#### PLS (NRRM) 405/505 Park & Recreation Ecology

Spring 2016, 3 Credits, SEC 201 (CRN 4654) M/W: 01:00 – 02:15 pm

Room: S 166

#### Instructor

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Office Hours: M/W: 09:50 – 11:50 am, T/R: 10:50 – 11:50 am, Other times by appointment

## **University Policies**

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to <a href="www.marshall.edu/academic-affairs">www.marshall.edu/academic-affairs</a> and clicking on "Marshall University Policies." Or, you can access the policies directly by going to <a href="www.marshall.edu/academic-affairs/policies/">www.marshall.edu/academic-affairs/policies/</a>. Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment

#### **Required Texts, Additional Reading, and Other Materials**

- 1) Main Text: Weekly reading materials will be assigned by the instructor.
- 2) Recommended, but **not required**:
  - Manning, R. (2009). *Parks & People: Managing Outdoor Recreation at Acadia National Park*. Burlington, VM: University of Vermont Press (ISBN-13: 978-1584657910).
  - Cole, D.N. & Yung, L. (2010). Beyond Naturalness: Rethinking Park and Wilderness Stewardship in an Era of Rapid Change. Washington, DC: Island Press (ISBN-10: 1597265098).

## **Course Description**

Park/Recreation Ecology (PRE) generally refers to the scientific study of recreation resource impacts and their effective management. It can be specifically defined as the field of study that

examines, assesses and monitors visitor-induced impacts on the environment. Therefore, the course is designed to help students identify and evaluate the level of recreation resource impact, understand factors that cause impact, and suggest appropriate management actions to minimize impact under given conditions. Additionally, both social/biophysical science monitoring techniques for recreation resources will be introduced. While the course covers natural and human disturbance factors based on traditional disturbance/forest ecology, the spatial scope of the course is restricted to public lands and protected/conserved areas. Various studies in academic/professional journals will be reviewed and analyzed by each student during the semester (**Pre/co-requisites:** N/A)

#### Natural Resources/Recreation Management Discipline-Specific Learning Outcomes

Students will *demonstrate* the ability to *identify* natural resource and or/recreation management problems, *propose* appropriate management actions to address those problems, and *evaluate* the potential implications of their proposed management actions.

#### **Course Student Learning Outcomes and Assessment Measures**

Upon completion of this course, student will be able to

Course Student Learning Outcomes	How students will practice each outcome in the course	How student achievement of each outcome will be accessed in the course
Students will <u>understand</u> the	In-class examples/materials,	Group discussion 1-3, exam 1,
magnitude and significance of	student-led group discussion	research question analysis
visitor-induced impacts on the		presentation/paper
environment (the nature of		
visitor-induced impacts).		
Students will <i>identify</i> impact &	In-class examples/materials,	Group discussion 4-5, exam 1,
recovery relationship to its	student-led group discussion,	research question analysis
influential factors such as	low-stake writing	presentation/paper
environmental condition and		
site durability (social and		
biological factors).		
Students will <u>understand</u> how	In-class examples/materials,	Group discussion 6-7, exam 1,
much visitor-induced impact is	student-led group discussion	research question analysis
acceptable or unacceptable		presentation/paper
under given condition.		

Students will <i>evaluate</i> various	In-class examples/materials,	Group discussion 8, exam 1,	
types of social and biological	student-led group discussion,	research question analysis	
monitoring techniques/methods	low-stake writing	presentation/paper	
for identifying impacts.			
Students will <u>apply</u> appropriate	In-class examples/materials,	Group discussion 9-10, exam	
management tactics/strategies	student-led group discussion	1, research question analysis	
for controlling impacts under		presentation/paper	
given conditions.			

## **Course Requirements**

- 1) **Exam**: There will be one in-class exam during the semester (closed book test).
- 2) Research Question Analysis Presentation (individual project): The research questions will be assigned to each student later this semester and presentation schedule will be arranged at the end of the semester. Each student is expected to prepare max. 25 minute power point presentation about the research question assigned.
- 3) Research Question Analysis Paper: In addition to the research question analysis presentation, students will be required to submit an analysis paper about the research question (approximately three pages)
- 4) **Journal Article Review**: Students will be required to review *two* journal articles assigned by the instructor during the semester. The instructor will provide instructions for the expected content of assignment.
- 5) <u>Individual/Group Activity (in class)</u>: Almost every week, students will be required to have an individual or group activity based on the questions that the instructor provides. The instructor will provide instructions for the activities.
- 6) Attendance & Participation: Attendance will be part of your grade as noted below. If students miss more than 30 percent of the lectures, the instructor reserves the right to summarily assign you a failing grade for the course. In addition, 15 percent of the grade for this course is comprised of individual/group activities, most of which will be completed in class. Student will not be allowed to make-up in class activities missed due to unexcused absences. Absences will only be excused if they have been pre-approved by the instructor or if the student is able to document a valid reason for their absence (i.e. illness, death in family, automobile accident, the Dean of Students, etc.).

#### **Grading Policy**

Exam (15 pts.)

Research Question Presentation (20 pts.: instructor 15 pts., peer-evaluation: 5 pts.)

Research Question Paper (10 pts.)

Journal Article Review ( $15 \times 2 = 30$  pts.)

Undergraduate (Attendance: 10 pts.) Individual/Group Activity (15 pts.)

Total: 100 pts.

#### **Grading Scale**

100 - 93	A
92.9 - 85	В
84.9 - 77	C
76.9 - 70	D
69.9 - 0	F

#### **Additional Policies and Expectations**

- 1) *Class participation* is essential for the successful completion of the course. Students are expected to read the assigned papers prior to class and to come to class ready to discuss what they have read. In the absence of meaningful classroom discussions/activity, quizzes may be given to ensure that readings have been done.
- 2) *Class materials* can be found at MU-online (<a href="http://www.marshall.edu/muonline">http://www.marshall.edu/muonline</a>). The instructor will upload all lecture and class discussion files (pdf format) at MU-online in a timely manner. It is mandatory that students monitor the MU-online for updated class materials at least once a week.
- 3) *Assignment* (journal article review, research question analysis paper) is expected to be professionally presented. The instructor will provide instructions for the expected style of assignment as well as the <u>sample</u> of the review assignment.
- 4) *Resources*: Students who find themselves in need of additional assistance are reminded that the instructor is available during office hours. Again, the instructor's office hours are as follows: M/W: 09:50 11:50 am, T/R: 10:50 11:50 am.
- 5) *Course Evaluation*: Mid-semester evaluation will be done by the instructor to identify students' suggestions on the course (i.e. pace and topic/subject of the course). Final student course evaluation will be conducted during the last two weeks of the semester in a manner that maintains the integrity of the process and the anonymity of evaluators (online format).

# **Course Outline** (Please note this is a tentative schedule and it may change upon class progress)

PLS (NRRM) 405/505: Park/Recreation Ecology				
Date	Торіс	Note		
Jan. 11/13	Introduction: What is Park/Recreation Ecology (PRE)?			
Jan. 18	Martin Luther King, Jr. Holiday - University closed			
Jan. 20	Individual/Group Activity #1			
Jan. 25/27	Significance & Implication: Why do we need PRE? <u>Individual/Group Activity #2</u>	Guideline for "Journal  Article Review"		
Feb. 01/03	Type of Impact: Natural resource components  Individual/Group Activity #3			
Feb. 08/10	Factor/Degree of Impact: What is resistance and resilience?  Individual/Group Activity #4			
Feb. 15/17	Pattern of Impact: Spatial & temporal impact patterns  Individual/Group Activity #5	1st Journal Article Review Due		
Feb. 22/24	Planning: How much impact is too much impact? <u>Individual/Group Activity #6</u>			
Feb. 29/	Multidisciplinary Nature of PRE (holistic approach)			
Mar. 02	Individual/Group Activity #7			
Mar. 07/09	Monitoring: Social & biological monitoring methods  Individual/Group Activity #8			
Mar. 14/16	Management: Visitor & site management strategies	2nd Journal Article		
	Individual/Group Activity #9	Review Due		
Mar. 21/23	Spring Break – University closed			
Mar. 28/30	Research trends & future research in PRE (Invasive Species Management)  Individual/Group Activity #10			
Apr. 04	Exam Review			
Apr. 06	Exam (lecture room)			
Apr. 11/13	Research Question Allocation / Presentation Schedule / Q & A / Research Question Presentation Preparation			
Apr. 18/20	Research Question Presentation Preparation			
Apr. 25/27	Presentation I/II	Research Question Paper Due		

# Readings for PLS 405/505 Park & Recreation Ecology

2<sup>nd</sup> Week. Why do we need PRE?

Recreation Ecology Research Findings: Implication for wilderness and park managers <a href="https://profile.usgs.gov/myscience/upload\_folder/ci2013Feb0516145336429Rec%20Ecol%20Res%20Findings.pdf">https://profile.usgs.gov/myscience/upload\_folder/ci2013Feb0516145336429Rec%20Ecol%20Res%20Findings.pdf</a>

3<sup>rd</sup> Week. Impact component

Sustaining Visitor Use in Protected Areas

http://leopold.wilderness.net/pubs/705.pdf

Impacts of Recreation

http://onlinelibrary.wiley.com/doi/10.1111/j.1752-1688.1979.tb00287.x/pdf

4<sup>th</sup> Week. Environmental Durability

Recreation Trampling on Vegetation

http://www.leopold.wilderness.net/pubs/238.pdf

Effect of Trampling I

http://leopold.wilderness.net/pubs/170.pdf

Effect of Trampling II

http://onlinelibrary.wiley.com/doi/10.2307/3237032/pdf

5<sup>th</sup> Week. Impact Patterns

Spatial Pattern of Impact

http://leopold.wilderness.net/pubs/498.pdf

Spatial/Temporal Pattern of Impact

http://www.pwrc.usgs.gov/prodabs/pubpdfs/4966 Marion.pdf

Sustaining Visitor Use in Protected Areas

http://leopold.wilderness.net/pubs/705.pdf

6th Week. ROS/LAC

Management Framework I

http://leopold.wilderness.net/pubs/58.pdf

Management Framework II

http://leopold.wilderness.net/pubs/115.pdf

Management Framework III

http://leopold.wilderness.net/pubs/125.pdf

#### Management Framework IV

http://leopold.wilderness.net/pubs/155.pdf

7<sup>th</sup> Week. Holistic approach (Instructor lecture note)

http://onlinelibrary.wiley.com/doi/10.1111/j.1523-1739.2006.00570.x/pdf

http://www.fs.fed.us/pnw/pubs/pnw\_gtr678.pdf

http://www.esajournals.org/doi/pdf/10.1890/1051-

<u>0761%281998%29008%5B0891%3AAFFUSS%5D2.0.CO%3B2</u>

 $\underline{http://www.leopold.wilderness.net/pubs/497.pdf}$ 

8<sup>th</sup> Week. Monitoring

Science of Management/Monitoring

http://leopold.wilderness.net/pubs/507.pdf

9<sup>th</sup> Week. Management

Principle of Management

http://www.treesearch.fs.fed.us/pubs/23581

10<sup>th</sup> Week. Research trends & future research in PRE

http://www.leopold.wilderness.net/research/fprojects/docs12/issrmchapter.pdf

http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs141p2\_018049.pdf

## **Article Review Assignment**

First: http://leopold.wilderness.net/pubs/180.pdf

Second: http://leopold.wilderness.net/pubs/484.pdf