Course Description:
This course examines the connections between human health and exposure to green and blue spaces. Does time spent in natural spaces reduce stress and anxiety, and improve physical health? Or conversely might exposure to blue and/or green spaces have a detrimental effect on health?

After building an understanding of related theories through scholarly readings and in-class discussions, we will examine these questions from quantitative and qualitative perspectives. We will identify methodological challenges, such as how to measure exposure to these spaces. We will explore questions of equity in access to healthy spaces, and consider non-urban spaces as well. Research and writing assignments will expand our understanding of the current body of evidence.

A class field trip will help place this area of research in context, and individual experiences in blue and green spaces will provide opportunities for personal reflections and the observation of others in these “healthy spaces.”

Community & Global Health Concentration elective.
No prerequisites.
Specific Course Learning Objectives:
1) Build knowledge of theoretical underpinnings of green/blue space research in and beyond geography.
2) Understand variability in how green and blue space exposures are assessed, be able to critique specific assessments in particular studies.
3) Understand different types of studies (experiment, cohort, cross-sectional) and the level of evidence each provides.
4) Understand common challenges to assessing the relationship between green/blue spaces and health outcomes/conditions (e.g. confounding, bias).
5) Effectively assess current state of research on the potential relationship between green/blue space and at least one health outcome/condition.
6) Examine several current challenges within green/blue space research (e.g. environmental gentrification).
7) Develop an understanding of your own personal relationship with green and blue spaces through reflections while in these settings.

Course Assignments:
- Participation (incl. reading and green/blue space reflections) 30%
- Midterm #1 – Integration of green/blue space reflections + theory 20%
- Midterm #2 – Health outcome research paper + presentation 20%
- Final Project – Research paper (or other project as approved by Prof. McDonald) + presentation 30%
TOTAL 100%

Course Grading:
Letter grades will be assigned as follows:
A ≥ 94 % Outstanding relative to level necessary to meet course objectives/requirements
A- 90 – 93.9 %
B+ 87 – 89.9 %
B 83 – 86.9 % Significantly above level necessary to meet course objectives/requirements
B- 80 – 82.9 %
C+ 77 – 79.9 %
C 73 – 76.9 % Meets course objectives/requirements in every respect
C- 70 – 72.9 %
D+ 67 – 69.9 % Worthy of credit but fails to fully meet course objectives/requirements
D 63 – 66.9 %
D- 60 – 62.9 %
F < 60 % No credit – work was either 1) complete but at level not worthy of credit, or 2) not complete and no agreement was reached between professor and student for an official Incomplete.
I The policy for incompletes is in accordance with that of the college:
http://www.macalester.edu/academicprograms/academicpolicies/grading/

8/16/18
**Required Materials:**
A paper journal/notebook exclusively for reflections in your green and blue spaces, which will be turned in to Prof. McDonald at several points in the semester.

**Required Readings:**
All readings for this course will be available on Moodle (unless otherwise stated).

**Course Website:**
Login at [http://moodle.macalester.edu/](http://moodle.macalester.edu/)
The course website is a source of *the most up-to-date information* for the class and includes readings, assignments, and other information.

**Tentative Course Schedule:** subject to change, with fair warning. Check Moodle regularly!

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Class Topic</th>
<th>Readings for Today (see Moodle for specific pages)</th>
<th>Major Assignment Due</th>
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<tr>
<td>1</td>
<td>9/5</td>
<td>COURSE INTRO</td>
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<tr>
<td>3</td>
<td>9/14</td>
<td>YOUR GREEN/BLUE SPACES: Discussion</td>
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<td>4</td>
<td>9/22</td>
<td>FIELD TRIP (Saturday)</td>
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<td>4</td>
<td>9/24</td>
<td>POST-FIELD TRIP: Discussion</td>
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<tr>
<td>4</td>
<td>9/26</td>
<td>THEORETICAL FOUNDATION: Physical activity</td>
<td>1) Coombes et al 2010</td>
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<tr>
<td>Date</td>
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3A) Amoly et al 2014.  
3B) Supplemental material for Amoly et al 2014. |
| 5     | 10/1 ASSESSING GREEN SPACE                 | *Neighbourhood Green Space Tool (NGST)*  
2) NGST User Guide.  
3) NGST Tool. |
|       | DUE: Use NGST to assess your green space  |                                                        |
2) Li et al 2015. |
3) Bell et al 2015. |
| 6     | 10/8 ASSESSING BLUE SPACE                  | *Review Bell et al 2015, "Seeking Everyday Wellbeing" from last class.* |
|       | DUE: MIDTERM #1                            |                                                        |
| 10/10 | DISCUSS REFLECTIONS ON YOUR GREEN & BLUE SPACES |                                                        |
| 10/12 | QUANTITATIVE STUDIES: Study designs        | 1) EXPERIMENT: Tyrvainen et al 2014.  
| 7     | 10/15 QUANTITATIVE STUDIES: Study designs  | 3) LONGITUDINAL STUDY: Alcock Et al 2014.  
4) CROSS-SECTIONAL STUDY: Triguero-Mas et al 2015. |
<p>| 10/17 | QUANTITATIVE STUDIES: Confounders; Mediators; Modifiers | 1) Triguero-Mas et al 2015. |
| 8     | 10/22 QUALITATIVE STUDIES                  | 1) Thomas 2015. |
| 10/24 | QUALITATIVE STUDIES                        | 1) Bell et al 2015. |
|       | FALL BREAK 10/25-10/28                     |                                                        |
| 9     | 10/29 CATCH UP &amp; RECAP                     |                                                        |
| 10/31 | STUDENT PRESENTATIONS/DISCUSSIONS (MIDTERM #2) | DUE: MIDTERM #2 PROJECT/REPORT |
| 11/2  | STUDENT PRESENTATIONS/DISCUSSIONS (MIDTERM #2) |                                                        |</p>
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<tr>
<th>Week</th>
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<th>Topic</th>
<th>Presentations</th>
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|      | 11/7 | ADVERSE EFFECTS | 1) Lohmus & Balbus 2015.  
2) Dadvand et al 2014. |
Optional: Checker 2011. |
|      |      | THANKSGIVING BREAK 11/21-11/25 |
2) Plane & Klodawsky 2013. |
|      | 11/30 | NEW/COMPLEMENTARY AREAS OF STUDY | 1) Rook 2013.  
| 12   | 12/3 | CATCH UP & RECAP | 1) James et al 2015. |
|      | 12/5 | FINAL PRESENTATION PREP; COURSE EVALUATIONS |
|      | 12/7 | STUDENT PRESENTATIONS/DISCUSSIONS |
|      | 12/10 | STUDENT PRESENTATIONS/DISCUSSIONS |
|      | 12/12 | STUDENT PRESENTATIONS/DISCUSSIONS | DUE: FINAL PROJECT/PAPER |
Succeeding in This Course:

To maximize your success in this class, please:

- **Prepare** – Come to class prepared to discuss the assigned readings and any related reflections or assignments.
- **Participate** – Active participation will significantly enhance your achievement of the learning objectives. Those who consistently attend class, arrive prepared (see above), and participate in discussions will earn high grades for participation.
- **Support** – Help create a supportive and respectful learning environment. Encourage everyone’s participation in discussions. Refrain from any unnecessary distractions in the classroom (e.g. using digital devices during class for non-class related activities).
- **Stay on Track** – Late assignments or exams will not be accepted.
  - Exceptions may be made for extraordinary circumstances, but only if approved before the due date.
- **Consult** – If you are having difficulties or would like to discuss anything further, Professor McDonald is available to help.
- **Relax** – The classroom is a place to learn, develop, and discuss new ideas.

Academic Integrity Policy:

Academic dishonesty will not be tolerated. Acts of academic dishonesty include, but are not limited to, plagiarism, fabrication of data, cheating, stealing or buying copies of exams or papers, unauthorized collaboration, and taking exams for someone else. Be aware that at Macalester penalties for academic dishonesty include verbal reprimand, written reprimand, lowering of grade on a specific exam or assignment, a failing grade on specific exam or assignment, lowering of course grade, a failing course grade, suspension from the college, and expulsion from the college. For more details, see the college’s information on Academic Integrity at: [http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/](http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/)

Accommodations:

In some circumstances, course design may pose barriers to a student’s ability to access or demonstrate mastery of course content. Reasonable accommodations are available for students with documented disabilities. If you think you need an accommodation, please contact the Office of Student Affairs early in the semester. The Assistant Dean of Students coordinates services for any student in need of accommodations. You may schedule an appointment by contacting the Office of Student Affairs, 119 Weyerhaeuser, 651-696-6220.