# Proposal Dual Degree Programs 

| AB in English | BSEd. in English Teacher Education |
| :--- | :--- |
| BS in Mathematics | BSEd in Mathematics Teacher Education |
| BS in Biology | BSEd in Science Teacher Education, Biology |
| AB in History | BSEd in Social Science Teacher Education |

Institution: The University of Georgia
Date: January 31, 2003
School/Division: College of Education/ School of Teacher Education College of Arts and Sciences

## Departments:

Department of Language Education
Department of Mathematics Education
Department of Science Education
Department of Social Science Education

Department of English
Department of Mathematics
Department of Biological Sciences
Department of History

Name of Proposed Program: Dual Degree in English and English Teacher Education
Dual Degree in Mathematics and Mathematics Teacher Education
Dual Degree in Biology and Science Teacher Education, Biology
Dual Degree in History and Social Science Teacher Education
Degree: AB in English and BSEd in English Teacher Education
BS in Mathematics and BSEd in Mathematics Teacher Education
BS in Biology and BSEd in Science Teacher Education, Biology
AB in History and BSEd in Social Science Teacher Education
Major: English and English Teacher Education
Mathematics and Mathematics Teacher Education
Biology and Science Teacher Education, Biology
History and Social Science Teacher Education

## CIP Code:

Starting Date: August 2003
(Signatures on next page)

## Signatures:

$\frac{\text { Nelonon Heston/ NiA4ti-31-03 }}{\text { Department Head, English }}$


College of Education Curriculum Committee Chair

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Date

Senior Vice President for Academic Affairs and Provost
Date

# Proposal for Dual Degrees between Various Arts and Sciences and Education Programs at the University of Georgia 

## Program abstract

The purpose of this proposal is to delineate a plan for creating four dual degree options for students wishing to major in an Arts and Sciences discipline and an Education discipline. Dual degree programs in the areas listed in Table I allow students to earn both a degree in an Arts and Sciences major (e.g., English) and the corresponding Education major (e.g., English Teacher Education) in slightly more than four years.

These program options allow students to earn degrees in both colleges, giving them more career flexibility and rewarding them for their work. Students who would have majored in an Arts and Sciences content field will have the added option of teaching by completing one of these dual degree programs, and those who know they want to teach will graduate with a stronger content base.

Table I - Proposed Dual Majors

| Arts and Science Major | Education Major |
| :--- | :--- |
| English-AB | English Teacher Education-BSEd |
| Mathematics-BS | Mathematics Teacher Education-BSEd |
| Biology-BS | Science Teacher Education, Biology-BSEd |
| History-AB | Social Science Teacher Education-BSEd |

The proposed dual degree programs simply systematize the rules for what some more aggressive students are already accomplishing. Approval of standard dual degree options, however, will offer a simple and consistent recipe for students to attain this goal. At present, students wishing to complete dual degrees must negotiate with advisors in both their Education and Arts and Sciences majors. This proposal codifies these requirements, thus eliminating the potential for advising errors and stimulating students to take further coursework in their majors.

Students wishing to follow the dual degree option would experience the following changes in their programs.

- Arts and Sciences majors are required to take a foreign language option in the core, while most Education majors are not. Dual degree candidates would be required to fulfill the foreign language requirement.
- Most Education majors take the equivalent of a major in their discipline. In some majors, the number of courses is one to two fewer than the exact number of courses required in Arts and Sciences. In other cases, Education majors take additional disciplinary courses not required in an Arts and Sciences major because these reflect what a prospective teacher will teach in secondary school (e.g., geometry). A standard set of courses is proposed for each of the dual degrees that will fulfill all requirements for majors in both Arts and Science and Education.
- In most cases, students will have to take fewer than 12 semester hours of extra coursework to qualify for dual degrees.

The proposed dual degrees allow UGA to offer options to students strictly out of existing resources and at no additional cost. This allows students to maximize degree and career options. Furthermore, the degrees require the healthy and full collaboration of two of UGA's best colleges.

## Objectives of the program

The main purpose of the dual degree programs is to allow students who meet the major requirements in an Arts and Sciences major and its corresponding Education major to be awarded a degree in each discipline.

## Justification and need for the program

Georgia is experiencing a severe shortage of $\mathrm{K}-12$ teachers. Reasons are numerous, including changes in class size, a high number of retirements, and a decrease in production of teachers of over $25 \%$ in the state's teacher education institutions. It is likely this trend will continue to worsen, unless something is done to attract and retain the best and brightest into the teaching profession. At the same time, many Arts and Sciences majors are searching for a rewarding and meaningful career. This proposal for a set of dual degrees between Arts and Sciences and Education majors aims to address the teacher shortage and to offer career options to UGA students.

Both the Arts and Sciences majors (English, mathematics, biology, and history) and Education majors (English, mathematics, science and social science teacher education) are highly regarded across the state and nation. Taken as a whole the teacher education programs were ranked fourth in the nation by the US News and World Report in 2002. Given that UGA students already take most of the coursework for a dual degree, it makes sense to codify the process and thus make the dual degree option available to more students.

Numerous UGA students presently major in an Arts and Sciences discipline without serious consideration of a career until late in their UGA tenure. Many try to add teacher certification during their fourth year, forcing them to take additional semesters to finish their work. In addition, a large number of incoming first-year students enter UGA with several advanced placement courses and thus college credit and are looking for options such as a dual degree. The dual degree options presented here would allow many of these students to choose teaching as a career earlier in their tenure at UGA. These options would also make teaching a more attractive career choice for these students, thus helping to alleviate the teacher shortage in the state.

## Curriculum - Organization of the curriculum

Attached is the organization of the curriculum for each of the proposed programs, including degree and coursework requirements for individual Arts and Sciences and Education programs.

English/English Teacher Education is Appendix A.
Mathematics/Mathematics Teacher Education is Appendix B.
Biology/Science Teacher Education, Biology is Appendix C.
History/Social Science Teacher Education is Appendix D.

## Admission

To be eligible for a dual degree, a student must be admitted separately to both the appropriate Arts and Sciences and Education degree programs. Faculty committees in each program will make admissions decisions independently.

Students will be identified as early as possible in order to get them working on coursework with the dual degree framework for their major pair. Students must meet all requirements for admission to teacher education, which normally happens at the end of Year 2. Requirements include an overall minimum GPA of 2.5 ( 2.6 for English Teacher Education), passing scores on PRAXIS 1, and completion of some coursework particular to the department of entry.

## Contact Persons

| General Proposal | Cindy Molloy | COE | cmolloy@coe.uga.edu | $3-8269$ |
| :--- | :--- | :--- | :--- | :--- |
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| English Education | Joel Taxel | COE | jtaxel@coe.uga.edu | $2-4511$ |
| Mathematics | Clint McCrory | A\&S | clint@math.uga.edu | $2-2576$ |
| Mathematics Education | Pat Wilson | COE | pwilson@coe.uga.edu | $2-4547$ |
| Biology | Bill Barstow | A\&S | barstow@dogwood@botany.uga .edu | $2-1688$ |
| Science Education | Tom Koballa | COE | tkoballa@coe.uga.edu | $2-1763$ |
| History | Michael Winship | A\&S | mwinship@arches.uga.edu | $2-2053$ |
| Social Science Education | Kathleen DeMarrais | COE | kathleen@coe.uga.edu | $2-7265$ |

## Fiscal and enrollment impact

In informal surveys conducted in upper division classes in each of the teacher education programs mentioned in this proposal, it was found that approximately $80 \%$ of the students surveyed would have been interested in a dual degree program had it been available early in their academic career. Some students indicated that they are already doing this on their own, but formalizing the process would make it easier for others.

No new funding would be required to implement this program.

## Appendix A

## Dual Degree Program <br> A.B. in English and B.S.Ed. in English Education

## Introduction

This proposal for a dual-degree program would result in students earning an A.B. in English and a B.S.Ed. in English Education. The number of hours to degree under this scenario will vary based on a number of factors, and much will depend on how early the student decides on the program and begins being advised for it. The Area F for this program is particularly weighty, up to 23 hours as opposed to the standard 18 hours for most majors, so early advising will be especially important. Those who decide to pursue the dual degree later in their degree programs will inevitably require more hours to complete the program, but how many more will depend on a number of factors. The existence of the HOPE Promise Scholarship program, which provides forgivable loans of up to $\$ 6,000$ for HOPE-eligible students planning to teach in high-need areas in Georgia public schools, will make this program potentially attractive even to students quite late in their degree programs.

Both the English Department and the English Education Department have agreed to allow certain changes in their current programs. The changes are as follows:

1. The English Education Department would add four Comparative Literature courses (CMLT 2111, 2112, 2210, and 2220) as options in Area F. Currently, the English Department allows students to include ONE of these courses in Area F to satisfy the prerequisites for upper-division course work.
2. The English Department would allow students to take two 2000-level education courses, EFND 2030 and EPSY 2020, as Area F electives. Currently, students must choose from a list of lower-division humanities courses. [*Note: This would apply only to dualdegree students, not to all English majors.]
3. The English Department would allow students to include ELAN 4410 (Adolescent Literature, Grades 7-12) in their A.B. program as a major elective. [*Note: This would apply only to dual-degree students, not to all English majors.]

## Time to Graduation

Time to graduation will vary, but here are some likely scenarios for completion of this program:

- A student who enters UGA with no A.P. credit and no foreign language exemptions can complete the program in $\mathbf{1 3 1}$ hours. This scenario assumes that the student did NOT complete the first three semesters of foreign language in the core.
- A student who enters UGA with no A.P. credit and no foreign language exemptions, but who begins the program early enough to use core hours to complete the first three semesters of foreign language, can complete the program in $\mathbf{1 2 7}$ hours.
- A student who begins foreign language at the 1110 level, and who begins the program early enough to use core hours to complete all four semesters of foreign language, can
complete the program in $\mathbf{1 2 3}$ hours.
- A student with foreign language exemptions through 1002 (i.e., who begins foreign language at the 2001 level) can complete the program in $\mathbf{1 2 1}$ hours.


## Current Requirements

## A.B. in English

- Completion of Core Areas A-E
- Completion of Core Area F:
- Choose one course from: ENGL 2310, ENGL 2320, ENGL 2330, ENGL 2340, or ENGL 2400
- Choose a second course from: ENGL 2310, ENGL 2320, ENGL 2330, ENGL 2340, ENGL 2400 or a course from: CMLT 2111, CMLT 2210, CMLT 2212, CMLT 2220
- Choose six hours from the following: ARHI 2100, ARTS 2000, ARTS 2050, CLAS 1000, CLAS 1010, CLAS 1020, CLAS(LING) 2010, DRAM 2000, DRAM 2120, HIST 2051, HIST(AFST) 2052, HIST 2111, HIST 2112, HIST 2301, HIST 2302, HIST 2701, HIST 2702, LING 2100, MUSI 2020, MUSI 2080, PHIL 1000, PHIL 1500, PHIL 2200, PHIL 2400, RELI 1001, RELI 1002, RELI 1003, RELI 2004, RELI(AFAM) 2005
- Take 2 semesters of foreign language (competency through the fourth semester is required for the English major)
- Completion of 30 hours of upper division English courses
- English 3000 is required (3 hours)
- Choose three courses from the list of pre-1800 British literature courses (9 hours)
- Choose one course from the list of $19^{\text {th }}$ - and $20^{\text {th }}$-Century British literature courses (3 hours)
- Choose one course from the list of American literature courses (3 hours)
- Choose one course from the list of courses focusing on language, criticism, and/or culture (3 hours)
- Choose three major electives (any three upper-division English courses; at least one must be at the 4000 level) ( 9 hours)
- Completion of 30 hours of general electives (Note: All electives are free unless two 2000-level literature courses or language competency through the fourth semester were not completed with the core. At least three electives must be taken at the 3000/4000level.)
B.S.Ed. in English Education
- Completion of Core Areas A-E
- Completion of Core Area F:
- SPCM 1100 or SPCM 1500
- EFND 2030
- EPSY 2020
- One semester of foreign language (1110 or above preferred)
- Two ENGL courses chosen from the following: ENGL 2310, ENGL 2320, ENGL 2330, ENGL 2340, ENGL 2400
- Completion of 30 hours of required major courses: ELAN 4400, ELAN 4401, ELAN 4460, ELAN 4462/6462, ELAN 4470, ELAN 5460 (9 hours), READ 4030, SPED 2000
- Completion of 24 hours of major electives
- ELAN 4410 is required ( 3 hours)
- Choose one course from the approved list of British literature/Shakespeare courses (3 hours)
- Choose one course from the approved list of American literature courses (3 hours)
- Choose one course from the approved list of World literature courses (3 hours)
- Choose one course from the approved list of language study courses (3 hours)
- Choose three courses from the approved list of upper-division literature electives (9 hours)
- Completion of 6 hours of general electives (free, any level)


## Requirements for Proposed Dual-Degree Program

## - Core Curriculum (56-58 hours):

- Area A: Essential Skills (9 hours)

Required courses: English 1101, English 1102 or 1102M, and Math 1101

- Area B: Institutional Options (4 hours)

Recommended: foreign language (3 or 4 hours)

- Area C: Humanities/Fine Arts (6 hours)

Recommended:
Two courses to satisfy the Franklin College Fine and Performing Arts/Philosophy/Religion requirement.

- Area D: Science, Mathematics, and Technology (10 hours)

Take one science with lab and one without. One must be a biological science and the other must by a physical science. Choose the third class from the list of approved math, science, or technology courses.

- Area E: Social Sciences (12 hours)

Take four courses from the approved list. At least two departments must be represented. Recommended: POLS 1101 and HIST 2111 or 2112

- Area F: Major-Related Courses (23 hours)
- One ENGL 2000-level survey course
- One ENGL 2000-level survey course or CMLT 2111, 2210, 2212, 2220
- EFND 2030
- EPSY 2020
- SPCM 1100 or SPCM 1500
- Two foreign languages


## - Major Requirements (60 hours):

- Upper-division English courses (30 hours)
- All students must take ENGL 3000 and ELAN 4410.
- One course must be chosen from the approved list of Language Study courses.
- If the Franklin College multi-cultural requirement has not been satisfied by a core class, such as ENGL 1102M or 2400, one major class must be chosen from the approved list of multi-cultural courses.
- All other courses should be chosen to satisfy the English major distribution requirements, which will simultaneously satisfy those of the English Education major.
- Teacher education courses (30 hours)

ELAN 4400, 4401, 4460, 4462/6462, 4470, 5460 (9 hours), READ 4030, and SPED 2000

- Other Requirements (7 hours)
- Semesters three and four of foreign language, if not completed in the core (0-6 hours)
- Basic physical education (1 hour)

TOTAL: 132 hours

## Appendix B

## BS Mathematics

(from on-line Bulletin)
Core A-E

| Area A |  |  |
| :--- | :---: | :--- |
| ENGL 1101 | 3 |  |
| ENGL 1102 | 3 |  |
| MATH 1113 | 3 |  |
|  |  |  |
| Area B | 3 |  |
| Electives |  |  |
|  |  |  |
| Area C | 3 |  |
| see Core curriculum |  |  |
| see Core curriculum | 8 |  |
|  |  |  |
| Area D | 4 |  |
| Two of <br> PHYS 1211-1211L, 1212-1212L, <br> CSCI 1301-1301L |  |  |
| MATH 2200/L | 12 |  |
|  |  |  |
| Area E |  |  |
| see Core curriculum |  |  |


| Area $F$ |
| :--- |
| MATH 2210-2210L 4  <br> Two of   <br> PHYS 1211/L, 12121L, $7-8$ Courses not taken in Area D <br> CSCI 1301/L, 1302, 2670, 2720   <br> Two of <br> MATH 2500,2700, PHIL 2500, <br> biological science approved for Area $7-8$ At least one MATH course <br> D,   <br> CHEM approved for Area D $\geq 1211$   <br> Language (2 $2^{\text {nd }}, 3^{\text {rd }}$, or $4^{\text {th }}$ sem. )   |

Major: Content

| MATH 4000 | 3 | Program requirement |
| :--- | :---: | :--- |
| one of MATH 4100, 4150, 4250 | 3 |  |
| MATH | 18 | 3000-level or above, subject to the advisor's approval; <br> A major program may include no more than two courses among <br> MATH 4710, 4760, 4780, 4850, 4900, 4950, <br> and may include only MATH 5200 and MATH 5210 at the <br> $5000-l e v e l ~$ |
|  | 24 |  |

Electives

| Any level | 21 |  |
| :--- | :--- | :--- |
| Upper level | 15 |  |
|  | 36 |  |

## BSED

Mathematics Education
Core A-E

| Area A |  |  |
| :--- | :---: | :--- |
| ENGL 1101 | 3 |  |
| ENGL 1102 | 3 |  |
| MATH 1113 or MATH 2200/L | $3-4$ | MATH 2200/L preferred if MATH 1113 exempt |
|  |  |  |
| Area B |  |  |
| Elective | 4 | elective |
|  |  |  |
| Area C | $0-3$ | Fine Arts elective |
| Fine Arts | $3-6$ | Humanities elective |
| Humanities |  |  |
|  |  |  |
| Area D | 4 | Science elective |
| Lab Science | 4 | Science elective |
| Lab Science | 4 | no change |
| MATH 2200/L or MATH 2210/L |  |  |
|  | 12 | no changes |
| Area E |  |  |
| Social Science |  |  |

Area F

| EFND 2030, EPSY 2020, SPED <br> 2000 | 9 | no changes |
| :--- | :---: | :--- |
| MATH 2210.L, MATH 2500/2700, <br> PHYS1212, CSCI1301/1302, STAT <br> 2000, SPCM 1100,1500, EMAT <br> 2000 | 9 | Choose three courses |

Electives

| Free electives | 6 |  |
| :--- | :---: | :--- |
| Major: Content   <br> MATH 3000 3 Certification Requirement <br> MATH 3200 3 Prerequisite for upper level MATH courses <br> MATH 4000 3 Certification Requirement <br> MATH 5200 3 Certification Requirement <br> EMAT 4680 3 Certification Requirement <br> STAT 4070, 4210, MATH 4600 3 Certification Requirement (select one) <br> MATH 4100, 4150, 4250, 3100, 9 Choose three upper level content elective, at least one MATH <br> 5210   <br> MATH   <br> EMAT 4550, 4600, 4650   <br> EMAT 27  <br>    |  |  |

Major: Professional

| Curriculum EMAT 3500 \& 4500 | 6 | Program requirement |
| :--- | :---: | :--- |
| Methods EMAT 4360 \& 5360 | 6 | Program requirement |
| Student Teaching EMAT 5460 | 10 | Program requirement |
| EMAT 3450 (2) | 2 | Program requirement |
| Post Stud. Teach. EMAT 4950 | 3 | Program requirement |
|  | 27 |  |

## Dual Degree

 BS Mathematics and BSED Mathematics EducationCore A-E

| Area A |  |  |
| :--- | :---: | :--- |
| ENGL 1101 | 3 |  |
| ENGL 1102 or 1102M | 3 | ENGL 1102M preferred, A\&S multicultural requirement |
| MATH 1113 or MATH 2200/L | $3-4$ | MATH 2200/L preferred if MATH 1113 exempt |
|  |  |  |
| Area B |  |  |
| Language | 4 |  |
|  |  |  |
| Area C | 3 | A\&S requirement |
| Literature | 3 | A\&S requirement |
| Fine/performing arts, RELI, PHIL |  |  |
|  | 4 | A\&S requirement |
| Area D | 4 | A\&S requirement |
| Physical Science-PHYS1211 | 4 |  |
| Biological Science |  |  |
| MATH 2200/L or MATH 2210/L | 12 |  |
|  |  | no changes except HIST required |
| Area E |  |  |
| History |  |  |

Area $F$

| EFND 2030, EPSY 2020, SPED <br> 2000 | 9 | Required for BSED and certification |
| :--- | :---: | :--- |
| MATH 2500/2700 | 3 |  |
| PHYS1212/CSCI1301/1302 | 4 |  |
| MATH 2210/L or STAT 2000 | 4 |  |

Additional courses required for Arts and Science

| Language | $3-4$ | A\&S requirement, AP and/or UGA placement test can be used |
| :--- | :---: | :--- |
| Language | $3-4$ | A\&S requirement |
| Fine/performing arts, RELI, PHIL | 3 | A\&S requirement |
|  |  |  |
|  | $<75$ |  |

Major: Content

| MATH 3000 | 3 | Certification Requirement |
| :--- | :---: | :--- |
| MATH 3200 | 3 |  |
| MATH 3100 | 3 |  |
| MATH 4000 | 3 | Certification Requirement |
| MATH 5200 | 3 | Certification Requirement |
| EMAT 4680 | 3 | Certification Requirement |
| STAT 4070, 4510, MATH 4600 | 3 | Certification Requirement (select one) |
| MATH 4100, 4150, 4250 | 3 | (select one) |
| MATH major elective | 3 |  |
|  | 27 |  |

Major: Professional

| Curriculum EMAT 3500 \& 4500 | 6 | Program requirement EMAT; MATH use electives |
| :--- | :---: | :--- |
| Methods EMAT 4360 \& 5360 | 6 | Program requirement EMAT; MATH use electives |
| Student Teaching EMAT 5460 | 10 | Program requirement EMAT; MATH use electives |
| EMAT 3450 (2) | 2 | Program requirement EMAT; MATH use electives |
| Post Stud. Teach. EMAT 4950 | 3 | Program requirement EMAT; MATH use electives |
|  | 27 |  |

Total $=129$ hours

## Appendix C

## Science Education and Biology Dual Degree Program

To graduate with these degrees, students must satisfy the Franklin College graduation and multicultural requirements.

|  | BIOL B. S. | ESCI B.S. Ed. | Dual Program |
| :---: | :---: | :---: | :---: |
| Core Curriculum |  |  |  |
| $\begin{aligned} & \text { Area A } \\ & 9 \text { - BIOL/ESCI } \\ & 9 \text { - Dual } \end{aligned}$ | ENGL 1101 <br> ENGL 1102 <br> MATH 1113 | ENGL 1101 <br> ENGL 1102 <br> MATH 1113 | ENGL 1101 <br> ENGL 1102 <br> MATH 1113 |
| $\begin{aligned} & \hline \text { Area B } \\ & 4-5-\text { BIOL } \\ & 4-\text { ESCI } \\ & 4 \text { - Dual } \\ & \hline \end{aligned}$ | Electives | Electives | *Electives |
| $\begin{array}{\|l\|} \hline \text { Area C } \\ 6 \text { - BIOL/ESCI } \\ 6 \text { - Dual } \\ \hline \end{array}$ | Electives in humanities \& fine arts | Electives in humanities \& fine arts | *Electives in humanities \& fine arts |
| $\begin{aligned} & \text { Area D } \\ & 10-11 \text { - BIOL } \\ & 12 \text { - ESCI } \\ & 12 \text { - Dual } \end{aligned}$ | BIOL 1107, 1107L CHEM 1211, 1211L MATH 2200, 2200L | CHEM 1211, 1211L <br> CHEM 1212, 1212L <br> MATH 2200, 2200L | BIOL 1107, 1107L CHEM 1211, 1211L MATH 2200, 2200L |
| $\begin{aligned} & \text { Area E } \\ & 12-\text { BIOL/ESCI } \\ & 12 \text { - Dual } \end{aligned}$ | POLS 1101, 1101D HIST 2111 or 2112 Electives in social sciences ( 6 hrs ) | POLS 1101, 1101D <br> HIST 2111 or 2112 <br> Behavioral Science <br> elective (3 hrs) <br> Social Science elective <br> (3 hrs) | POLS 1101, 1101D <br> HIST 2111 or 2112 <br> Behavioral Science <br> elective (3 hrs) <br> Social Science elective <br> (3 hrs) |
| $\begin{aligned} & \text { Area F } \\ & 18-\text { BIOL/ESCI } \\ & 17-\text { ESCI } \\ & 17 \text { - Dual } \end{aligned}$ | BIOL 1108, 1108L CHEM 1212, 1212L CHEM 2211, 2211L PHYS 1111, 1111L | EFND 2030 <br> EPSY 2020 <br> SPED 2000 or ESCI <br> 4060 <br> PHYS 1111, 1111L <br> PHYS 1112, 1112L | EPSY 2020 <br> EFND 2030 <br> SPED 2000 or ESCI 4060 <br> CHEM 1212, 1212L <br> CHEM 2211, 2211L <br> PHYS 1111, 1111L |
| PEDB - 1 | PEDB | PEDB | PEDB |
| Major <br> Requirements |  |  |  |
| $\begin{aligned} & \hline \text { Required } \\ & 34-48 \text { - BIOL } \\ & 53-\text { ESCI } \\ & 63-70-\text { Dual } \end{aligned}$ | Biology (20-30 hrs) <br> BCMB 3100 or 4010 <br> BIOL 3200 <br> BIOL 3300 or 3400 <br> BIOL 3500, 3500L or <br> 4600 <br> Choose one Organismal Biology course (3 to 5 hrs ) | Biology (28 hrs) <br> BIOL 1107, 1107L <br> BIOL 1108, 1108L <br> CHEM 2211, 2211L <br> BCMB 3100 <br> BIOL 3200 <br> BIOL 3300 or 3400 <br> BIOL 3500, 3500L <br> BIOL 4600 | Biology (39-51 hrs) <br> BIOL 1108, 1108L <br> BCMB 3100 or 4010 <br> BIOL 3200 <br> BIOL 3300 or 3400 <br> BIOL 3500, 3500L or <br> 4600 <br> Choose one <br> Organismal Biology <br> course (3 to 5 hrs ) |


|  | Laboratory: Choose Option I or II from Biology (3 to 10 hrs ) <br> BIOL Elective - (6-15 hrs) <br> If Lab. Option I was selected: 3 courses from Biology Major Elective list (minimum 3 hrs . each) If Lab. Option II was selected: 2 courses from Biology Major Elective list (minimum 3 hrs. each) <br> Other (14-18 hrs) PHYS 1112, 1112L PHIL or RELI or second fine art Foreign language (through $3^{\text {rd }}$ semester) CHEM 2212, 2212L or MATH 2210, 2210L or STAT 2000 | Technology (3 hrs) <br> ESCI 4480 or EDIT 2020 <br> Science Education <br> (22 hrs) <br> ESCI 3450 ( 1 hr ) <br> ESCI 4450 <br> ESCI 4460 <br> ESCI 5460 (9 hrs) <br> ESCI 5470 <br> ESCI 5480 | Laboratory: Choose Option I or II from Biology (3 to 10 hrs ) <br> BIOL Elective - (6-15 hrs) <br> If Lab. Option I was selected: 3 courses from Biology Major Elective list (minimum 3 hrs. each) If Lab. Option II was selected: 2 courses from Biology Major Elective list (minimum 3 hrs. each) <br> Other (12 hrs) <br> PHYS 1112, 1112L <br> CHEM 2212, 2212L or MATH 2210, 2210L Foreign language <br> Technology (3 hrs) ESCI 4480 or EDIT 2020 <br> Science Education (22 hrs) ESCI 3450 ( 1 hr ) <br> ESCI 4450 <br> ESCI 4460 <br> ESCI 5460 (9 hrs) <br> ESCI 5470 <br> ESCI 5480 |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Electives } \\ & \text { 3-19 - BIOL } \\ & 7 \text { - ESCI } \\ & \text { 3-10 - Dual } \end{aligned}$ | General (3-19 hrs) | Upper Division BIOL (3 hrs) Science or ESCI (4 hrs) | *Electives: (10 hours) |
| Total hours | 121 hrs | 121 hrs | 134-146 hrs |

*Electives must be used to satisfy Arts \& Sciences degree requirements:

- Two Foreign language courses
- Two Fine Arts/Philosophy/Religion courses
- One literature course


## Appendix D.

## Social Science Education and History Dual Degree Program

To graduate with these degrees, students must satisfy the Franklin College graduation and multicultural requirements.

|  | HIST A.B. | ESOC B.S.Ed. | Dual Program |
| :---: | :---: | :---: | :---: |
| Core Curriculum |  |  |  |
| Area A --- 9 | ENGL 1101 ENGL 1102 MATH 1101 | $\begin{aligned} & \hline \text { ENGL } 1101 \\ & \text { ENGL } 1102 \\ & \text { MATH } 1101 \\ & \hline \end{aligned}$ | ENGL 1101 ENGL 1102 MATH 1101 |
| Area B --- 4 | Electives | Electives | *Electives |
| Area C --- 6 | Electives in humanities \& fine arts | Electives in humanities \& fine arts | Foreign language Elective in fine arts |
| Area D --- 11 | Electives in math, science, technology | $\begin{array}{\|l\|} \hline \text { GEOG 1112, } \\ \text { 1112L } \\ \text { GEOG 1113, } \\ \text { 1113L } \\ \text { Elective in math, } \\ \text { etc. } \\ \hline \end{array}$ | $\begin{aligned} & \text { GEOG 1112, 1112L } \\ & \text { GEOG } 1113,1113 \mathrm{~L} \\ & \text { Elective in math, etc. } \end{aligned}$ |
| Area E --- 12 | Electives in social sciences | ANTH 1102 <br> HIST 2111 <br> HIST 2112 <br> POLS 1101 | ANTH 1102 <br> HIST 2111 <br> HIST 2112 <br> POLS 1101 |
| Area F --- 18 | Foreign language <br> For. Lang./humanities Elective humanities or social science <br> 3 history courses in different areas: North America, Latin America, Western Civilization, Africa, Asia, World History | EFND 2030 <br> EPSY 2020 <br> SPED 2000 <br> 3 courses from ECON 2105, ECON 2106, GEOG 1101, PSCY 1101, SOCI 1101 | Foreign language <br> Foreign language <br> Foreign language <br> EFND 2030 <br> EPSY 2020 <br> SPED 2000 <br> ECON 2105 or 2106 <br> 2 history courses in different areas, excluding North America: Latin America, Western Civilization, Africa, Asia, World History (include diversity \& non-West reqs.) |
| PEDB --- 1 | PEDB | PEDB | PEDB |
| Major Requirements |  |  |  |
| Required-24 | HIST 4990 <br> History geographic area courses (3 | $\begin{aligned} & \text { ESOC } 2450-2 \\ & \text { hours } \\ & \text { ESOC } 4350 \end{aligned}$ | HIST 4990 <br> History geographic area courses (3 |


|  | advanced courses from <br> different areas) <br> Major courses (4 <br> advanced courses) | ESOC 4360 <br> ESOC 4450-1 <br> hour <br> ESOC 5460 - 15 <br> hrs. <br> History courses (8 <br> advanced courses) | advanced courses from <br> different areas) <br> Major courses (4 <br> advanced courses) <br> ESOC 2450 - 2 hours <br> ESOC 4350 <br> ESOC 4360 <br> ESOC 4450L -1 hour <br> ESOC 5460 - 15 hrs. |
| :--- | :--- | :--- | :--- |
| General electives | 36 hours: 15 hours <br> upper division, 21 <br> hours any level | 12 hours: any <br> level | *7 hours |
| Total hours | 121 hours | 121 hours | $\mathbf{1 2 6}$ hours |

*Electives must be used to satisfy the Arts \& Sciences degree requirements:
1 Literature course
1 Biological science course
1 Fine Arts/Philosophy/Religion course

