will let them know. We also have GC 330 technical animation, GC 340 website development and concepts, GC 420 Visual Thinking, TDE 230 SciVis, TDE 261 Digital Media, that may be useful to you as well.” (Aaron Clark, Nov 2, 2018)</p>
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<ul style="list-style-type: none"> ● Mark Hovertsen, Dean of Design School, home to two design courses the proposed concentration would like to leverage within its undergrad curriculum/eight-semester display (D 100, 101) ● Approved 	<p>“This all sounds good conceptually. I'm forwarding this to Associate Dean Sharon Joines as it falls in her wheelhouse. Thanks for the heads up and coordination. I appreciate that collaborative spirit.” (Mark Hovertsen, Nov 2, 2018)</p> <p>“Thank you for the consultation. I will reach out to address course capacity and get back with you in the next few days.” (Sharon Joines, Nov 2, 2018)</p> <p>“I think this sounds good. I have checked our enrollment and don't think access will be a problem in the future.” (Sharon Joines, Nov 26, 2018)</p>
<ul style="list-style-type: none"> ● Richard Warr, Head of Department of Business Management, home to two marketing courses the proposed concentration would like to leverage within its undergrad curriculum/eight-semester display (BUS 360, 465) ● Denied ● Change to Eight-Semester Display: dropped these courses as proposed electives; added courses in computers and programming 	<p>“Kevin, I am copying in the interim Department head, Seb Heese and our Director of Curriculum - Jason DeRousie for their input. My thoughts: while 360 does sometimes have space for non-major students (for example - those doing a minor), it's unlikely that non-BSBA students would be able to enroll in BUS 465. I'll let Jason confirm.” (Richard Warr, Nov 2, 2018)</p> <p>“I am with Richard on this -- he has much more insight on this than myself, being new to this position. Let's wait for Jason's feedback. I also copy Jon Bohlmann -- he is our area coordinator for marketing and might want to chip in on this...” (Hans Heese, Nov 2, 2018)</p>
<ul style="list-style-type: none"> ● Laura Severin, Head of Department of English, home to two English/technical writing courses the proposed concentration would like to leverage within its undergrad curriculum/eight-semester display (ENG 214, 314) ● Denied ● Change to Eight-Semester Display: dropped ENG 214 as a free elective, and now recommending either ENG 331 Communication for Engineering and Technology or ENG 332 Communication for Business and Management as one of the English department-advertised options for the advanced writing elective (ENG 314 was turned down for this purpose) 	<p>“I would very much like to support your request, but I need the input of my Undergraduate Director and Associate Head, Jason Swarts, here. These are required courses in our most popular concentration in English, and I'm not sure we can take the enrollment pressure--though you aren't talking about that many students.” (Laura Severin, Nov 2, 2018)</p> <p>“Essentially, my worry is the same as Laura's. ENG 214 is an important gateway course for many of our LWR majors and it routinely fills with our own majors. For example, in Spring 2019, we are offering three regular sections of the course and one double sections. As of this moment they are all completely full. The same thing happened for Fall 2018. Similarly, ENG 314 is an important course in the LWR concentration and it routinely fills as well. As of this morning, ENG 314 is nearly full with only 2 seats remaining. I'm afraid those classes could not sustain additional enrollment demands at present. Regardless, I would like to hear how 214 and 314 fit into your curricular plan. Perhaps I could suggest different courses that might serve similar needs.” (Jason Swarts, Nov 3, 2018)</p>
<ul style="list-style-type: none"> ● Jennifer Capps, Director of Academic Programs, NC State Entrepreneurship, home to two courses the proposed concentration would like to leverage within its undergrad curriculum/eight-semester display (EI 201, 331) ● Approved 	<p>“We are happy to support the inclusion of EI 201 and EI 331 as recommended electives for this proposal. The number of students that you mention shouldn't be a challenge for EI 201 at all as we do plan to offer it twice per semester. As for EI 331, we hope to be able to offer it at least once a year, but we have been unable to do so in recent years. We are implementing a team teaching model this spring that we hope will allow at least an annual offering. My word of caution would be to have a backup plan in case we cannot offer EI 331 in a given year. I am happy to pre-register 10 or so participating students in EI 201 sections each year to ensure that they have seats. As you move forward with this process, we can discuss what that may look like and when you project to begin.” (Jennifer Capps, Nov 5, 2018)</p>
<ul style="list-style-type: none"> ● Matthew Booker, Program Director, Science Technology & Society, home to two courses the proposed concentration would like to 	<p>“Kevin, thanks for this. I'm very pleased you thought of STS courses this new subplan. I appreciate you running this by me, as there may be unintended consequences I haven't thought of--though</p>

<p>leverage within its undergrad curriculum/eight-semester display (STS 214, 405)</p> <ul style="list-style-type: none"> ● Approved with Caveat ● Change to Eight-Semester Display: Keeping STS 214 as an option; dropped STS 405 from display as a course few students would be able to access in any given year 	<p>I doubt it, and your email is very helpful in explaining possible student load. I am going to share with the Interdisciplinary Studies director of undergraduate programs, Dr. Carol Ann Lewald, and get back to you.” (Matthew Booker, Nov 2, 2018)</p> <p>“Kevin, I met with the director of undergraduate programs (Dr. Carol Ann Lewald) and scheduling officer for STS (Mr. Bruce Cheek). They noted two relevant facts: STS214 is a very popular course. As one of two required courses for the STS major, it fills quickly and we reserve a significant number of seats for STS majors each semester. STS405 is only offered every two years, and is a small course when offered. So the takeaway is that neither course is easy to take in any given semester. If students have other choices in your design, and won't be disappointed if either or both is unavailable, then I welcome you to use these.” (Matthew Booker, Nov 5, 2018)</p>
<ul style="list-style-type: none"> ● Greg Byrd, Associate Department Head, Electrical and Computer Engineering, home to two courses the proposed concentration would like to leverage within its undergrad curriculum/eight-semester display (ECE 109, 209) ● Discouraged ● Change to Eight-Semester Display: Removed these ECE courses which were aligned with two “free electives” in proposed curriculum and just left those electives open. Upon investigation, the recommended CSC 216 course is for majors only. 	<p>“I don't think that ECE 109 and 209 are the best choices for your students. These introduce both software and hardware at a ‘low’ level, close to the bits and circuits that implement the computing hardware. Its primary intent is to familiarize ECE students with digital logic and programming, to prepare them for interest in designing special-purpose hardware and system-level programming. I would think that your students would need/want an introduction to programming that would give them the opportunity to develop learning apps, mobile apps, etc. I would think that a two-course programming sequence in Computer Science, such as CSC 116/216 might be a better fit. While ECE 109 is open to any major, we really do expect ECE 209 students to be ECE students. It's not that we don't want your students, or that I don't support the proposal. I think it's a great idea.”</p> <p>(Greg Byrd, December 3, 2018)</p>
<ul style="list-style-type: none"> ● Carolyn Dunn, Department Head, Agricultural and Human Sciences, home to one course the proposed concentration would like to leverage within its undergrad curriculum/eight-semester display (AEE 325) ● Approved 	<p>“This sounds very interesting. I am including Travis Park, our undergraduate coordinator, and Jackie Bruce our DGP who can help you with this request.” (Carolyn Dunn, Nov 6, 2018)</p> <p>“Good evening! Yes, you can include AEE 325 in the new plan.” (Travis Park, Nov 7, 2018)</p>

Matriculation Requirements for an internal transfer student using Change of Degree Application system (CODA): 12 credit hours at NC State required.

Enrollment history and projections:

Number of majors and graduates in the parent degree in each of the past 4 years:

Projected enrollment for a 4-year period and explain the basis for the projections: The projected enrollment for this proposed concentration is conservative at startup with 5 students in year 1, 12 students in year 2 (7 freshmen, 5 sophomores), 21 students in year 3 (9 freshmen, 7 sophomores, 5 juniors), and 31 students in year 4 (10 freshmen, 9 sophomores, 7 juniors, 5 seniors). The basis for these projections is the number of students currently enrolled in the parent Education General plan (3 juniors, 9 seniors in spring 2019), some of whom may be interested in this sub-plan at startup, to be supplemented with an increasing number of new freshmen each year who hear about the program through recruiting measures and community ties.

Budget/Resources: Estimates of any additional cost required to implement the program and identify the proposed sources of the additional required funds (additional facilities, equipment, etc.): The proposed eight-semester display for this new concentration includes recommended courses for students to take from other program areas (as consulted above) in the freshmen through junior years and from the existing Learning Design & Technology master's program in the upper-level undergraduate and +1 master's year. As existing courses are widely available and already staffed, no additional costs are requested to implement the program.

Catalog description for the proposed curriculum that may be used for publishing: Learning Design and Technology is a relatively broad description of a field that focuses on applying what is empirically understood about how humans learn and improve upon performance to the design, development, implementation, and evaluation of instructional and non-instructional processes and resources intended to improve learning and performance in a variety of settings, particularly educational institutions and the workplace. The LDT area typically draws upon the fields of education, psychology, communications, and design in order to improve human performance and knowledge in all learning environments. Graduates would be expected to understand and leverage technologies as both product (such as developing online courses for distance learners, designing simulations and gaming, and/or developing instructional materials in a variety of learning environments) and process (such as an iterative and formative approach to learner assessment). Someone seeking this degree may practice their unique, multidisciplinary profession in a variety of settings including industry, K-12 schools, higher education, and government.

Describe the educational objectives for the concentration which may include or overlap the objectives of the parent degree, but must also contain objectives distinct to the concentration: Students who complete this concentration will be expected to apply skills across a wide variety of technological contexts. We expect a significant focus on software programs and learning platforms to be taught within these courses, while emphasizing design and development of pedagogically grounded learning activities, curricula, and learning environments. Graduates will develop flexible instructional design skills that can be applied to any technology-based learning situation. Core competencies may include communication, instructional design, systems thinking, learning theory, instructional problem solving, and assessment through inquiry and research. Specifically in instructional design, students will develop competencies in models and process, instructional strategies and intervention, analysis and evaluation, and management. Technology skills will include e-learning development, mobile learning, gaming, basic programming, and app development. Suggested competencies and skills for the program include:

Competency	Skills	Related Courses from Eight-Semester Display
Communication	<ul style="list-style-type: none"> ● Communicate effectively in written, oral, and visual formats. ● Produce clear, concise, and grammatically correct messages. ● Describe key differences between and produce messages intended for different audiences (e.g., instructional materials for learners, curriculum guides for instructors, technical documentation for end users). ● Develop logical arguments for use in persuasive messages and programming code. ● Deliver effective and engaging presentations. 	<ul style="list-style-type: none"> ● COM 211, Argumentation and Advocacy ● COM 395, Studies in Rhetoric & Digital Media ● ENG 332 Communication for Business and Management ● ECI 515, Technology, Media, & Culture

	<ul style="list-style-type: none"> ● Produce visuals that adhere to the principles of universal design. ● Use appropriate tools to communicate with learners, clients, and other stakeholders. ● Facilitate meetings to achieve agenda and goals. ● Apply effective questioning and facilitation techniques. ● Practice and engage in active listening. 	
Analysis	<ul style="list-style-type: none"> ● Analyze learning and performance problems to recommend appropriate solutions. ● Use a variety of analysis practices such as performance-system analysis; needs assessment; goal, task, learner, and context analysis. ● Use appropriate data collection methods and tools to conduct analyses. ● Determine subordinate and prerequisite knowledge and skills. ● Analyze content from a variety of human and non-human sources. ● Use analytics to address learning and performance questions. ● Estimate costs and benefits for proposed solutions. ● Write analysis reports and disseminate findings to stakeholders. 	<ul style="list-style-type: none"> ● SLC 250, Critical and Creative Decision Making Models ● EI 201, Exploring Interdisc Entrepreneurial Thinking ● EI 331, Interdisc Entrepreneurial Thinking I: Skills & Planning Basics ● ECI 516, Design & Evaluation of Instructional Materials
Design	<ul style="list-style-type: none"> ● Analyze historical designs and their influence on culture and society (e.g., photographs, advertising, mass media). ● Apply learning theory and thinking methods (e.g., systems, lateral, abductive) to design practice. ● Design interventions to address learning and performance. ● Design a curriculum, program, or learning solutions. ● Work with subject-matter experts and other team members to design interventions. ● Align outcomes, strategies, and assessments. ● Generate appropriate instructional strategies and activities. ● Design assessments to measure learning and performance. ● Identify the scope and sequence for instructional solutions. ● Use visual design principles appropriately. ● Generate design documents and disseminate findings to stakeholders. ● Apply universal design principles to designed instruction. ● Provide a rationale for design decisions 	<ul style="list-style-type: none"> ● AEE 325, Planning and Delivering Non-Formal Education ● GC 420, Visual Thinking ● HA 240, Intro to Visual Culture ● D 100 and 101, Design Inquiry I and II ● BIO 227, Understanding Structural Diversity through Biological Illustration ● D 231, Design History for Engineers & Scientists ● ECI 516, Design & Evaluation of Instructional Materials ● ECI 517, Theoretical Foundations of Advanced Learning Environments
Technology and Media	<ul style="list-style-type: none"> ● Describe the many roles of technology in society with an emphasis on the education sector. ● Describe the influences of culture on technology and technology on culture. ● Analyze the characteristics of existing and emerging technology. ● Select and use appropriate technology and media for specific outcomes. ● Provide a rationale for technology and media decisions. ● Develop instructional materials (e.g., programmed games, desktop publishing, e-learning) using a variety of media and software. 	<ul style="list-style-type: none"> ● ANT 261, Technology in Society & Culture ● BIT 100, Current Topics in Biotechnology ● STS 214, Science, Technology, & Society ● CSC 281, Foundations of Interactive Game Design ● TDE 205, Desktop Publishing & Imaging Tech ● ECI 512, Emerging Technologies for Teaching

	<ul style="list-style-type: none"> ● Develop and/or apply web-based instruction, e-learning, social media, and content management tools to address identified learning needs. ● Use technology correctly for professional communication purposes. ● Use technology tools and software in the design process. ● Analyze the cost and benefit of technology and media use. 	<p>& Learning</p> <ul style="list-style-type: none"> ● ECI 513, Teaching & Learning with Digital Video ● ECI 514, Multimedia Design & Applications in Instruction
Evaluation and Inquiry	<ul style="list-style-type: none"> ● Design and develop evaluation plans to include questions and sources of data to inform those questions. ● Conduct a formative evaluation of an instructional intervention. ● Apply qualitative synthesis and quantitative methods to analyze gathered data. ● Write proposals for evaluation. ● Develop a communication, implementation, and monitoring plan. ● Manage the evaluation process from planning to data gathering with stakeholders to reporting. ● Generate evaluation reports; disseminate findings to stakeholders. ● Provide a rationale for evaluation decisions. 	<ul style="list-style-type: none"> ● AEE 325, Planning and Delivering Non-Formal Education ● SLC 250 Critical and Creative Decision Making Models ● ST 311, Intro to Statistics ● ECI 516, Design & Evaluation of Instructional Materials ● ECI 520, Technology Program Evaluation
Management	<ul style="list-style-type: none"> ● Develop a management plan for instructional systems design and development. ● Generate a budget. ● Allocate resources. ● Establish project scope and goals. ● Write proposals to obtain resources. ● Identify and resolve management issues. ● Manage project personnel. ● Collaborate with team members, clients, and stakeholders. ● Apply appropriate management tools such as information systems and databases for business practices. ● Apply marketing methods to promote designed instructional systems. 	<ul style="list-style-type: none"> ● ENG 332 Communication for Business and Management ● ECI 516, Design & Evaluation of Instructional Materials ● ECI 518, Digital Learning Program & Staff Development
Personal & Interpersonal	<ul style="list-style-type: none"> ● Collaborate effectively with others. ● Give and receive constructive feedback. ● Build positive relationships with team members, clients, and other stakeholders. ● Recognize and accommodate individual and cultural differences. ● Adhere to legal guidelines and ethical standards of the profession. ● Stay current about advances in instructional systems and learning technology. 	<ul style="list-style-type: none"> ● D 100 and 101, Design Inquiry I and II ● ENG 332 Communication for Business and Management ● ECI 515, Technology, Media, & Culture

Format A (8-semester display) showing the structure of the program on a semester basis. All pre- and co-requisites for required courses must be included in the curriculum.

Freshman Year

FALL	CREDIT	SPRING	CREDIT
ENG 101 Acad Writing & Research ^H	4	HES Health & Exercise Studies Course ^E	1
PSY 200 Intro. to Psy. ^D	3	GEP Mathematical Sciences ^A	3
GEP Mathematical Sciences ^A	3	SOC 202 Prin. of Sociology ^D	3
Communications/Speech Elective ¹ (recommend COM 211 Argumentation and Advocacy)	3	Free Elective	3
HES Health & Exercise Studies Course ^E	1	Teaching Field ²	3
ED 100 Intro to Education	2	GEP Interdisciplinary Perspectives Elective ^{G,I,J} (recommend ANT 261, Technology in Society & Culture)	3
	16		16

Sophomore Year

FALL	CREDIT	SPRING	CREDIT
GEP Natural Science ^B (any, although BIT 100 might provide further context of technology in society)	3	GEP Natural Science ^B (recommend BIO 227, Understanding Structural Diversity through Biological Illustration)	4
Supporting Elective ³ (recommend D 100, Design Inquiry I)	3	GEP Interdisciplinary Perspectives Elective ^{G,I,J} (recommend D 101, Design Inquiry II)	2-3
Teaching Field ² (recommend ECI 201, Intro to Instructional Technology for Educators)	3	GEP Additional Breadth Elective ^{F,I,J} (recommend ST 311 Intro to Statistics)	3
History Elective ^{4,C,I,J} (region studies, any)	3	Literature Elective ^{9,C,I,J} (recommend COM 395 Studies in Rhetoric & Digital Media, or COM 200 Communication Media in a Changing World)	3
Free Elective	3	Free Elective	1
	15		13-14

Junior Year

FALL	CREDIT	SPRING	CREDIT
ELP 344 School & Society	3	PSY 376 Developmental Psy. ⁷	3
Supporting Elective ³ (recommend CSC 281 Foundations of Interactive Game Design)	3	Supporting Elective ³ (recommend TDE 205 Desktop Publishing and Imaging)	3
Teaching Field ²	3	Teaching Field ²	3
Teaching Field ² (recommend EI 201 Exploring Interdisc Entrepreneurial Thinking)	3	Teaching Field ² (recommend EI 331 Interdisc Entrepreneurial Thinking I: Skills & Planning Basics)	3
Advanced Writing Elective ⁶ (recommend ENG 331, Communication for Engineering and Technology, or ENG 332, Communication for Business and Management)	3	Education Elective (recommend STS 214 Intro to Science Technology & Society)	3
		Free Elective (recommend SLC 250 Critical and Creative Decision Making Models)	3
	15		18

Senior Year

FALL	CREDIT	SPRING	CREDIT
EDP 304 Educational Psychology	3	Free Elective (recommend HA 240 Intro to Visual Culture)	3
Free Elective (recommend GC 420 Visual Thinking)	3	Teaching Field ² (recommend drawing from 500-level instructional/media design courses in LDT master's program, i.e., ECI 512, 513, 514, 515, 516, 517, 518)	3
Free Elective (recommend AEE 325 Planning and Delivering Non-Formal Education)	3	Teaching Field ² (recommend drawing from 500-level instructional/media design courses in LDT master's program, i.e., ECI 512, 513, 514, 515, 516, 517, 518)	3
Supporting Elective ³	3	Teaching Field ² (recommend drawing from 500-level instructional/media design courses in LDT master's program, i.e., ECI 512, 513, 514, 515, 516, 517, 518)	3
Teaching Field ² (recommend drawing from 500-level instructional/media design courses in LDT master's program, i.e., ECI 512, 513, 514, 515, 516, 517, 518)	3		
	15		15

Master's +1 Year (note, eligible students with 3.5 undergraduate GPA can double count 12 hours from B.S. toward a Master's degree; 18 new hours completed in year 5 to meet 30-hour M.Ed.)

FALL	CREDIT	SPRING	CREDIT
Students draw from 500-level instructional/media design courses in LDT master's program (i.e., ECI 512, 513, 514, 515, 516, 517, 518)	3	ECI 652 Field-Based Applications of Learning Design & Technology (internship)	3
ECI 546 New Literacies and Media	3	ECI 502 Technology Program Evaluation	3
ECI 721 Technology and Informal Learning Environments	3	ECI 722 Theory and Research in Distance Education	3
	9		9

Minimum Hours Required for Undergraduate Graduation: *,^K 120

Minimum Hours Required for ABM Bachelor's + Master's Graduation: 138

Major/Program Footnotes

1. Choose a Communications/Speech Elective from COM 110, 146, or 211.
2. Teaching Field classes are chosen from the subject specific areas of interest and approved by advisor.
3. Supporting Education, Psychology, Sociology, or advisor-approved elective.
4. Choose History Elective from AFS 275, 276; HI 205, 207, 208, 209, 210, 215, 216, 221, 222, 233, 251, 252, 263, 264, 270, 275, 276; HON 290, 293
5. Choose from ECI 205, EMS 203, or EOE 207
6. Choose from ENG 201, 215, 272, 287, 288, 289, 323, 331, 332, 333
7. PSY 475 or 476 may be taken instead.
8. PSY 307, 311, 312, 340; SOC 203, 205, 311, 402, 418 may be taken instead.
9. Choose course from the approved GEP Humanities list/* 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 <https://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.
- 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.
- 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 of 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: PSY 200, SOC 202
- E. Health & Exercise Studies (2 credit hours – at least one 100-level Health & Exercise Studies 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 or X Mathematical Sciences/Natural Sciences/Engineering
- G. Interdisciplinary Perspectives (5-6 credit hours) Choose from the University approved GEP Interdisciplinary Perspectives course list.
- 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 list as meeting the U.S. Diversity (USD) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: See History and Literature Elective
- J. Global Knowledge (GK) Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course list as meeting the Global Knowledge (GK) co-requisite. The following course(s) completed as part of the Major requirements may fulfill this requirement: See History and Literature elective
- K. Foreign Language Proficiency – Proficiency at the FL 102 level is required for graduation

Format B (List of Requirements) Include any C-wall restrictions on courses and any other requirement detail for the degree audit.

Printout of the current 8-semester display for the parent degree:

Freshman Year

FALL	CREDIT	SPRING	CREDIT
ENG 101 Acad Writing & Research ^H	4	HES_***Health & Exercise Studies Course ^E	1
PSY 200 Intro. to Psy. ^D	3	GEP Mathematical Sciences ^A	3
GEP Mathematical Sciences ^A	3	SOC 202 Prin. of Sociology ^D	3
Communications/Speech Elective ¹	3	Free Elective	3
HES_***Health & Exercise Studies Course ^E	1	Teaching Field ²	3
ED 100 Intro to Education	2	GEP Interdisciplinary Perspectives Elective ^{G,I,J}	3
	16		16

Sophomore Year

FALL	CREDIT	SPRING	CREDIT
GEP Natural Science ^B	3	GEP Natural Science ^B	4
Supporting Elective ³	3	GEP Interdisciplinary Perspectives Elective ^{G,I,J}	2-3
Teaching Field ²	3	GEP Additional Breadth Elective ^{F,I,J}	3
History Elective ^{4,C,I,J}	3	Literature Elective ^{9,C,I,J}	3
Free Elective	3	Free Elective	1
	15		13-14

Junior Year

FALL	CREDIT	SPRING	CREDIT
ELP 344 School & Society	3	Teaching Field ²	6
Supporting Elective ³	3	Education Elective	3
Teaching Field ²	3	PSY 376 Developmental Psy. ⁷	3
Teaching Field ²	3	Supporting Elective ³	3
Advanced Writing Elective ⁶	3	Free Elective	3
	15		18

Senior Year

CREDIT	SPRING	CREDIT
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FALL

Free Elective	3	Teaching Field ²	9
EDP 304 Educational Psychology	3	Free Elective	3
Supporting Elective ³	3		
Teaching Field ²	3		
Free Elective	3		
	15		12

Minimum Hours Required for Graduation: *,^K 120

Major/Program Footnotes:

1. Choose a Communications/Speech Elective from COM 110, 146, or 211.
2. Teaching Field classes are chosen from the subject specific areas of interest and approved by advisor.
3. Supporting Education, Psychology, Sociology, or advisor-approved elective.
4. Choose History Elective from AFS 275, 276; HI 205, 207, 208, 209, 210, 215, 216, 221, 222, 233, 251, 252, 263, 264, 270, 275, 276; HON 290, 293
5. Choose from ECI 205, EMS 203, or EOE 207
6. Choose from ENG 201, 215, 272, 287, 288, 289, 323, 331, 332, 333
7. PSY 475 or 476 may be taken instead.
8. PSY 307, 311, 312, 340; SOC 203, 205, 311, 402, 418 may be taken instead.
9. Choose course from the approved GEP Humanities list/^{*} 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 <https://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.
- 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.
- 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 of 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: PSY 200, SOC 202
- E. Health & Exercise Studies (2 credit hours – at least one 100-level Health & Exercise Studies 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 or X Mathematical Sciences/Natural Sciences/Engineering
- G. Interdisciplinary Perspectives (5-6 credit hours) Choose from the University approved GEP Interdisciplinary Perspectives course list.
- 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

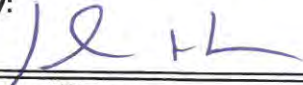
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- K. Foreign Language Proficiency – Proficiency at the FL 102 level is required for graduation

Signature Page:

North Carolina State University

This request has been reviewed and approved by the appropriate campus committees and authorities.


Endorsed By:

 _____ 2/4/19
Head, Department/Program Date

Recommended By:

 _____ 2/5/19
Chair, College Curriculum Committee Date

Endorsed By:

 _____ 2/26/19
College Dean Date

Recommended By:

Vice Provost, DELTA (if DE degree/certificate) Date

Recommended By:

Chair, University Courses & Curricula Committee Date

Approved By:

Dean, (DASA or the Graduate School) Date

Recommended By:

Dean's Council Date

Approved By:

Executive Vice Chancellor and Provost Date

Approved By:

Chancellor Date



College of Agriculture and Life Sciences
Academic Programs
Office of the Director
harvest.cals.ncsu.edu/academic

Campus Box 7642
111 Patterson Hall
Raleigh, NC 27695-7642
P: 919.515-2614

Memorandum

Date: March 13, 2019

To: Dr. Mike Mullen, Vice Chancellor and Dean for Academic and Student Affairs

From: John Dole, Associate Dean, CALS

A handwritten signature in black ink, appearing to read "John Dole", is written over the "From:" line.

Subject: Change of CIP code for college-level courses

We are requesting a change to the CIP Code for the college-level prefix ALS to 01.0000 Agriculture, General. The current CIP code, Agricultural Business and Management, General, is already being used by one of our departments, Agricultural and Resource Economics, and we think a CIP code that better represents the college would be more appropriate. Thank you.