Interdisciplinary Science Worksheet for the MAJOR - 2020-21

Lang’s General Degree Requirements
In addition to the requirements outlined in this program worksheet, Lang has specific general requirements, including a minimum number of credits in liberal arts courses as well as college residency requirements. All students should read Lang’s General Degree Requirements at the Lang website and consult with both their Student Success advisor and their Departmental Faculty Advisor each semester to ensure they are on track to graduate.

Degree Works
To be sure your Degree Works account reflects the same information in this worksheet, students should forward any approved exceptions of the following requirements to their Student Success advisor.

STUDENT NAME: ___________________ NEW SCHOOL ID: _______________ DEGREE: ☐ BA ☐ BA/BFA ☐ BA/MA

As of fall 2020, students declaring the major in Interdisciplinary Science must take twelve (12) courses, outlined as follows. Students who have declared the major in Interdisciplinary Science prior to fall 2020 but wish to follow the fall 2020 curriculum may consult their Student Success Advisor about submitting a Change of Catalog Year request.

Students who choose to major in IS should consider the ways in which their academic and experiential work lead to a focus in environmental health, public or planetary health, climate change, science education, or other areas of interest. See the sample curricular path on p. 3.

Declare your major by following the process outlined in the Natural Sciences and Mathematics Department’s Interdisciplinary Science Major/Minor Statement Guide and also Student Success’s document, Declaring a Major. Upon declaring the Major/Minor, student should review the guidelines for writing a Major/Minor statement and submit a statement outlining their goals for the academic course of study. This statement should be submitted to their faculty advisor in the department and be revisited and revised each year with this advisor.

More advising documents are available in the shared google drive: bit.ly/LangISResources, and students can visit the IS Advising and Resources page at Lang’s website for information about identifying and selecting courses that meet the requirements. Students must earn a grade of C or higher in all courses to meet the requirements for the major in Interdisciplinary Science.

INTRODUCTORY COURSES - 6 courses total (18-24 credits):

1. ☐ LSCI 2040 Genes, Environ. & Behavior (spring) Semester/Year to be Completed_______ Advisor’s initials ______

2. ☐ LMTL 2155 Math Models in Nature (fall) Semester ________ Adv. initials ______

3. ☐ LSCI 2500 Chemistry of the Environment (fall) Semester ________ Adv. initials ______

4. ☐ LSCI 2661 Energy and Sustainability (spring) Semester ________ Adv. initials ______

5. ☐ LSCI 2320 Microbial Ecologies (fall) Semester ________ Adv. initials ______

Choose one (1) introductory science elective from the courses below
• LSCI 2300 Urban Environmental Health
• or LSCI 2840 Science and Politics of Infectious Diseases
• or LSCI 2060 Stem Cells and Social Justice

6. ☐ ____________________________ Semester ________ Adv. initials ______
   (LSCI Introductory elective)

continued . . .
OTHER REQUIRED COURSES - 5 courses total (16-22 credits):

Choose one (1) Mathematics course. Consult with the Departmental Faculty Advisor:

- LMTH 2040 Calculus I (spring/fall)
- or LMTH 2045 Calculus II (spring/fall)
- or LMTH 2030 Statistics with SPSS (spring/fall)
- or LMTH 2014 Quantitative Reasoning II: Research

7. □ ___________________________ Semester ________ Adv. initials ________
   (LMTH Mathematics course)

Choose one (1) Laboratory Science course from the courses below. All have prerequisite:

- LSCI 3030 Biodiversity Achieved Lab (6 cr.; prerequisite: LSCI 2040; Alternate years in fall)
- or LSCI 3029 Water Quality Lab (4 cr.; prerequisite: LSCI 2500; Alternate years in spring)
- or LSCI 3055 Microbiome of Urban Spaces (4 cr.; prerequisite: LSCI 2040 or LSCI 2320; in spring)

8. □ ___________________________ Semester ________ Adv. initials ________
   (LSCI Lab Science course)

Choose two (2) Intermediate/Advanced courses from the courses below. All have prerequisites; offered alternate years:

- LSCI 3031 Chemistry of the Atmosphere
- or LSCI 3400 Genomes, Populations, & Identities
- or LSCI 3030 Biodiversity Achieved Lab
- or LSCI 3427 Evolution, Mutation, Computation
- or LSCI 4050 Science and Politics of Cancer
- or other 3000-level LSCI or LMTH courses that have prerequisites

9. □ ___________________________ Semester ________ Adv. initials ________
   (LSCI Intermediate/Advanced course)

10. □ ___________________________ Semester ________ Adv. initials ________
    (LSCI Intermediate/Advanced course)

One (1) additional Science or Mathematics elective. This must be chosen in consultation with the Departmental Faculty Advisor. NOTE: The following courses do not satisfy this requirement: Quantitative Reasoning I, Pre-Calculus, and Statistics for Social Scientists.

11. □ ___________________________ Semester ________ Adv. initials ________
    (Science or Mathematics elective)

SENIOR CAPSTONE (3-4 Credits):
Choose one Interdisciplinary Science Capstone, chosen in coordination with the Departmental Faculty Advisor:

- LSCI 4900 IS Capstone: Planetary Health
- or LSCI 4050 Science and Politics of Cancer

☐ ___________________________ Semester ________ Adv. initials ________
   (Interdisciplinary Science Capstone)

☐ INTERNSHIP/RESEARCH (recommended): __________________________ Semester ________ Adv. initials ________
   (internship title)

☐ SCIENCE FELLOWSHIP (optional; merit-based): __________________________ Semester ________ Adv. initials ________
   (fellowship title)

TOTAL INTERDISCIPLINARY SCIENCE CREDITS (37-50)

_____________________________  ______________________________
STUDENT SUCCESS ADVISOR’S SIGNATURE  DATE
Sample Interdisciplinary Science Course Menu

The template below is not written in stone, but rather suggests a useful sequence in which to complete the requirements for this program. Students declare their major at various points, but we recommend that when you declare, you review this chart, submit a MAJORS/MINOR statement, and schedule an advising appointment with the Departmental Faculty Advisor of the Interdisciplinary Science Program so that advising can be personalized and appropriate to your interests and post-graduate plans.

Note: that because students’ schedules vary, the highlighted courses below are more than the 12 required as some students will complete them earlier and others in later semesters, but we do advise that all 2000 level course be taken early on if possible.

<table>
<thead>
<tr>
<th>Year</th>
<th>FALL</th>
<th>SPRING</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>IS First Year Seminar or Course</td>
<td>IS Introductory Elective</td>
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<tr>
<td></td>
<td>Writing 1 Course</td>
<td>Energy and Sustainability</td>
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<td></td>
<td></td>
<td>Writing 2 Course</td>
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<tr>
<td>Year 2</td>
<td>Chemistry of the Environment or Microbial Ecologies</td>
<td>Genes Environment and Behavior</td>
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<td></td>
<td>IS Foundation course (Urban Env. Health)</td>
<td>Mathematical Models in Nature</td>
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<td></td>
<td>University Lecture Course ((Un)Fair Representation is an IS Elective)</td>
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<tr>
<td>Year 3</td>
<td>Chemistry of the Environment or Microbial Ecologies</td>
<td>IS Intermediate Course (Evolution) or Lab course</td>
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<td></td>
<td>IS Intermediate Course (Chem of Atm) or Lab Course (Biodiversity Achieved)</td>
<td>Microbiome</td>
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<td>Second Math Course</td>
<td>University Lecture Course</td>
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<td></td>
<td>IS Internship</td>
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<tr>
<td>Year 4</td>
<td>IS Intermediate Course</td>
<td>IS Capstone</td>
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<td></td>
<td></td>
<td>IS Advanced Elective (optional)</td>
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