

# Course Syllabus

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## ENV H 591 – Current Topics in Toxicology

### DRAFT COURSE SYLLABUS

Winter Quarter, 2018 - Thursdays 1:30-3:20 in HSB RR134

Instructor: Dr. Terry Kavanagh; 206-685-8479 ([tjkav@uw.edu](mailto:tjkav@uw.edu) (<mailto:tjkav@u.washington.edu>))

Appointments with Dr. Kavanagh by arrangement.

### 2 Credits, graded

**Course Description:** Critical reading, presentation, and writing up critiques of selected basic research publications in Toxicology and related Health Sciences fields. Constructive feedback will be provided on both presentations and written critiques.

The readings will reflect a variety of research topics, focusing on major current developments in Toxicology and Health Sciences.

The first class will be an introduction to the field, and involve instruction on critical reading of scientific papers, how to prepare a presentation, style of presentation, and key elements of good scientific writing. Students will then read and critically review selected articles every week. Each student is expected to present 2 times, and to provide one written critique of the chosen research article (for a total of 3 assignments). Each student will also participate in a group effort to construct a Poster on a selected current topic in toxicology. These posters will be presented at the end of the course. Students are also expected to participate in group-discussions and provide constructive comments and feedback on fellow students' presentations and poster presentations.

**Learning Objectives:** At the end of this course, the student will be able to

- 1) Demonstrate skills in reading scientific literature in the field of Toxicology and related Health Sciences disciplines
- 2) Critically evaluate scientific literature in the field of Toxicology and related Health Sciences disciplines
- 3) Integrate different research areas in the field of Toxicology and related Health Sciences disciplines
- 4) Demonstrate critical thinking skills regarding both the content of scientific readings and the larger context

in which they exist.

- 5) Demonstrate an ability to effectively deliver an oral and computer-based presentation (e.g. PowerPoint) summary of toxicology research articles, and understand the principles of original writing and how to avoid plagiarism
- 6) Demonstrate an ability to write a critical review of research articles in the field of Toxicology and the related Health Sciences.
- 7) Demonstrate the ability to participate in small group discussions.
- 8) Demonstrate skills in constructive criticism of peer presentations and fellow students' written critiques
- 9) Understand and evaluate professional journal articles in the toxicological sciences
- 10) Define the factors underlying high quality toxicology research articles

### **Course Requirements:**

- 1) Attend class sessions every week.
- 2) Read and critique the selected readings before the assigned class sessions.
- 3) Participate in class discussions.
- 4) Present a research article on 2 separate occasions.
- 5) Provide a written critique of a selected research article.
- 6) Provide constructive feedback for fellow students on their presentations/posters.

### **Grading:**

	<b>Points</b>
Presentation of research articles (2 times; 30 points each)	60 pts
Written critique of a research article	30 pts
<u>Participating in class discussions/feedback</u>	<u>10 pts</u>
Total	100 pts

Grading of individual presentations of research articles will be based on student peer scoring (1/3) and Instructor's scoring (2/3). For example, for each research article presented, the best score is 30 points, of which the instructor will give a score of 0-20 (20 being the best) and peers will give a score of 0-10 (10 being the best). The written critique will be of one of the articles that the student presents, with the expectation

that this will be between 5 – 10 pages (double spaced) long, and will cover the introduction, methods, interpretation of results and overall conclusions.

**Readings:** No required text. Articles will be selected by students in consultation with the instructor and posted by the instructor on the course Canvas website.

### **The University of Washington and Academic Integrity:**

Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). We expect you to know and follow the university's policies on cheating and plagiarism, and the [SPH Academic Integrity Policy](http://sph.washington.edu/students/academicintegrity/) (<http://sph.washington.edu/students/academicintegrity/>). Any suspected cases of academic misconduct will be handled according to University of Washington regulations. For more information, see the University of Washington Community Standards and Student Conduct website.

### **University of Washington general policy statement:**

“Admission to the University carries with it the presumption that students will conduct themselves as responsible members of the academic community. As a condition of enrollment, all students assume responsibility to observe standards of conduct that will contribute to the pursuit of academic goals and to the welfare of the academic community. That responsibility includes, but is not limited to: practicing high standards of academic and professional honesty and integrity.” [Reference: WAC 478-120-020 Standards of Conduct (2a),<http://www.washington.edu/students/handbook/conduct.html#020>]

For web-resources on understanding and avoiding plagiarism, go to:

<http://courses.washington.edu/hsstudev/studev/plagiarism.htm>

(<http://courses.washington.edu/hsstudev/studev/plagiarism.htm>)

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### **Access and Accommodations:**

Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or [uwdrs@uw.edu](mailto:uwdrs@uw.edu) (<mailto:uwdrs@uw.edu>) or [disability.uw.edu](http://depts.washington.edu/uwdrs/). (<http://depts.washington.edu/uwdrs/>) DRS offers resources

and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

**Commitment to multicultural inclusion:**

The UW School of Public Health seeks to ensure all students are fully included in each course. We strive to create an environment that reflects community and mutual caring. We encourage students with concerns about classroom climate to talk to your instructor, your advisor, a member of the departmental or SPH Diversity Committee and/or the program director. [DCinfo@uw.edu \(mailto:DCinfo@uw.edu\)](mailto:DCinfo@uw.edu) is a resource for students with classroom climate concerns.

**DRAFT Presentation Schedule (subject to revision):**

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<b><u>Date</u></b>	<b><u>Suggested Topic</u></b>	<b><u>Presentors (TBD)</u></b>
01/4/16	Introduction to the class /Selection of Topics	Kavanagh
01/11/16	N-methylpyrrolidone	Dempsey, Hendrix
01/18/16	Endocrine Disrupting Chemicals	Lee, Matsushita
01/25/16	Cd & Deoxynivalenol Interactions; AgNPs in Mice	Steichen, Kavanagh
02/01/16	Triclosan	Tamaro, Dempsey

02/08/16	TBT endocrine disruption	Zhao, Herron
02/15/16	Agents causing Anosmia	Hendrix, Lee
02/22/16	Topic 7	Matsushita, Herron
03/01/16	Topic 8	Steichen, Tamaro
03/08/16	Topic 9	Zhao, Kavanagh
03/18/16	Finals week – SOT	

**Some suggested topics:**

Air pollution from wildfires

Endocrine disruptors

Flame retardants (PBDEs; hexabromocyclodecanes in cyclic aliphatic bromide cluster)

Heavy metals

Engineered nanomaterials

eCigs

Marijuana and constituents – both smoked and consumed

Prescription drugs and the synthetic opioid epidemic

Pesticides – Glyphosate; neonicotinoids; others

PFOA/PFOS/PFAS and substituted alternatives

N-methylpyrrolidone

TCE

1-bromopropane

1,4-dioxane

## Course Summary:

**Date**

**Details**

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