

# Liberal Integrative Studies

Dr. Patricia Lust, *Director*

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## **Liberal Integrative Studies Major and Teacher Preparation Program**

Liberal Integrative Studies is a cross-disciplinary major for the generalist. Most students who choose Liberal Integrative Studies are planning to be elementary or middle school teachers, and the various tracks of this major prepare students for teaching licensure at one or both of those levels. The Liberal Integrative Studies major is also the foundation for the 5-year program in Special Education.

In addition to the multi-disciplinary General Education requirements, Liberal Integrative Studies students take advanced courses in English, Mathematics, Natural Science and Social Science. Some tracks include Fine Arts and Kinesiology. All the teacher-licensure tracks include an array of methods classes, Practicum, Partnership and Student Teaching.

A major in Liberal Integrative Studies cultivates a well-rounded, well-educated student who can face the world on a broad, solid footing. Students gain an understanding of and appreciation for continued, life-long learning - an essential component of being a successful teacher and leader. Longwood Liberal Integrative Studies graduates are highly sought after by Virginia public schools for teaching positions.

## **LIBERAL INTEGRATIVE STUDIES PROGRAM**

### **Faculty**

William P. Abrams, PhD, *Professor of Mathematics*

Susan Browder, MS, *Senior Lecturer in Mathematics*

Lee D. Millar Bidwell, PhD, *Professor of Sociology*

Mary Carver, PhD, *Assistant Professor of Political Science*

David J. Coles, PhD, *Professor of History*

Suzanne Donnelly, PhD, *Assistant Professor of Science Education*

Larissa Smith Ferguson, PhD, *Associate Professor of History*

Alix D. Dowling Fink, PhD, *Associate Professor of Biology*

Mark L. Fink, PhD, *Associate Professor of Biology,*

Joseph E. Garcia, PhD, *Professor of Geography and Earth Science*

William R. Harbour, PhD, *Associate Professor of Political Science*

David S. Hardin, PhD, *Associate Professor of Geography*

Timothy Holmstrom, PhD, *Assistant Professor of Physics*

Edward L. Kinman, PhD, *Professor of Geography*

Mary E. Lehman, PhD, *Professor of Biology*

Virginia Lewis, PhD, *Assistant Professor of Mathematics Education*

Patricia D. Lust, DM, *Professor of Music*

Christopher McGee, PhD, *Associate Professor of English*

Jason S. Milne, PhD, *Associate Professor of Sociology*

Jennifer Miskec, PhD, *Associate Professor of English*

Michelle Parry, PhD, *Associate Professor of Physics*

Leah Shilling-Traina, EdD, *Assistant Professor of Mathematics Education*

Robin Smith, PhD, *Assistant Professor of English*

Wendy Smith, PhD, *Assistant Professor of Mathematics Education*

Gena Southall, EdD, *Associate Professor of English*

Maria Timmerman, PhD, *Assistant Professor of Mathematics Education*

Deborah Welch, PhD, *Professor of History*

## **Liberal Integrative Studies Options**

Students pursuing the BS in ~~Liberal~~ Integrative Studies that includes a teacher licensure program will complete parts A-E. Students pursuing the BS or BA in ~~Liberal~~ Integrative Studies that does not include the teaching licensure program will complete parts A-D.

### **A. GENERAL EDUCATION – 38 credits**

- Goal #5. Math – 3 cr. - can be met with MATH121, which is required for the ~~LS~~ IS major. Middle School Math Concentrators are exempt from this goal by taking upper level math courses.
- Goal #8. Contemporary Society – 3 cr. – can be met with POSC150 that is required for the ~~LS~~ IS major.
- Goal #12. May be met with PHIL308, PHIL315 or PHIL316 – 3 cr.

Please see the General Education section of this catalog for options for the other Goals.

### **B. ADDITIONAL DEGREE REQUIREMENTS**

For students pursuing the BS in ~~Liberal~~ Integrative Studies, the Additional Degree Requirements are embedded in the core courses. For students pursuing the BA in ~~Liberal~~ Integrative Studies with a minor in an Arts and Sciences discipline, there is an additional requirement of Modern Language at the 202 level.

### **C. LIBERAL INTEGRATIVE STUDIES CORE COURSES – 38 credits (plus the six (6) credits counted in General Education)**

Two of the ~~Liberal~~ Integrative Studies core courses can be used to meet General Education Goals #5 and #8. Students may choose other courses to meet those General Education Goals, and in that case the number of credits required for the ~~LS~~ IS core increases by the respective number of credits.

#### **English/9 credits**

- |             |  |
|-------------|--|
| ENGL 382    | Grammar: Theory and Practice/3 cr.*  |
| ENGL 380    | Children's Literature/3 cr. (elementary)   |
| or ENGL 381 | Literature for Young Adults/3 cr. (middle)**   |
| ENGL 483    | Writing: Theory and Practice for the Elementary School/3 cr. (elementary)            |
| or ENGL 479 | Writing: Theory and Practice for the Middle and Secondary Classroom/3 cr. (middle)** |

#### **Math/9 credits (plus 3 credits counted in General Education)**

- |          |   |
|----------|---|
| MATH 121 | Functions and Graphs/3 cr.** (meets Goal #5 for <del>LSTE</del> INTE, <del>LSTS</del> INTS, <del>LSTM</del> INTM-non-Conc.) |
| MATH 309 | Numeration Systems/3 cr.  |
| MATH 310 | Probability, Statistics, and Programming/3 cr.**  |
| MATH 313 | Geometry and Reasoning/3 cr.**  |

#### **Natural Science/11 credits**

- |          |  |
|----------|--|
| BIOL 114 | Fundamentals of Life Science/4 cr.   |
| PHYS 103 | Conceptual Physics/4 credits** (does NOT count for Goal #6, except for Middle School non-concentrator) |
| EASC 300 | The Dynamic Planet/3 cr.**   |

#### **Social Science/9 credits (plus 3 credits counted in General Education)**

- |             |   |
|-------------|---|
| GEOG 310    | Thinking Geographically/3 cr. **                        |
| HIST 221    | US History Colonial-1877/3 cr.**                        |
| or HIST 222 | US History 1877-Modern Times /3 cr.**                   |
| HIST 370    | Virginia Studies/3 cr. **                               |
| POSC 150    | American Government and Politics/3 cr.* (meets Goal# 8) |

\* See NOTE under Middle School Non-concentration area.

\*\* Middle-School Track students are exempt from these courses in their areas of non-concentration.

### **D. LIBERAL INTEGRATIVE STUDIES MAJOR REQUIREMENTS**

**1. BS IN ~~LIBERAL~~ INTEGRATIVE STUDIES - Elementary School Licensure Program (~~LSTE~~ INTE) – 9 credits**

**Fine Arts/3 credits** (*Select one.*)

ART 448	Integrated Arts/Art/3 cr.
MUSC 448	Integrated Arts/Music/3 cr.
THEA 448	Integrated Arts/Theater/3 cr.

**Physical Education/3 credits**

KINS 389	Methods of Teaching Health and Physical Education for Elementary Classroom Teachers/3 cr.
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**Elective/3 credits**

Any Arts and Sciences course at the 300 or 400 level.

Suggested Courses:

SOCL 320	Sociology of Education/3 cr.
SCED 401	SOLstice: An interdisciplinary approach to the science and civic issues of our Chesapeake Bay/3 cr.
MATH/SCED 330	Integration of Mathematics and Science Principles/3 cr.
THEA 433	Creative Dramatics for the Classroom/3 cr.

or, one of the following:

ECON 115	Economics for Educators/3 cr.
CSDS 206	Introduction to Sign Language/3 cr. (by special permission of the chair of CSDS)
Foreign Language at the 202 level/3 credits	

**2. BS IN ~~LIBERAL~~ INTEGRATIVE STUDIES - Middle School Licensure Program (~~LSTM~~ INTM)- addition of 6-9 credits (number of credits includes trade off for exemptions in areas of non-concentration)**

**Concentrations:** Students must choose two areas below as concentrations:

**English**

ENGL 350	Linguistics and Language Learning/3 cr.
COMM 101	Public Speaking/3 cr.
ENGL 480	The Teaching of English/3 cr.

**Mathematics**

MATH 164	Precalculus/4 cr.
or MATH 262	Differential and Integral Calculus II/4 cr.
MATH 261	The Differential and Integral Calculus I/4 cr.
MATH 430	Mathematics in the Middle School/3 cr.
CMSC 121	Introduction to Computer Science/3 cr.
or CMSC 160	Introduction to Algorithmic Design I/3 cr.

NOTE: Math concentrator is exempt from Goal #5.

NOTE: Math concentrator may substitute MATH 335 for MATH313 in the core.

NOTE: Math concentrator will be eligible for an additional endorsement in Algebra by adding one course: MATH280 (Not a Longwood ~~Liberal~~-Integrative Studies major requirement.)

**Natural Science**

Students choosing the science concentration may substitute a major's introductory-level courses for a science courses in the ~~Liberal~~ Integrative Studies core. This will allow the student to meet certain prerequisites and to take more advanced courses in a particular discipline in science.

Allowed substitutions are:

*Substitute for BIOL 114 in the core:*

BIOL 121	The Unity of Life/4 cr. (as prerequisite for BIOL 122 and/or BIOL focus)
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*Substitute for PHYS 103 in the core:*

PHYS 101	General Physics I/4 cr. (as prerequisite for PHYS 102 – NOT PHYS focus)
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or PHYS 201 University Physics I/4 cr. (as prerequisite for PHYS 202 and/or PHYS focus)

Requirements:

CHEM 101 General Chemistry(does not double count for Goal #6)/4 cr.

or CHEM 111 Fundamentals of Chemistry I/4 cr. \* (as prerequisite for CHEM 112 and/or CHEM focus)

***Electives in Natural Science/ 6-8cr.\*(two individual courses or one focus area)***

EASC/GEOG 275 Introduction to Geographic Information Systems/4 cr.

EASC 363 Physical Oceanography/4 cr.

BIOL 445 Tropical Ecology/4 cr.

BIOL 206 Human Anatomy and Physiology I/4 cr.

BIOL 207 Human Anatomy and Physiology II/4 cr. (prerequisite BIOL 206)

BIOL./EASC 342 Terrestrial Biogeography/4 cr.

BIOL 443 Field Botany/6 cr.

EASC 261 Meteorology/4 cr.

EASC 353 Geography of Virginia/3 cr.

EASC 345 Hydrology/3 cr.

EASC 355 Climatology/3 cr.

EASC 358 Map Design and Analysis/4 cr. (permission) – offered infrequently

EASC 410 Geomorphology/3 cr.

CHEM 112 Fundamentals of Chemistry II/4 cr. (with CHEM 111 instead of CHEM 101)

PHYS 102 General Physics II/4 cr. (with PHYS 101 instead of PHYS 103)

PHYS 202 University Physics/4 cr. (with PHYS 201 instead of PHYS 103)

SCED 330/MATH 330 Integration of Mathematics and Science Principles/3 cr.

SCED 352 Science for Secondary Teachers/3 cr.

SCED 401 SOLstice: An interdisciplinary approach to the science and civic issues of our Chesapeake Bay/3 cr.

*Biology Focus:*

BIOL 122 The Diversity of Life/4 cr. (required for biology focus)

One of the following:

BIOL 341 General Ecology/4 cr.

Any BIOL class listed in the electives above

*Chemistry Focus:*

CHEM 112 Fundamentals of Chemistry II/4 cr. (required for Chemistry focus)

One of the following:

CHEM 270 Inorganic Chemistry & Qualitative Inorganic Analysis/3 cr.

CHEM 305 Organic Chemistry I. – 3 cr.

CHEM 324 Thermodynamics/3 cr. (math/sci. conc. with MATH 262)

CHEM 350 Quantitative Analysis/4 cr.

*Physics Focus:*

PHYS 202 University Physics II/4 cr. (for math/sci. conc. with MATH 262)  
(required for the Physics focus)

One of the following:

PHYS 303 Astrophysics/4 cr. (math/sci. conc. with MATH 262)

PHYS 321 Modern Physics/3 cr. (for math/sci. conc.)

PHYS 324 Thermodynamics./3 cr. (for math/sci. conc. with MATH 262)

PHYS 326 Optics/4 cr. (for math/sci. conc.)

PHYS 331 AC/DC Circuits/4 cr. (for math/sci. conc.)

PHYS 342 Electronics and Circuit Theory/ 4 cr. (for math/sci. conc.)

PHYS 252 Statics/3 cr. (for math/sci. conc.)

\* NOTE: Science concentrators may choose either 6-8 credits of electives on the first part of the list or 6-8 credits from one of the area focus areas on the last part of the list along with the appropriate substitution of a core course.

**Social Science**

HIST 100 or HIST 110 (the one not taken to meet Goal #7)/3 cr.

HIST 221 US History Colonial-1877/3 cr.\*\*  
or HIST 222 US History 1877-Modern Times /3 cr.\*\*  
(the one not taken as part of the core. Both courses are required for licensure)

Elective in Social Science elective/3 cr.

SOCL 320 Sociology of Education/3 cr.  
ANTH 101 Introduction to Anthropology/ 3 cr. (will not double count for Goal #9)  
ANTH/SOCL 325 Gender and Society/ 3 cr.  
HIST 320 African American History/3 cr.  
POSC 343 American Foreign Policy/3 cr.  
POSC 350 The American Presidency/3 cr.  
SOCL 302 Sociology of Popular Culture/3 cr.  
ECON 111 Contemporary Issues and Social Policy/3 cr.  
or ECON 115 Economics for Educators/3 cr.

**Non-concentration:** In the two areas of non-concentration, students are exempt from core courses (Part C) marked with a double asterisk (\*\*).

**NOTE:** English non-concentrator may substitute ENGL 350 for ENGL 382 in the Core.

**NOTE:** Social Science non-concentrator may substitute HIST 221 or HIST 222 for POSC 150 (for a total of two of the three courses.)

**3. BS IN ~~LIBERAL~~ INTEGRATIVE STUDIES - Elementary and Middle School Licensure Program (~~LSTB~~ INTB)** – additional 15-18 credits

Students seeking licensure in both elementary and middle school must meet all the requirements in the ~~Liberal~~ Integrative Studies core (Part C above) and the elementary track requirements (Part D) plus one middle school concentrations (Part D) with the following exception:

Students may choose ENGL 483 or ENGL 479 (only one required)

**NOTE:** both ENGL 380 and ENGL 381 are required.

**NOTE:** Students on the LSTB track are exempt from taking ENGL 480.

**NOTE:** For the MS English concentrator, ENGL from the elementary track may double count as the required ENGL elective.

**4. BS IN ~~LIBERAL~~ INTEGRATIVE STUDIES - Special Education K-12 Licensure Program (~~LSTS~~ INTS)** – additional 9 credits

Liberal Studies major requirements are the same as for the Elementary School track (above).

**5. BS or BA IN ~~LIBERAL~~ INTEGRATIVE STUDIES (~~LSTU~~ INTG)** – additional 44 credits  
(This degree does not lead to licensure.)

Foreign Language at the 202 level/3 cr. (required only for the BA degree)

Minor in an Arts and Sciences discipline or in Economics/18-24 cr.

~~LSTU~~ INTG 300 Interdisciplinary Studies/3 cr.

~~LSTU~~ INTG 461 Senior Seminar/Directed Study/3 cr. (meets General Education Goal #14)

Students on this track may make the following substitutions:

For ENGL 380/381 (3 credits)

Any 300 or 400 level literature class

For ENGL 483/479 (3 credits)

ENGL 479. Professional Writing

Any 300 level writing course

Electives/11-17 cr. - to reach 120 credits required for graduation

**E. PROFESSIONAL EDUCATION/ REQUIREMENTS – Required for Teaching Licensure – 40 credits (45 credits for elementary and middle school)**

**1. All Licensure Programs**

EDUC 245 Human Growth and Development/3 cr.

## 2. Elementary and Middle School Tracks

EDUC 260	Introduction to the Teaching Profession/2 cr.
EDUC 270	Practicum I/1 cr.
EDUC 310	Foundations of Literacy Instruction/3 cr.
EDUC 370	Practicum II/3 cr.
EDUC 380	Classroom Assessment/2 cr.

### *Partnership Semester*

EDUC 440	Field Experience in Literacy Instruction/1 cr.
EDUC 441	Elementary School Literacy Instruction/3 cr. *
or EDUC 442	Middle School Literacy Instruction/3 cr. *
EDUC 450	Principles of Instruction (K-8)/2 cr.
EDUC 451	Curriculum in the Elementary School (K-6)/2 cr. *
or EDUC 452	Curriculum in the Middle School (6-8)/2 cr. *
kEDUC 487	Classroom Management and Systems Issues/3 cr.
SPED 489	Survey of Exceptional Children/3 cr.

### *Student Teaching Semester*

EDUC 401	Elementary Directed Teaching/12 cr.
or EDUC 405	Middle Directed Teaching/12 cr.
or EDUC 400	Elementary and Middle Directed Teaching/12 cr.

\* Both courses are required for elementary and middle school licensure programs. Partnership placement may be arranged for either elementary or middle.

## 3. Special Education Track

SPED 202	Introduction to Special Education/3 cr.
SPED 305	Behavior Management/3 cr.
SPED 375	Language and Language Disorders/3 cr.
CSDS/SPED 411	Assistive Technology and Augmentative Communication in the General Curriculum/3 cr.
SPED 321	Reading and Language Arts for students with Exceptional Needs/3 cr. *
SPED 322	Mathematics, Science and Social Studies Adaptations for Students with Exceptional Needs/3 cr.
SPED 323	Practicum in Reading Assessment and Tutoring/2 cr. *
SPED 325	Introduction to Assessment/3 cr. *
SPED 327	Practicum II/3 cr.

\* SPED 321, 323, 325 must be taken concurrently

### *Student Teaching Semester*

EDUC 406	Directed Teaching for Students with Special Needs/12 cr. **
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\*\*NOTE: Passing scores on Praxis II, VCLA and VRA are required prior to beginning EDUC 400, EDUC 401, EDUC 405 or EDUC 406. These exams are required for licensure in Virginia.

## F. Total Credits

BS in <del>Liberal</del> Integrative Studies – Elementary School Licensure Program –124
BS in <del>Liberal</del> Integrative Studies – Middle School Licensure Program –121-124
BS in <del>Liberal</del> Integrative Studies – Elementary and Middle School Licensure Program – 135-138
BS in <del>Liberal</del> Integrative Studies – Special Education Licensure Program (K-12) –125
BS or BA in <del>Liberal</del> Integrative Studies (no licensure) – 120

## **LIBERAL INTEGRATIVE STUDIES COURSE DESCRIPTIONS**

**LSTU INTG 300.** *Interdisciplinary Studies.* Essentials of interdisciplinary study, including basic concepts and methodological tools, to synthesize material from disparate fields and apply them to academic plans and career goals.

Prerequisites: Junior standing, ~~Liberal Integrative~~ Studies major or permission of the Director of ~~Liberal Integrative~~ Studies. 3 credits.

**LSTU INTG 461.** *Senior Seminar/Directed Study.* Student exposition of coursework demonstrating the understanding of interdisciplinary approaches and the successful synthesis of interdisciplinary studies, applied to the minor course of study and academic/career goals. Prerequisites: At least a C in ~~LSTU~~ INTG 300 and a preliminary project proposal signed by an academic supervisor. 3 credits. WR SP