MS Student Handbook
2019 – 2020 Academic Year
This handbook has been created to ensure EHS students are familiar with Department and School procedures and protocol.

Our Department website is also an important source for the latest department information. Students should also refer to the official School handbook.

Questions should be directed to Nina Kulacki or Dr. Greg Freyer.

For a detailed academic calendar for 2019-20, please see the Mailman Academic Calendar.

Academic Honesty & Honor Code: All candidates are expected to adhere to the required standards for academic and scientific integrity, which can be found in the GSAS statement on Academic Honesty.
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ADVISING AND ADMINISTRATIVE RESOURCES

Faculty Advisor

Each student is assigned an EHS faculty advisor at or before Orientation. Students are expected to meet with their advisor at least once per semester to review their course plan prior to the end of the add/drop period. It is important for students to be proactive in scheduling these meetings and checking in with their advisor periodically. If students elect to complete a Thesis (note: a Thesis is optional, but can be completed in addition to the required Capstone course.), they must contact their advisor to discuss the details prior to registering for the Master’s Essay course and they must meet the Thesis deadlines on page 28.

Regardless of one’s assigned faculty advisor, students are welcomed and encouraged to meet with any faculty member in the Department and with Nina Kulacki. Questions or requests to change an assigned faculty advisor should be directed to Ms. Kulacki.

Academic Programs Office in EHS

The Faculty Director, Dr. Greg Freyer, and the Academic Director of Academic Programs, Nina Kulacki, are the primary points of contact in the Department for administrative issues related to the academic program.

The Faculty Director and Academic Director implement policies established by the Columbia University Mailman School of Public Health (CUMSPH) and by the Department of Environmental Health Sciences (EHS). They can provide information about the curriculum, required and elective courses, and other administrative processes.
Teaching Assistant (TA) Opportunities for EHS Department-based Courses

Any full-time EHS student may request to be a TA for an EHS course by contacting Nina Kulacki. Typically, TA assignments are made by August for the upcoming academic year. Please note: Students in their first semester are not eligible to TA.

Requirements:
- Must be registered as a full-time student
- Must participate in the appropriate CourseWorks/Canvas training session(s)
- Priority is given to students who have already taken the course they wish to TA and received an A or A+.
- TA’s must be able to devote up to 20 hours per week to the TA-ship. This may include, but is not limited to:
  - Time spent in class (students should be willing and able to sit in the course for the duration of the semester).
  - Time spent outside of class for: scheduled office hours, grading, and preparation of teaching materials (which might also include time prior to the semester in which the course is scheduled).
    - Note: All students must be available to hold office hours outside of the regular course meeting time if this is required for the course. Use of the EHS TA office space should be scheduled with Nina Kulacki.

Compensation:
- TA compensation for the 2019-20 academic year is $4,000 for a full TA position and $2,000 for a ½ TA position.

To request a TA position:
- Email Nina Kulacki with the details of the requested course and semester offering.
- Nina Kulacki will confirm all TA appointments via email. Students will be directed to the EHS Business Office to fill out the proper payroll documents prior to the semester in which they will serve as a TA.

Other TA opportunities in the School
There are also School-wide TA opportunities available in the Core courses. These TA positions are managed by the Office of Educational Programs. All students will receive notification of these opportunities through School-wide emails. Please contact Lauren Westley for more information.
EHS MS Degree Requirements

- EHS Departmental core course requirements
- Program coursework
- Practicum requirement
- Thesis requirement
- Required participation in:
  - All master’s student meetings (Typically once per semester)
  - Casual Conversations attendance (Year 1: Semester 1 and first half of Semester 2) (full-time students)
  - Practicum experience presentation (Year 2: Fall semester) (those who complete prior to fall are exempt)
  - EHS Speed Networking event (Spring semester)
  - EHS Alumni Panel (Spring semester)

Core Curriculum (School-wide)

For more information on the School Core, use this link.

EHS Departmental Course Requirements

All EHS students, regardless of Certificate selection, are required to take the following core classes associated with the field of Environmental Health Sciences:

- P8322 – Environmental Determinants of Human Health II
- P8325 – Risk Assessment and Communication
- P6360 – Analysis of Environmental Health Data

One of the two following Toxicology courses:
- P6320 – Fundamentals of Toxicology for Health-related Disciplines
  Or
- P9312 Principles of Toxicology (required for students in the Toxicology Certificate but other students can opt to take this instead of Fundamentals) …..

- P9300 – Capstone: Critical Thinking and Analysis in Environmental Health Sciences

Practicum Requirement

MS students are required to complete a practical experience requirement (practicum). This requirement takes the form of a practicum completed during the summer between the first and second year. However, some students request approval to fulfill this requirement during the school year. The range of completed hours must fall between 150 – 300 hours total. The practicum may take a variety of forms, depending on the student’s area of interest such as: participation in an ongoing research or evaluation project, working with a government agency, or working in a community-based organization.

MS students must meet all of the following practical experience requirements in order to graduate:
• Obtain approval from a faculty advisor prior to accepting a position
• Submission of a Scope of Work form (contact Nina Kulacki for this information)
• Formal presentation of practicum experience to the Department (this takes place in Fall of year 2 – full-time students who complete the program prior to fall are exempt).

**EHS Practicum Competencies**

The EHS practicum experience should meet *one or more of* the following competencies:

- Apply the principles of exposure assessment to evaluate human exposures to environmental and occupational hazards.
- Apply and synthesize content learned through coursework in environmental health sciences that can be applied to practice in a professional setting.
- Demonstrate an understanding of the complexities of the EHS field and how major stakeholders collaborate with the goal of informing public and private constituency groups of environmental outcomes.
- Involve a topic that is relevant to EHS such as exposure assessment, climate change, environmental policy or toxicology. They can include laboratory studies, field studies, data analysis or study design. The practicum can take place in academia, a government agency, private companies or non-government agencies.
- Identify biological mechanisms whereby environmental and/or occupational agents adversely affect human health.
- Identify factors that affect susceptibility to adverse human health effects of environmental and/or occupational agents.
- Recommend interventions for reducing human exposures to environmental and occupational hazards.
- Communicate effectively, in writing and orally, knowledge of environmental hazards to other professionals and the public, including effective risk communication.
- Knowledge within the area of Molecular Epidemiology, Toxicology, Occupational Health, Industrial Hygiene, Climate Change or Environmental Policy.

**Practicum experience presentation**

Students are required to give a presentation about their practicum at a session (date TBD in the Fall of Year 2). This session is an opportunity to share the details of each student’s practicum and what they learned. This also serves as an opportunity for first year students to learn about the practicum experience. Faculty, staff, and students from EHS, as well as practicum supervisors, will be invited to attend this presentation. MS students who are full-time and complete the program prior to fall are exempt.
Additional EHS Program Requirements

Attendance at Casual Conversation and Seminars, Professional Development and Other Required Student Meetings

Every Wednesday from 11:30a – 1p, all first year students in EHS meet for Casual Conversations (Year 1 both in Semesters 1 and 2). This is a seminar/discussion function that offers students an opportunity to interact with faculty members and current students in EHS. Additionally, these meetings are used for training in professional development, career development, and networking. Attendance is taken each week. All first year students must attend at least 3 of these meetings per month. If it is necessary to miss a seminar, the student must email Nina Kulacki prior to that date.
**Thesis Requirement**

All EHS MS students are required to complete a thesis. This can be related to the work done as a part of the practicum. Please meet with Dr. Freyer and Nina Kulacki to discuss the details of this experience.

*Course details:*
*P9361 Research Master's Thesis I in Environmental Health Sciences and P9362 Research Master's Thesis II in Environmental Health Sciences*

Guideline for the written thesis is given in the table below.

<table>
<thead>
<tr>
<th>Section</th>
<th>Content</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>• A hypothesis should be included in the abstract section that states the problem and results from the study</td>
<td>1 – 2 pages</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>• Include major sections and subsections</td>
<td>1 page</td>
</tr>
<tr>
<td>Introduction</td>
<td>• A review of current relevant literature</td>
<td>10 – 15 pages</td>
</tr>
<tr>
<td>Methods</td>
<td>• A detailed description of methods used in the study</td>
<td>5 – 8 pages</td>
</tr>
<tr>
<td>Results</td>
<td>• This reveals relevant data generated from the study</td>
<td>10 – 15 pages</td>
</tr>
<tr>
<td>Discussion</td>
<td>• A discussion of how the data supports or contradicts the stated hypothesis and future directions</td>
<td>5 – 10 pages</td>
</tr>
</tbody>
</table>
GRADUATION PROCEDURES

In order to receive the MS degree, students must:

- Schedule a meeting with Nina Kulacki to review their transcript in detail.
- Submit an application using the link that is directly emailed to them from OSA in the Spring semester.

Form submission deadlines are:

<table>
<thead>
<tr>
<th>Month</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 1</td>
<td>for October</td>
</tr>
<tr>
<td>December 1</td>
<td>for February</td>
</tr>
<tr>
<td>February 1</td>
<td>for May</td>
</tr>
</tbody>
</table>

The Mailman School of Public Health convenes one commencement ceremony annually. All graduates from that academic year are invited to participate in the May ceremony. However, only those students who have fully completed all degree requirements may march at graduation.

If a student submits an application for graduation but does not meet degree requirements in time, they cannot reapply for graduation until all requirements are fully completed and grades recorded. In this case, the student should request a meeting with Nina to review and confirm the plans for successful program completion.

ALUMNI INFORMATION

Contact with the Department:

Upon completion of the program, students should provide the following information to Nina Kulacki:

- Forwarding US mailing address
- Forwarding (non-Columbia) email address
- Details of next position (if known)

Important information about your Columbia email address upon graduation:

Upon graduation, email addresses are slated for termination. If students would like to continue using their Columbia email address after graduation, they should submit a request using this link.
# Course Requirements/Schedule – MS Tox

<table>
<thead>
<tr>
<th>Semester</th>
<th>Department</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>Department</td>
<td>P8312</td>
<td>PRINCIPLES OF TOXICOLOGY</td>
<td>3</td>
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<tr>
<td>Fall</td>
<td>Department</td>
<td>P8325</td>
<td>RISK, ASSESSMENT, COMM/MG</td>
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<tr>
<td>Fall</td>
<td>Department</td>
<td>P8306</td>
<td>OCCUPATIONAL AND ENVIRONM</td>
<td>3</td>
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<tr>
<td>Fall</td>
<td>Department</td>
<td>P8323</td>
<td>LAB METHODS IN EHS</td>
<td>3</td>
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<tr>
<td>Fall</td>
<td>Department</td>
<td>P8307</td>
<td>MOLECULAR EPIDEMIOLOGY</td>
<td>3</td>
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<tr>
<td>Fall</td>
<td>Department</td>
<td>P6300</td>
<td>ENVIRONMENTAL HEALTH SCIENCES</td>
<td>3</td>
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<tr>
<td><strong>Spring</strong></td>
<td>Department</td>
<td>P6360</td>
<td>ANALYSIS OF ENVIRONMENTAL</td>
<td>3</td>
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<tr>
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<td>Department</td>
<td>P8313</td>
<td>TOXICOKINETICS</td>
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<td>Spring</td>
<td>Department</td>
<td>P8334</td>
<td>COMPUTATIONAL TOXICOLOGY</td>
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<tr>
<td>Spring</td>
<td>Department</td>
<td>P6370</td>
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<tr>
<td>Spring</td>
<td>Department</td>
<td>TBD</td>
<td>COURSE NUMBER</td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td>Department</td>
<td>P8320</td>
<td>APPLD ENVRTL &amp; INDUST HY</td>
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<tr>
<td>Spring</td>
<td>Department</td>
<td>P8308</td>
<td>MOLECULAR TOXICOLOGY</td>
<td>3</td>
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<tr>
<td>Selective</td>
<td>Department</td>
<td>P8371 or P8332</td>
<td>GIS or ADVANCED GIS</td>
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</tr>
<tr>
<td><strong>Summer</strong></td>
<td>Department</td>
<td>P9361</td>
<td>MASTER'S THESIS</td>
<td>2.5</td>
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<tr>
<td>Summer</td>
<td>Department</td>
<td>P9303</td>
<td>APPLIED PH SCIENCE</td>
<td>3</td>
</tr>
</tbody>
</table>

**Semester Total 16.5**

**Semester Total 18**

**Summer**

**Semester Total 5.5**

**Total Program Credits**

40

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