UCSB Bren: ESM 215 Landscape Ecology,  
April 2 - June 8  
Lecture: Mondays from 2:30-3:45, Bren 1424  
Lab: Wednesdays from 2:30-3:45 Bren 2022

Spring 2012 Course Schedule*

Stephanie Moret: Bren 4522, smoret@bren.ucsb.edu, 805 570-5953 - 8 am to 8 pm  
Office hours are M 4:30 - 5:30 pm and W 10:30 am - 12 pm or by appointment  
TA: Eric Fournier: Bren 3418, ericfournier@umail.ucsb.edu,  
Office hours are M 1 - 2:30 pm, W 1 – 2:30 pm and F 10 am - 12 pm

GauchoSpace will have materials and information  
Lab Exercises are due the week following the assignment at the beginning of class  
Turner chapters follow the lecture. The book can broaden understanding or to help prepare for presentations. There is a copy of Turner in the reading room.
* Subject to change as the need arises
** Presentation material should be submitted in advance for inclusion in Gauchospace materials
*** Midterm related
**** Final related

LANDSCAPE PATTERN AND ANALYSES
Week 1
Lecture April 2  
**Introductions, syllabus & course overview**  
We’ll meet in Bren 1414 today only

Introduction to Landscape Ecology  
Terminology: Patch, Pattern, Process, Scale  
Discuss Forman’s 10 Principals of Landscape Ecology***  
Discuss Midterm  
Discuss Final –due June 12th  
Discuss Final Proposals, Paper Instructions and Rubric  
Assign Presentations**  
Discuss Presentation Rubric  
Discuss Grading

Homework

Prepare 10 -15 minute presentations due April 9th (#1-4)  
Read Forman’s Paper over the next few weeks for midterm  
Read Chapter 3 to prepare for lab  
Complete GIS exercise -email to Eric Fournier by Apr 11th

Lab April 4  
**Introduction to GIS (ch 3 Gergel)**  
GIS exercise
### Week 2  
**April 9**  
**Introduction to Landscape Pattern** (ch 1 & 2 Turner)  
10-15 minute presentations and discussion on topics:  
1) Edges and Ecotones, 2) Mosaics and Heterogeneity,  
3) Boundaries/Corridors/Networks, 4) Scales (spatial and temporal)  
Discussion image exercise and/or trip upstairs  

**Homework**  
Prepare 10-15 minute presentations due April 16th (5,6,7,8)  
Read Chap 5 (Gergel) before April 11th lab.  
Complete lab by April 18th.  
Initiate project proposal due April 23rd: Follow the outline in the Final Paper Handout for ‘Introduction –The Topic’  

**Lab  April 11**  
**Simulating Change in Landscape Pattern** (ch 5)  
Harvest Lite exercise  

### Week 3  
**April 16**  
**Causes of Landscape Pattern** (ch 4 Turner)  
Presentations on: 5) Abiotic Causes of Landscape Pattern, 6) Biotic Causes of Landscape Pattern, 7) Human Land Use, 8) Disturbance and Succession  

**Homework**  
Read chap 6 (Gergel) before April 18th lab.  
Complete lab by April 25th  
Finish 3-sentence proposal due April 23rd  

**Lab  April 18**  
Ch 6 Creating Landscape Pattern  
Fragstats  

### Week 4  
**April 23**  
**Landscape Disturbance Dynamics** (ch 7 Turner)  

**Proposals due**  
3-sentence project proposal due****  
**Homework**  
Read Chap 11 (Gergel) before April 25th lab.  
Complete lab by May 2nd  
Prepare 10-15 minute presentations (12, 13, 14) due April 30th  

**Lab  April 25**  
Chap 11 (Gergel) Landscape Disturbance: Location, Pattern, and Dynamics
Week 5 April 30 **Organisms and Landscape Pattern** (ch 8 Turner)
10-15 minute presentations and discussion on topics:
12) Organism-space interactions, 13) scale and organisms, 14) population models
Handout Midterm due May 7th at beginning of class***

Homework Prepare 10-15 minute presentations (15, 16, 17, 18) due May 14th
Work on midterm.
Ch 14 before May 2nd lab. Complete lab by May 9th.

Lab May 2 Ch 14 (Gergel) Landscape Context

Week 6 May 7 **Applied Landscape Ecology** (ch 10 Turner)
*Midterm due at beginning of class***
Guest Speakers: Dr. Lisa Stratton, Serra Hoagland, PhD
Candidate: Wildlife Linkages Project

Homework Prepare 10-15 minute presentations (15, 16, 17, 18) due May 14th.
Finish lab.

Lab May 9 Wildlife Linkages Project

Week 7 May 14 **Quantifying Landscape Pattern** (Ch 5 Turner)
Presentations: 15) Random Maps, 16) Geostatistics (point patterns, lattices), 17) Fractals, 18) Neutral Models
*Project Proposal due at beginning of class.*
Discuss Final Paper and Final Paper Rubric

Homework Read Chapter 7 before May 16th, finish lab by May 23rd.
Prepare presentations due May 21 (19, 20, 21, 22)
Work on final project

Lab May 16 Ch 7 (Gergel) –Understanding Landscape Metrics I
Fragstats
| **Week 8** | **May 21** | **Ecosystem Processes in the Landscape** (Ch 9 Turner)  
Homework  
Read Chapter 18 before May 23rd.  
Work on final project  
Lab  
May 23  
Chap 18 (Gergel) –Modeling Ecosystem Processes.  
Finish in lab. |
|**Week 9** | **May 28** | **Reserve Design** (ch 10 Turner)  
Holiday –no class  
Homework  
Read Ch 20 before May 30th. Finish by June 6th.  
Lab  
May 30  
Chap 20 Prioritizing Reserves for Aquistion |
|**Week 10** | **June 4** | **Reserve Design** (ch 10 Turner)  
Guest Speaker: Dr. Kate McCurdy, Director  
UC Reserve –Sedgewick Reserve  
http://sedgwick.nrs.ucsb.edu/  
Homework  
Work on your final projects/papers  
Lab  
June 6  
Walk the Coal Oil Point Reserve  
Host: Dr. Cristina Sandoval, Director  
UC Reserve –Coal Oil Point Reserve  
http://coaloilpoint.ucnrs.org/ |
| **Final** | **June 12** | **Final Papers Due** |