

Syllabus

Feature	Considerations
Instructor & TA Information (for each Faculty and TA)	<ul style="list-style-type: none"> • Mary Ann Smith, PhD
	<ul style="list-style-type: none"> • Mary.A.Smith@uth.tmc.edu
	<ul style="list-style-type: none"> • (713) 500-9236 Office • (713) 500-9068 Fax • (713) 240-5268 Cell [<i>please only use for emergencies</i>] • Webex® meeting information: https://uthealth.webex.com/meet/mary.a.smith
	<ul style="list-style-type: none"> • UTHealth School of Public Health 1200 Pressler, RAS-W214 • Virtual office hours are available on request. Please email me to arrange a time to meet via Webex®.
Course Description	<ul style="list-style-type: none"> • PH2175L- Toxicology I: Principles of Toxicology
	<ul style="list-style-type: none"> • GS13 1603 633 – Toxicology I: Principles of Toxicology
	<ul style="list-style-type: none"> • Fall 2020
	<ul style="list-style-type: none"> • 3 Credit Hours
	<ul style="list-style-type: none"> • Format: Webex® / Hybrid delivery
<ul style="list-style-type: none"> • This course presents basic principles of toxicology & their applications to the understanding of xenobiotic-induced target organ toxicity. Topics covered include toxicant disposition, mechanisms of toxicity, and target organ responses to toxic agents. A broad overview of various classes of toxic agents will be presented in the context of their exposure routes, disposition, toxicologic sequelae, and mechanisms of toxicity. This course is designed to provide a foundation for understanding the complex interactions between toxicants and biologic systems. 	
<ul style="list-style-type: none"> • This is a required core course for MPH students majoring in EOHS (unless waived) and is a prerequisite for admission (or make up) in the PhD program in EOHS. • This course does not satisfy the MPH core requirement for Environmental Health for non-EOHS majors. 	
Textbook and Materials	<ul style="list-style-type: none"> • Textbook: Casarett & Doull’s Toxicology: The Basic Science of Poisons. McGraw-Hill Professional; 9th Edition, 2018.
	<ul style="list-style-type: none"> • Textbook is available at the UTHealth Bookstore (6901 Bertner Avenue, Suite 280, 713.500.9561) or at their website. http://www.bkstr.com/utnursingstore/shop/textbooks-and-course-materials

	<ul style="list-style-type: none"> • Also available on Amazon® for rent or purchase; also Kindle® version. • If the book is available at an alternate location, you may list it as well.
Course Expectations	<ul style="list-style-type: none"> • Students are expected to attend all classes, and participate actively in the class discussions, as well as Canvas® discussion boards. Prior notice is required in order to have an excused absence, unless illness or emergency situations arise. • Students who miss class for unexpected reasons are required to make up missed discussion time by forwarding in writing, what they would have been expected to answer in class, e.g., points of discussion papers presented & discussed in class. • Unless prior arrangements have been made, late work, e.g., take-home exams, will be assessed a late penalty via point subtraction for each day late.
Course Learning Objectives	<p>Upon successful completion of the course, students should be able to fulfill the following objectives:</p> <ul style="list-style-type: none"> • Identify the factors that may enhance or ameliorate toxic responses. • Describe the primary routes of toxicant exposure and their impact on toxicant absorption and distribution. Illustrate how duration, dose, and frequency of exposure impact a toxic response • Describe how xenobiotic biotransformation can either enhance or diminish the toxicity of a compound. • Explain the basis for target-organ specificity of toxic responses for each major organ system. • Name the major classes of compounds known to produce toxicity in each major organ system. • Describe a primary mechanism of toxicity for each class of compounds presented in the course. • Critically evaluate a toxicology journal article and be able to describe the hypothesis, experimental design, basic methods, and results as they are presented. • Formulate an experimental plan as a follow-up to a series of experiments described in a toxicology journal article.
List of Topics	<ul style="list-style-type: none"> • Course introduction / overview • Critically Evaluating Toxicology Literature • Historical Overview of Toxicology • Principles of Toxicology • Toxicant Absorption, Distribution, & Excretion • Toxicokinetics • Biotransformation • Gene Polymorphisms / Gene-Environment Interactions • Biomarkers • Mechanisms of Toxicity

	<ul style="list-style-type: none"> • Chemical Carcinogenesis & Genetic Toxicology • Developmental Toxicology • Toxic Responses of the Blood • Toxic Responses of the Immune System • Toxic Responses of the Liver • Toxic Responses of the Kidney • Toxic Responses of the Respiratory System • Air Pollutants • Toxic Responses of the Nervous System • Pesticide Toxicology • Toxic Responses of the Reproductive System* • Toxic Responses of the Endocrine System* • *Time permitting
Learning Activities	<ul style="list-style-type: none"> • Learning activities are centered on presentation of course materials via in- class lectures, narrated PowerPoint® recordings, assigned readings in the textbook, supplementary journal articles (primary literature & review articles), and web-based content. In- class lectures will provide the framework for the supporting content. • Each major topic area will be organized and self-contained in module format. This content will be made available using Canvas®. • Students are expected to come to class having read the preparatory material presented in each module. Lecture material will provide the foundation for subsequent paper and current topic discussions relevant to each major topic area. • To enhance group discussions, students will be expected to participate in the Canvas®-based discussion board on toxicology issues relevant to the major topic areas covered in class.
	<ul style="list-style-type: none"> • Since this is an ITV course being presented via Webex®, the instructor is available via phone, email, webcam or Canvas® communications to answer questions or explain material in greater detail. Please make an appointment to meet as your needs require.
Student Assessment And Grading Criteria	<ul style="list-style-type: none"> • A passing grade requires earning 70% or higher in the course.
	<ul style="list-style-type: none"> • Grades will be based upon the results of the Midterm and Final examinations, and in-class / discussion board participation. Periodic quizzes may be administered for extra credit. • The grading scale will be A (90-100%), B (80-90%), C (70-79%) and F (below 70%).
	<ul style="list-style-type: none"> • Learning activities & their percentage of the final grade are as follows: Midterm = 45% Final = 45% Class participation = 10% (Includes Discussion Board)

	<ul style="list-style-type: none"> • If administered, extra credit quiz points will be added to the numerator before calculating final percentage grade. • Late / make-up work will be dealt with on a case-by-case basis. • To the extent possible, the dates for exams and assignment due dates are arranged on a term-by-term basis that accommodates the needs of the majority of the class in terms of conflicts with other core course exams, etc. • Barring a sudden illness, late work or make-up work accommodations must be requested in advance of the due date for required materials.
Prerequisites and/or Technical Requirements	<ul style="list-style-type: none"> • Prerequisites for the course include undergraduate biology and either chemistry (organic chemistry preferred) or physiology. In certain circumstances, these requirements may be waived with the consent of the instructor.
	<ul style="list-style-type: none"> • Since course material & discussion boards utilize Canvas®, all students are expected to have access to a laptop or desktop computer and a high-speed Internet connection. • Computers should have the most current versions of QuickTime® video player, Adobe Reader, and Adobe Flash Player, and the ability to listen to mp3 or mp4 files.
	<ul style="list-style-type: none"> • Wireless access for personal laptops is available at the UTSPH.
	<ul style="list-style-type: none"> • Students requiring assistance with technology should contact SPH Information Technology: https://inside.uth.edu/sph/information-technology/faculty-staff-student-resources.htm
Policies and Procedures	<p>Canvas®:</p> <ul style="list-style-type: none"> • This course will rely on the Canvas ® Course Management System. PH2175L – Toxicology I: Principles of Toxicology will be one of the courses seen on your welcome page when you log into Canvas ®. All course announcements, assignments, exams, and course materials will be accessed from within this course site. In addition, students will post discussion board assignments, through Canvas ®. • To properly view the course in Canvas®, Chrome® appears to be the best web browser • For help with Canvas® issues, please click on the “Help” link at the bottom of the course home page. You will be directed to online and live chat help.

Withdrawal Information:

Date: November 27, 2020 is the last day to DROP with a grade of “W”.

Procedure: Students wishing to drop the course can find the add/drop form at <https://www.uth.edu/registrar/forms.htm>. The instructor’s signature and the signature of the faculty academic advisor are required (if a degree-seeking student). Non-degree / Certificate students are required to obtain the instructor’s signature & that of Ms. Joi Thomas (Joi.Thomas@uth.tmc.edu)

- who advises non-degree / Certificate students. Please be sure to sign your form before submission.
- Forms may be returned to the Office of Student Affairs in person, or scanned and emailed to: Travis.G.Crook@uth.tmc.edu.

Incomplete Grades:

- Students who are unable to complete the requirements necessary for successful completion of the course may request an incomplete grade.
 - The request for an incomplete grade must be made prior to the last class day.
 - The instructor will work with the student to ensure that they have the opportunity to submit the remaining course requirements in order to successfully complete the course by the end of the subsequent term.
- Students who are unable to successfully submit the remaining course requirements by the end of the subsequent term will be awarded a grade of F if prior arrangements are not made before the last class day of the subsequent term.

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| | <ul style="list-style-type: none">• Class attendance is included in the class-participation component of the course grade. In addition, active participation in the in-class discussions & discussion boards is expected throughout the term. Although this aspect of the course comprises only 10% of the final grade, it can make the difference between passing and failing the course, or an A or a B.• Students with 3 or more unexcused absences will receive an automatic 10% deduction in their course grade.• Deadlines for assignments are provided at the time the assignment is made (i.e., take-home midterm & final; online presentation). If prior arrangements are not made for turning in materials late, prior to the deadlines for submission, points will be taken off before grading occurs.• <u>SPH Writing Support Services</u>
SPH Writing Support Services provides free writing instruction for all students at all stages of the writing process. An ESL training specialist and an Academic Writing training specialist are available for in-person and online writing consultations. During each writing consultation, the training specialist will work with you to meet your and your instructor's goals for a particular writing assignment. SPH Writing Support Services will assist you in many areas of writing to help you take responsibility for your own writing.
SPH Writing Support Services is located in the SPH Library (RAS E-125) in the Houston campus, but it is available to students at all SPH campuses via interactive television (ITV). To schedule an in-person appointment or an ITV session with SPH Writing Support Services, please call 713-500-9121 or e-mail SPHWritingHub@uth.tmc.edu. |
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- **Academic Integrity**

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Individuals found guilty of academic dishonesty may be dismissed from the degree program. It is a student's responsibility to have a clear understanding of how to reference other individuals' work, as well as having a clear understanding in general as to the various aspects of academic dishonesty. Any student accused of a specific act stated in the previous paragraph is subject to UTHealth School of Public Health academic policies and procedures pertaining to violations of the student code of conduct for academic integrity. Each student in this course is expected to abide by the UTHealth School of Public Health Honor Code signed at first matriculation. Any work submitted by a student in this course for academic credit will be the student's own work.

You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e-mail, an e-mail attachment file, a diskette, or a hard copy.

During any quiz or exam you must do your own work. Talking or discussion is not permitted during a quiz or exam unless specifically stated, nor may you compare papers, copy from others, lend or borrow calculators, or electronic devices, or collaborate in any way unless specifically stated. Any collaborative behavior during a quiz or exam will result in failure, and may lead to failure of the course and UTHealth SPH disciplinary action. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both held accountable.

Please remember that you signed the academic integrity policy at orientation. No academic dishonesty of any kind (including copying/plagiarism) will be tolerated. All suspected academic dishonesty (actual or attempted) or other violations of the student code of conduct will be immediately reported to the UTHealth SPH Associate Dean for Academic Affairs. You can review the Student Conduct and Discipline Policy in the Handbook of Operating Procedures (HOOP) at

<https://www.uth.edu/hoop/policy.htm?id=1448220>.

	<ul style="list-style-type: none"> • Information tailored to your particular class • Include E-mail Procedures and online etiquette guidelines.
	<ul style="list-style-type: none"> • ADA Accommodation UT Policy on Accommodations for Disabilities: UTHHealth is committed to providing equal opportunities for qualified employees, job applicants, and students with disabilities in accordance with state and federal law. Student applicants and enrolled students can obtain information concerning program-related accommodations in each school from the school's Section 504 Coordinator (usually found in the Student Affairs office of each school). The Disability Coordinator (in Human Resources) and the Section 504 Coordinators can provide information and referrals regarding campus accessibility, disabled parking permits, transportation services, and other resources. The full policy can be found online in HOOP Policy Number 101, Disability Accommodation (http://www.uth.edu/hoop/policy.htm?id=1448050). <i>If you believe you have a disability requiring an accommodation, whether new or existing, please contact Mary Ann Smith, Assistant Dean of Students and ADA Accommodation Coordinator for UTHHealth School of Public Health at mary.a.smith@uth.tmc.edu or (713) 500- 9236</i>
Proctoring Policies	<ul style="list-style-type: none"> • Exams are administered in a take-home format. Exams are open book and open notes. Students are expected to work on their exams by themselves, without assistance from others. Exams will be submitted for plagiarism review via Turnitin® housed within Canvas®.
Course Calendar SEPARATE DOCUMENT	<ul style="list-style-type: none"> • DO NOT SUBMIT COURSE CALENDAR TO STUDENT AFFAIRS
	<ul style="list-style-type: none"> • List class activities and due dates.
	<ul style="list-style-type: none"> • Create a separate document for the course calendar, which will allow students to print it.

For help with learning objectives, see <https://sph.uth.edu/faculty/instructional-development/writing-learning-objectives/>