

ENSC 105 ENVIRONMENTAL SCIENCE

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OFFICE: 101 Natural Science, office hrs: 10am to noon, Wed (usually) & by appointment

**Class Goals: Provide students with opportunities to make a difference;
Help students build: scientific literacy; skills in critical thinking, research & self-instruction;
an understanding of the scientific basis of environmental issues, policies, laws;
habits of informed, active participation in social decisions, sustainable living,
and of service to their community and the earth.**

Date LECTURE TOPICS at a glance

31-Aug	Course goals & mechanics; What is Env. Science?
5-Sep	Literacy—Scientific & Ecological
7-Sep	Ecosystems—energy flow, matter cycles, watersheds
12-Sep	env. fate (you can't throw it away), biomagnification
14-Sep	ecological services, climate change
19-Sep	Communities—connections—your actions have many effects
21-Sep	all creatures have a role; kinds of biodiversity Change/succession, disturbance, condition
26-Sep	Populations— evolution/adaptation, flexibility
28-Sep	population growth, limits, carrying capacity (K))
3-Oct	Ecofootprints, Ecohandprints carbon and water footprints
5-Oct	*****EXAM 1***** grades posted by Oct 13;

Scientific Basis of US Env Laws & Policies

10-Oct	Scientists & env policy, NEPA, Tragedy of Commons
12-Oct	LAND (MUSY, NFMA, Wilderness Act, etc)
17-Oct	WATER (Clean Water Act, etc) & Watershed CPR
19-Oct	LIFE/Biodiversity (ESA, etc)
24-Oct	AIR (Clean Air Act) Ben Schmidt
26-Oct	WASTE (RCRA, etc) & TOXICS (TSCA, etc)

Using Science to Meet Our Basic Needs Sustainably

31-Oct	Shelter-- <i>Steve Loken</i> , LokenBuilders.com
2-Nov	Transportation-- <i>Jordan Hess</i> , ASUM trans; <i>Bob Giordano</i> , MIST
7-Nov	Water— <i>Michelle Hutchins</i> , <i>Travis Ross</i> , Msla Water Quality District
9-Nov	Energy — <i>Andrew Valainis</i> , montanarenewables.org
14-Nov	Food — <i>Josh Slotnick</i> , PEAS, www.gardencityharvest.org
16-Nov	*****EXAM 2 *****
21-Nov	no class
28,30Nov	Class choice of topics: Story of Stuff, Permaculture,
5,7 Dec	Env impacts of War; Watershed CPR in MT
12-Dec	Living Sustainably & Equitably, evaluations & fun

15-Dec *****MAKEUP EXAM, comprehensive, by appointment only*****

REFS: FP = Facpac (coursepack); AO = Alice Outwater's *Water* (one chapter from part I & one from part II)
C = Christensen's *Environment & You*
*** See EVST's online calendar www.umt.edu/conservationcalendar for field trips, service options, etc

[Missoula County Air Quality program](#)

[Msl Water Quality District](#)

or any env science text (use table of contents & index to find lecture topics)

FALL 2017

References (identified at page bottom*)

FP p1-20; C ch1;

C ch3; FP p13-14 (science or philosophy?)

C chs 6.4 & 7 & 12.1 to 12.5

FP p21-22 water cycle; AO ch 4 recommended

C ch 8; check out web sites on FP p23

C ch 6 & 10: communities, species interactions

see world community types (ecoregions) at

[EPA Ecoregion maps](#)

C ch 4.1-4.2 & 4.5-4.7

C Ch 4.3-4.4 & 5; Hardin on Cultural K in FP p18

FP p25.1 to 25.7,

FP p23,

last day to drop/change grade system 'easily' Nov 2

C ch 2 on env law/policy; FP p26a&b (NEPA)

FP p24; full article at

C ch 14 + fire ecology web sites on FP p12

C ch12.8-12.9 & 18.1; FP p27 (CWA); AO ch 10

C ch 11

C ch 9 & 8

C ch 18 & 19 (especially 19.3)

[UM Sustainability](#)

DiverseU Nov 1-2

green building web sites on FP p12

C ch 15 & 16 & EROEI web site on FP p23

C ch 13;

Nov 23 Thanksgiving (Think Globally, Gobble Locally)

Eco Literacy & MT Constitution by Watson

or student presentations or other class exercises

C ch 20; & rest of FP

NOTE: Friday, Dec 15, 3:20 to 5:20pm

[Living Planet Reports](#)

C ch 17.5
ch 12.4

[What is Agroecology](#)

Syllabus p. 1

subject to change

[Earth Charter](#)

[List of ecoregions in the United States](#) [List of terrestrial ecoregions of the world](#)
[Population Speakout: The Book](#)

[Footprint Network](#)



[The Tragedy of the Commons: The Die Of](#)

[UM DiverseU](#)

archived

