



**BEE313 - COURSE SYLLABUS - 2018**

**Course Name:** Ecohydrology

**Course Number:** BEE 313

**Credits:** 4

**Instructor name:** Stephen Good

**Instructor email:** [stephen.good@oregonstate.edu](mailto:stephen.good@oregonstate.edu)

**Instructor phone:** (541) 737-2118

**Instructor bio:** <http://agsci.oregonstate.edu/users/stephen-good>

**Teaching Assistant name and contact info:** Elnaz Hassanpour ([hassanpe@oregonstate.edu](mailto:hassanpe@oregonstate.edu))

**Course Description**

This course provides a quantitative description of fundamental ecohydrologic processes, the interactions of between water and the atmosphere, soils, and plants, as well as techniques for estimating the movement of water in the though ecosystems. Prereqs: BEE 312 [C]

**Course Format And Schedule – Spring 2018**

This corse is offered on campus during the spring quarter.

Section: 001 (CRN 55710)  
Time/Date: T/R 10:00AM -11:50AM  
Location WB205

**Mesurable Student Learning Outcomes**

At the conclusion of this course the student is expected to be able to:

- LO1: Use mass and energy balances to estimate ecohydrologic fluxes (ABET: A, N)
- LO2: Apply statistical tools to characterize variability in ecohydrologic systems (ABET: A)
- LO3: Demonstrate knowledge of problems facing current ecohydrologic systems (ABET: J)
- LO4: Describe local, regional, and global factors altering ecohydrologic function (ABET: J)
- LO5: Obtain and manipulate relevant data required to model ecohydrologic processes (ABET: A, N)
- LO6: Explain the impact of ecohydrologic changes on system functionality (ABET: N, J)

**Evaluation of Student Performance**

Students will be assessed through individual bi-weekly assignments (16%), bi-weekly project reports (26%), a group final project presentation (20%) and report (15%), and a final examination (25%).

Grades will be assigned as follows:

Percentage	Grade	Percentage	Grade
93 - 100	A	73 – 77	C
90 – 93	A -	70 – 73	C-
87 – 90	B+	67 – 70	D+
83 – 87	B	63 – 67	D
80 – 83	B-	60 – 63	D-
77 – 80	C+	0 – 60	F

**Learning Materials:**

Text: Physical hydrology 3<sup>rd</sup> Edition, S. Lawrence Dingman,  
 Computer Software: HEC-HMS Version 4.2.1

**Course Content**

This course combines approximately 120 hours of instruction, activities, and assignments for 4 credits.

WK	Topic	Textbook Chapters	Individual Activities	Group Activities
1	Physical properties and global cycles	1, 2, 3		
2	Meteorology and climatology	4		Initial ecohydrologic impact assessment (60pts)
3	Snow processes and radiation transfer	5	Problem set 1 (40pts)	
4	Evaporation as a physical process	6		Marys River precipitation climatology (60pts)
5	Transpiration, evaporation and interception	6	Problem set 2 (40pts)	
6	Soil water and infiltration	7, 8		Marys River evapotranspiration fluxes (60pts)
7	Groundwater storage and usage	9	Problem set 3 (40pts)	
8	Event response and flow	10		Marys River groundwater dynamics(60pts)
9	Model errors and calibration	10, F	Problem set 4 (40pts)	
10	Course wrap up and presentations			Final ecohydrologic impact presentation (200pts) Final ecohydrologic impact report (150pts)
Finals Week			Final Exam (250pts)	

**Statement Regarding Students with Disabilities**

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations."

**Expectations for Student Conduct**

Student conduct is governed by the university's policies, as outlined in the OSU student code of conduct: <http://studentlife.oregonstate.edu/code>.

**Incompletes & Late Submissions**

Incomplete (I) grades will be granted only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in 80% of the points possible. If you are having any difficulty that might prevent you completing the coursework, please don't wait until the end of the term; let me know right away. Required work submitted late will be penalized 10% per day overdue, up to a maximum of 30%.