

SYLLABUS - IB 152: Environmental Toxicology Spring 2015

Tues./Thurs. Lecture: 3:30-5:00 PM, 219 Dwinelle

101 Discussion = Mon., 2-3 PM, 3083 VLSB

102 Discussion = Fri., 9-10 AM, 2032 VLSB

Tues., 1/20 – Information session

Thurs., 1/22 – General introduction to environmental toxicology concepts

Fri., 1/23 – REQUIRED DISCUSSION: San Francisco Bay readings
(Sommer et al., 2007; *Optional additional = Cloern and Jassby, 2012*).

Mon., 1/23 – REQUIRED DISCUSSION: San Francisco Bay readings
(Sommer et al., 2007; *Optional additional = Cloern and Jassby, 2012*).

POLLUTANT TYPES AND SOURCES

Tues., 1/27 – Petroleum

Thurs., 1/29 – Aromatic hydrocarbons

Fri., 1/30 – REQUIRED DISCUSSION: Deep Water Horizon readings
(Jernelov, 2010; Safina, 2011).

Mon., 2/2 – REQUIRED DISCUSSION: Deep Water Horizon readings.
(Jernelov, 2010; Safina, 2011).

Tues., 2/3 – Halogenated hydrocarbons

Thurs., 2/5 – Organophosphate pesticides

Fri., 2/6 – REQUIRED DISCUSSION: PCB dredging readings
(Gargill, 2009; *Optional additional = Michaels and Oke, 2010*).

Mon., 2/9 – REQUIRED DISCUSSION: PCB dredging readings
(Gargill, 2009; *Optional additional = Michaels and Oke, 2010*).

Tues., 2/10 – Trace metals

Thurs., 2/12 – Pyrethroids

Fri., 2/13 – REQUIRED DISCUSSION: Selenium readings
(Ohlendorf, 2002).

Mon., 2/16 – REQUIRED DISCUSSION: Selenium readings
(Ohlendorf, 2002).

Tues., 2/17 – Fipronil

Thurs., 2/19 – Dredging

Fri., 2/20 – OPTIONAL DISCUSSION: Review material for first exam.

Mon., 2/23 – OPTIONAL DISCUSSION: Review material for first exam.

Tues., 2/24 – EXAM ON POLLUTANT TYPES AND SOURCES

Thurs., 2/26 – Flexible class day (to adjust for any previously cancelled class)

Fri., 2/27 – OPTIONAL DISCUSSION: Go over answers of first exam.

Mon., 3/2 – OPTIONAL DISCUSSION: Go over answers of first exam.

Tues., 3/3 – Sampling and analytical methods

BIOLOGICAL EFFECTS

Thurs., 3/5 – Toxicity testing I

Fri., 3/6 – REQUIRED DISCUSSION: Toxicity testing readings
(Weston et al., 2005; Palmquist et al. 2011).

Mon., 3/9 – REQUIRED DISCUSSION: Toxicity testing readings
(Weston et al., 2005; Palmquist et al. 2011).

Tues., 3/10 – Intro. to source identification and risk assessment assignment

Thurs., 3/12 – Uptake and elimination

Fri., 3/13 – REQUIRED DISCUSSION: Review of K_{OC} , BCF, BAF, BSAF

Mon., 3/16 – REQUIRED DISCUSSION: Review of K_{OC} , BCF, BAF, BSAF

Tues., 3/17 –Bioavailability

Thurs., 3/19 –Toxicity testing II

Fri., 3/20 – No class

SPRING RECESS – March 23-27

Mon., 3/30 – No class

Tues., 3/31 – Biomarkers and Endocrine Disruption

Thurs., 4/2 – Environmental toxicology and human health

Fri., 4/3 – REQUIRED DISCUSSION: Readings TBA

Mon., 4/6 – REQUIRED DISCUSSION: Readings TBA

Tues., 4/7 – Development of resistance

Thurs., 4/9 – Benthic community analysis

Fri., 4/10 – OPTIONAL DISCUSSION: Review material for second exam

Mon., 4/13 – OPTIONAL DISCUSSION: Review material for second exam

Tues., 4/14 – EXAM ON BIOLOGICAL EFFECTS

Thurs., 4/16 – Flexible class day (to adjust for any previously cancelled class)

Fri., 4/17 – OPTIONAL DISCUSSION: Return second exam and go over answers

Mon., 4/20 – OPTIONAL DISCUSSION: Return second exam and go over answers

CASE STUDIES AND REGULATORY ISSUES

Tues., 4/21 – Industrialization of Commencement Bay

Thurs., 4/23 – DDT in Lauritzen Canal

Fri., 4/24 – OPTIONAL DISCUSSION: Individual meetings on Source ID project

Mon., 4/27 – OPTIONAL DISCUSSION: Individual meetings on Source ID project

Tues., 4/28 – Regulation of pollution: legislation

Thurs., 4/30 – Regulation of pollution: water and sediment quality criteria

Fri., 5/1 – OPTIONAL DISCUSSION: Individual meetings on Source ID project

RRR WEEK

Mon., 5/4 – OPTIONAL DISCUSSION: Individual meetings on Source ID project

Tues., 5/5 – Individual meetings on Source ID project

Thurs., 5/7 – Review Source ID assignment

TURN IN SOURCE ID ASSIGNMENT ON 5/7

Fri. 5/8 – OPTIONAL DISCUSSION FOR BOTH SECTIONS: Final exam review

FINAL EXAM – Friday, May 15; 7:00-10:00 PM