

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

Fall 2014, 3 Credits, SEC 101 (CRN 3831)

T/R: 02:00 – 03:15pm

Room: Morrow Library Commons

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### Instructor

Min Kook Kim, Ph.D.

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Office Hours: M/W: 09:50 – 11:50am, T/R: 10:50 – 11:50am

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 [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to [http://www.marshall.edu/academic-affairs/?page\\_id=802](http://www.marshall.edu/academic-affairs/?page_id=802)

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 refers to the scientific study examining recreational impact on the environment. It can be specifically defined as the field of study that examines, assesses and monitors visitor-induced impact. Therefore, the course is designed to help students identify and evaluate the level of 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 natural resources management 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 national forests/parks and protected/conserved areas. Various studies in 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 (Questions)   | How students will practice each outcome in the course                        | How student achievement of each outcome will be accessed in the course      |
|--|--|---|
| Students will <i>understand</i> magnitude and significance of recreational impact                          | In-class examples/materials, student-led group discussion                    | Group discussion 1-3, exam 1, research question analysis presentation/paper |
| Students will <i>identify</i> mechanism/relationship between amount of visitor use and intensity of impact | In-class examples/materials, student-led group discussion, low-stake writing | Group discussion 4-5, exam 1, research question analysis presentation/paper |
| Students will <i>distinguish</i> social and biological factors contribute to recreational impact           | In-class examples/materials, student-led group discussion                    | Group discussion 4-5, exam 1, research question analysis presentation/paper |
| Students will <i>understand</i> how much recreational impact is  | In-class examples/materials, student-led group discussion                    | Group discussion 6-7, exam 1, research question analysis                    |

|  |  |  |
|--|--|--|
| acceptable or unacceptable under given condition   |  | presentation/paper   |
| Students will <i>evaluate</i> various types of social and biological monitoring methods and select appropriate techniques through management framework | In-class examples/materials, student-led group discussion, low-stake writing | Group discussion 8, exam 1, research question analysis presentation/paper    |
| Students will <i>apply</i> various site and visitor management tactics and strategies for controlling recreational impact under given conditions       | In-class examples/materials, student-led group discussion                    | Group discussion 9-10, exam 1, research question analysis presentation/paper |

### Course Requirements

- 1) **Exam:** There will be one in-class exam during the semester (closed book test).
- 2) **Research Question Analysis Presentation:** A total of six different research questions will be analyzed by each student group. The research questions will be assigned to each group later this semester and presentation schedule will be arranged at the end of the semester. Each group is expected to prepare max. 30 minute power point presentation about the research question assigned.
- 3) **Research Question Analysis Paper:** In addition to the research question analysis presentation, each group 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) **Lab/Group Discussion/Activity:** Almost every week, students will be required to have a group discussion based on the questions that the instructor provides. The instructor will provide instructions for the group discussion, but individual students must perform the responsibilities of presenter and writer at least more than five times, in order to obtain full class participation point.
- 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, 10 percent of the grade for this course is comprised of group discussions and activities, most of which will be

completed in class. Student will not be allowed to make-up in class discussions and 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.).

- 7) **Extra Point Chance (I)**: To celebrate GIS day this year (November 19, Wednesday), the IST and Geography departments will be jointly hosting a series of events (GIS/RS poster presentation, guest lecture, geocaching event, etc.) in the Memorial Student Center. All interested faculty, students and staff are invited to participate in this poster presentation and geocaching event. Any types of GIS/RS posters including your past and on-going projects will be welcomed, and a small prize will be given for best graduate and undergraduate posters. In addition, if you present your past and on-going projects, you will receive *two extra points*. If you attend the student poster presentation (either morning or afternoon session), you will receive *one extra point*.
- 8) **Extra Point Chance (II) - MU PROS Participation**: The Marshall University Park and Recreation Organization for Students (MU PROS) was created to promote active involvement in park and recreation related events on campus and in the community. Students in this course may earn up to *three points* of extra credit by participating in MUPROS meetings and events. A total of two points can be earned by participating in weekly MUPROS meetings (0.5 point earned per meeting). An additional one points can be earned by participating in MUPROS events (0.5 point per event).

### **Grading Policy**

Exam (20 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.), \*Graduate (Additional reading assignment: 10 pts.)

Group Discussion/Activity (10 pts.)

**Total: 100 pts.**

### **Grading Scale**

|           |   |
|-----------|---|
| 100 – 93  | A |
| 92.9 – 85 | B |
| 84.9 – 77 | C |
| 76.9 – 70 | D |

### 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 (If students provide a quality group discussion question based on the assigned paper prior to class, the instructor will assign extra credit).
- 2) **Class materials** can be found at MU-online (<http://www.marshall.edu/muonline>). 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** (research question analysis + two journal article reviews) is expected to be professionally presented. The instructor will provide instructions for the expected style of assignment as well as the sample 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 during the fall 2013 semester are as follows: M/W: 09:50 – 11:50am, T/R: 10:50 – 11:50am.
- 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.

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

| PLS (NRRM) 405/505: Park/Recreation Ecology |   |   |
|---|---|---|
| Date  | Topic   | Assignment                                    |
| Aug. 26/28                                  | Introduction & Overview: What is Park/Recreation Ecology (PRE)?<br><u>Lab/Group discussion #1</u> |   |
| Sept. 02/04                                 | Significance & Implication: Why do we need PRE?<br><u>Lab/Group discussion #2</u>                 | <i>Guideline for "Journal Article Review"</i> |
| Sept. 09/11                                 | Type of Impact: Four main natural resource components<br><u>Lab/Group discussion #3</u>           |   |

|                     |  |   |
|---------------------|--|---|
| Sept. 16/18         | Factor/Degree of Impact: What is resistance and resilience?<br><u>Lab/Group discussion #4</u>  |   |
| Sept. 23/25         | Pattern of Impact: Spatial & temporal impact patterns<br><u>Lab/Group discussion #5</u>  |   |
| Sept. 30<br>Oct. 02 | Impact Management: How much impact is too much impact?<br><u>Lab/Group discussion #6</u>   | <i>1st Journal Article<br/>Review Due</i> |
| Oct. 07/09          | Multidisciplinary Nature of PRE (holistic approach)<br><u>Lab/Group discussion #7</u>  |   |
| Oct. 14/16          | Impact Monitoring: Social & biological monitoring methods<br><u>Lab/Group discussion #8</u>  |   |
| Oct. 21/23          | Impact Management: Visitor & site management strategies<br><u>Lab/Group discussion #9</u>  |   |
| Oct. 28/30          | Invasive Species Management (DVD)<br><u>Lab/Group discussion #10</u><br>Research trends & future research in PRE   | <i>2nd Journal Article<br/>Review Due</i> |
| Nov. 04             | <b><u>Exam Review</u></b>  |   |
| Nov. 06             | <b><u>Exam</u></b> (lecture room)  |   |
| Nov. 11/13          | Research Question Allocation / Presentation Schedule / Q & A<br>/ Reading & Literature Review<br>*Nov. 13: the instructor will be in Washington D.C. for the 2014 NARSC<br>conference presentation   |   |
| Nov. 18/20          | Research Question Presentation Preparation (The instructor<br>will be in the lecture room during the class times).<br>* Note: GIS Day Event by Integrated Science/Technology & Geography:<br>Poster Presentation & Geocaching (NOV. 19, Memorial Student Center) | <i>Research Question<br/>Paper Due</i>    |
| Nov. 25/27          | <b>NO CLASS</b> – Thanksgiving/Fall Break  |   |
| Dec. 02/04          | Research Question Presentation I & II  |   |

## 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

[https://profile.usgs.gov/myscience/upload\\_folder/ci2013Feb0516145336429Rec%20Ecol%20Res%20Findings.pdf](https://profile.usgs.gov/myscience/upload_folder/ci2013Feb0516145336429Rec%20Ecol%20Res%20Findings.pdf)

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](http://www.pwrc.usgs.gov/prodabs/pubpdfs/4966_Marion.pdf)

Sustaining Visitor Use in Protected Areas

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

6<sup>th</sup> 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.fs.fed.us/pnw/pubs/pnw_gtr678.pdf)

<http://www.esajournals.org/doi/pdf/10.1890/1051-0761%281998%29008%5B0891%3AAFFUSS%5D2.0.CO%3B2>  
<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.treearch.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>

**Article Review Assignment**

First: <http://leopold.wilderness.net/pubs/180.pdf>  
Second: <http://leopold.wilderness.net/pubs/484.pdf>