

## Nicholas Mega Trends

Fall, 1<sup>st</sup> Half, 2017

Instructor: Jesko von Windheim      email: [jesko@duke.edu](mailto:jesko@duke.edu)

TA: Dave Koester      email: [david.koester@duke.edu](mailto:david.koester@duke.edu)

**Credit: 1.5**

### Course Overview

This course investigates major, over-arching trends in environmental science, policy, thought, and practice and likely trajectories for the coming 25 years. The goal is for students to understand these trends and assess how changes in the environment might impact – and be impacted by – society, from the scale of individual decisions to global economies.

The course is based on 5-6 lectures from thought leaders. Student teams (1 team for each lecture) will follow up each lecture with a review of the trend and an analysis of its potential impact over the next quarter century. Each analysis will involve a single page written memo (supported by exhibits as needed) and a class presentation. Each team will be supported by an expert at the Nicholas School to provide mentorship and to facilitate class discussion.

The topics of the class will be driven by emerging issues that are of most pressing interest to our communities but also ones that may not have immediately obvious connections to contemporary environmental discussions. Updates to topics will be listed on the Mega Trends website (<http://sites.nicholas.duke.edu/innovate/mega-trends-2017/>).

This course precedes Foundations in Environmental Entrepreneurship and is a requirement for the Nicholas Certificate Program in Environmental Entrepreneurship.

### Topic Write-ups (60%)

The course will require two brief analyses written up over the course of the term. Analyses will complement topics covered in class: one analysis will be a case study write-up (10%); one submitted on an individual basis (20%); and one will be submitted as a team (30%). The analyses will follow a “4 Forces” framework taught in class.

### Group Presentation (30%)

Each megatrend lecture will be followed by a student led review of the trend. Each of these classes will be facilitated by a Nicholas faculty. Students will be asked to analyze each trend on the 4 forces analytical process.

Presentations will be prepared by teams of no more than 5 students.

### In Class Participation (10%)

Every class will be based on a collective analysis of megatrend lectures and written supporting material, it is critical that students come to class prepared to participate actively in the discussion. Assigned reading

material will help students to prepare for class. Learning for everyone in the class is enhanced through debate, different perspectives and new insights that come from student participation.

Each student should strive to contribute high *quality* comments, *not* high *quantity*. To contribute high quality comments, students should strive to listen carefully to the comments of classmates with the goal of extending or qualifying others' comments and ideas while avoiding repeating them.

To keep class conversations interesting and widely distributed across students, priority will be given to those who have spoken less. Occasionally, students will be called on directly to contribute. To this end, we expect students to be prepared to give a presentation, with 3 slides, on any of the assigned readings at any time that they are called upon. Presentations should be no more than 5 minutes with an additional 2-3 minutes allowed for class discussion/Q&A.

## Course Grading

Grading approach will follow standard letter grade.

## Readings

- *Environmental Management Strategy: Four Forces Analysis* (available in Sakai)
- *RER Energy Group: Expanding into Mexico* (available in Sakai)
- *Jordan Lake Eutrophication, Regulations, and New Technology for Different Goals* (available in Sakai)
- *Basic Presentation Checklist* (optional – available at <https://cb.hbsp.harvard.edu/>) )
- *Presentations 101* (optional – available at <https://cb.hbsp.harvard.edu/>)

## Memo Writing Tutorial

A memo writing tutorial available at: <https://sakai.duke.edu/x/C63Me8>

## Outcomes

Students who take this course will learn

- How core trends affect our wellbeing and how that pertains to us as individuals and as a society;
- Critical analysis techniques;
- Effective communication (written and oral);
- The linkages between the environment, the economy and business.

## Schedule

Course: ENVIRON762

Location: EH 1112

Time: Tu/Th 4:40 – 5:55 pm

Date	Topic	Reading/Tutorial	Content	Lead
Tue, Aug 29	Course Introduction/Value of Strategy	Four Forces Analysis Paper	Lecture	Jesko von Windheim
Thu, Aug 31	Case: RER Energy Group	RER Energy Group: Expansion into Mexico	Case Discussion	Jesko von Windheim
Tue, Sep 05	1 p memo intro; presentation fundamentals	Presentation and MS Word Tutorials in <a href="https://sakai.duke.edu/x/wzc8AT">https://sakai.duke.edu/x/wzc8AT</a>	Lecture	Jesko von Windheim
<b>Thu, Sep 07</b>	<b>Mega Trends Talk 1</b>		<b>Challenges and Opportunities for the U.S. Electricity Industry</b>	<b>Dalia Patino-Echeverri</b>
Tue, Sep 12	Case: Jordan Lake Eutrophication	Jordan Lake	Case Discussion	Jesko von Windheim
Thu, Sep 14	Policy Memo Workshop	How to Write a Policy Memo (Sakai Tutorial) <a href="https://sakai.duke.edu/x/C63Me8">https://sakai.duke.edu/x/C63Me8</a>	Workshop on how to write a policy memo	Nicki Cagle
<b>Tue, Sep 19</b>	<b>Mega Trends Talk 2</b>		<b>Mega challenges = Mega opportunities: Growing a greener future (profitably)"</b>	<b>Eriks Brolis</b>
Thu, Sep 21	Jordan Lake Analysis	Jordan Lake	Student Presentation: Analysis of Jordan Lake	
Sun, Sep 24	Jordan Lake 1-p memo due			
<b>Tue, Sep 26</b>	<b>Mega Trends Talk 3</b>		<b>The Ocean as a Climate Change Reservoir: Good News, Bad News</b>	<b>Susan Lozier</b>
<b>Thu, Sep 28</b>	<b>Mega Trends Talk 4</b>		<b>Imagine a World with Too Much Wood</b>	<b>Jeff Vincent</b>
Sun, Oct 01	1p memo due on Mega Trend talk			
Tue, Oct 03	Analysis of Talk 1 & 2		Student Presentation: Analysis of Talk 1 & 2	Student Group 1 & 2
Thu, Oct 05	Analysis of Talk 3 & 4		Student Presentation: Analysis of Talk 3 & 4	Student Group 3 & 4
Sun, Oct 15	Group Write-up due (7-10p; 1p exec summary)			