THE OHIO STATE UNIVERSITY

John Glenn College of Public Affairs

Trevor L. Brown
Dean and Professor

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August 11, 2015
Vice Provost W. Randy Smith
Council on Academic Affairs
Office of Academic Affairs

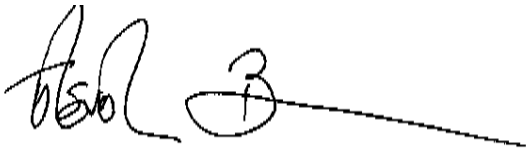
Dear Dr. Randy Smith,

Please find enclosed a proposal for a new undergraduate minor in **Science, Engineering, and Public Policy.** The new minor will be administered by the John Glenn College of Public Affairs, with guidance from the College of Engineering. One new course request is included with this proposal and, upon approval, is intended to be used as an option for the new minor. The Glenn College has several faculty members whose research focuses on science and technology policy, including one member who has a joint appointment with the College of Engineering; and is also home to the Battelle Center for Science & Technology Policy. As a result, the School is at the forefront of science policy research and is in an ideal position to offer this minor.

This proposed minor will provide students within the Glenn College and across the campus a curriculum that gives insight into one of the most important roles of government: providing the knowledge bases and tools that drive much of economic growth, public health, and national security. Students will be introduced to the theories of public investment in science, engineering, and innovation; the processes that support and disseminate research and development; national policies that created and sustain the land grant colleges and the national laboratories; and the international institutions and organizations that govern science and engineering. The minor in Science, Engineering, and Public Policy is designed to complement other studies from across the university. The coursework has been created in cooperation with the College of Engineering. In addition, we anticipate that a large number of students from across campus (especially science majors) may be interested in this minor as well.

These minor will serve an important function for Ohio State students, as it provides in depth exploration of some of the key issues facing science, technology, and engineering policy today. The program adheres to university standards for minors, while giving students ample flexibility to take courses that relate to an area of science policy of most interest to them. In closing, we thank the committee for their investment of time to review this request and welcome any feedback.

Sincerely,



Trevor L. Brown, Dean

THE OHIO STATE UNIVERSITY

JOHN GLENN COLLEGE OF PUBLIC AFFAIRS

Proposal for a New Undergraduate Minor in Science, Engineering, and Public Policy

Submitted to the John Glenn School of Public Affairs Undergraduate Curriculum Committee:

General Information:

Name: Undergraduate Minor in Science, Engineering, and Public Policy
Proposed Implementation Date: Spring 2016
Academic Unit Responsible for Administrating the Minor: John Glenn College of Public Affairs

Rationale

The John Glenn College of Public Affairs is pleased to propose a new undergraduate interdisciplinary minor in Science, Engineering, and Public Policy to engage students from within engineering, business, and the natural, physical, and social sciences to study public policy. The rationale for initiating this minor is to address a curricular gap by providing a cohesive curriculum that creates insight into one of the most important roles of government: providing the knowledge bases and tools that drive much of economic growth, public health, and national security. Students will be introduced to the theories of public investment in science, engineering, and innovation; the processes that support and disseminate research and development; national policies that created and sustain the land grant colleges and the national laboratories; and the international institutions and organizations that govern science and engineering.

The primary audience for the minor will be undergraduate students of engineering, business, and the natural, physical, and social sciences who want to broaden their knowledge about public policy and how to work with and for government in these sectors, as well as public affairs majors who seek to learn more about policy pertaining to science, technology and engineering issues. The curriculum will help students to explore, understand, analyze, craft, and improve public policies at the intersection of the natural and physical sciences, engineering, business, and government. The minor will engage students in the study of the institutions, organizations, policies, and public budgeting underlying investment in science, engineering, and innovation. The curriculum will also serve to support the University's Discovery Themes.

The region and the state also stand to benefit from this minor because science and engineering underpins innovation in the industries that drive the regional and state economies. Students will learn the fundamentals of the contributions of science and engineering to these sectors with an introduction to economic and trade theories. In addition, the work of scientists and engineers is often funded by the U.S. federal government: it is important for anyone seeking federal government budgeting to understand how this process works as well as the rationales for government funding of these activities, how budgeting is conducted, and how the government evaluates and accounts for these funds. Enhanced understanding of these dynamics will help to

improve the outcomes for the university and the state, while encouraging the development of an informed citizenry, which aligns with the mission of the Glenn College.

Relationship with Other Programs

The minor in Science, Engineering, and Public Policy is designed to complement other studies across campus, and as such, the program will have relationships with a number of other programs across the campus. The Glenn College has been actively coordinating with the College of Engineering to develop the curriculum studying science and engineering policy and the coursework for this minor was created in cooperation with the College of Engineering. Several departments in the College of Arts and Sciences have also expressed an interest in having a public policy program that supports a broader understanding of the sciences. Students in globalization studies or geography may also be interested in the interdisciplinary approach to the public policy issues being offered in this program. Students studying environmental policy and decision-making may also find the class beneficial to their studies.

This minor is similar to programs offered at other distinguished Colleges, including Cornell University, Duke University, Harvard University, Georgia Institute of Technology, Carnegie Mellon University, George Washington University, and the Universities of Colorado, Maryland, Michigan, and Minnesota. The curricula of these Colleges were studied carefully as we prepared the course offerings proposed here. This proposal takes into account the needs specific to Ohio and joins theses needs with some of the best ideas from other Colleges to craft relevant curriculum. Because of this, we anticipate that this minor will further strengthen the University's reputation and enhance the workforce readiness of our graduates.

Learning Goals/Objectives and Assessment of the Minor

Upon successful completion of this minor, students will be able to:

- Be familiar with theories and policies that inform and support investment, research, and development in science, engineering and innovation.Identify top theories of administration, governance, and development related to publicly funded science and engineering at national and international levels; critique the usefulness of existing theories of the contribution of science and engineering to economic growth.

- Gain knowledge about public policy as it relates to science and engineering and how to work with and for government in these sectors.
- Explore ways to improve public policies with regard to sciences, engineering, business and government nationally and internationally

The minor in Science, Engineering, and Public Policy will be reviewed each year by the College's Director of Undergraduate Studies. Faculty from the Undergraduate Curriculum Committee and SEPP minor advisory committee will assist. Evaluation criteria will include the ability of the program to 1) deliver a high quality educational experience to participating students; 2) attract enough students to demonstrate relevance and maintain financial stability, 3) achieve a satisfactory level of student completion within a reasonable time frame. The Glenn College will also conduct periodic review of the three foundational classes to ensure they are meeting the stated learning goals of the minor.

Administration and Resource Allocation

Advising: Student advising for this minor will be provided through the John Glenn College Office of Admissions and Student Services in cooperation with students' home program advisors.

Faculty resources: The Glenn College is home to the Battelle Center for Science & Technology Policy, and has several faculty members whose research focuses on science and technology policy, including one member who has a joint appointment with the College of Engineering. As a result, the College is at the forefront of science policy research and is in an ideal position to offer this minor in terms of both knowledge and ability to offer the courses that make up the core of the minor.

Advisory Committee: The Glenn College will coordinate the minor with other units on campus through an advisory committee that will be appointed by the Glenn College Director of Undergraduate Studies to supervise the curriculum of the minor. The committee will include representatives from Engineering, Arts and Sciences, and the Glenn College (as well as other units to be determined) that have shown an interest in an interdisciplinary minor in Science, Engineering and Public Policy.

Expected enrollments:

We expect to attract 15-20 undergraduates in the first year. With effort and outreach, we hope to attract additional undergraduate minors over the coming years towards a goal of 40 undergraduate minors by 2017-2018.

Requirements for the Minor

This proposal is fully aligned with the OSU policy for Undergraduate Minors:

> An undergraduate minor consists of a coherent curricular program designed to allow students to pursue academic interests that go beyond their major. Students pursue minors to complement their major's area of specialization, to better define themselves academically and to employers, to gain credit for classes previously taken that do not count towards a major degree, or merely to pursue other interests. In addition, some academic units require their students to obtain a minor.
>
> Students may take any minor in any college provided that they follow the curricular guidelines set by the college or unit that administers the minor. (April 2014)

Specific prerequisites are kept to a minimum. The intent of the program is to serve as an integrative experience for students who have studied some aspect of engineering, business, and the natural, physical, and social sciences and wish to broaden their understanding and their attractiveness to future employers. Inviting students from different disciplines to study public policy together will enhance their ability to integrate different points of view and to learn to communicate across disciplines. Guest speakers working at the intersection of science, engineering, and public policy will be invited to provide students insights into the types of skills and careers that are found at the nexus of these fields.

The minor consists of twelve semester credit hours composed of six credits of core courses from the John Glenn College of Public Affairs and a minimum of six credits of thematic courses in substantive areas of relating science, engineering, and public policy (e.g., Energy Policy). The thematic courses may be chosen from a previously approved list of courses, or students may petition to include relevant course(s) providing that they fall within the rules governing undergraduate minors. Such courses may, for example, be found in natural and physical sciences, engineering, and mathematics. Successfully petitioned courses may be added to the approved list of thematic courses if approved by the Glenn College Undergraduate Studies Committee. Please see the following draft advising sheet for detailed information on courses.

Science, Engineering, and Public Policy Minor

Contact Information
The John Glenn College of Public Affairs
110 Page Hall, 1810 College Road
292-8696
http://glenn.osu.edu

This minor introduces students to the governmental roles and responsibilities surrounding more than one trillion dollars of spending worldwide on science, engineering, and innovation. The majority of these funds are provided by governments, and as such, is a crucial aspect of public policy. National security, healthcare, transportation, energy, environment, and much more are supported by government spending. In addition to determining spending, items such as standards, regulations, patents, inventions, and medicines, result from this spending, all of which are determined by government policy. Students will become familiar with all aspects of this major government role. They will be able to:

- Name the key governmental and non-governmental organizations, ad hoc groups and advocacy networks that influence investment in science, engineering, and innovation.
- Identify top theories of administration, governance, and development related to publicly funded science and engineering at national and international levels; critique the usefulness of existing theories of the contribution of science and engineering to economic growth.
- Know authoritative sources of data on science and engineering funding and impact, and be able to use data to explain science, engineering and innovation activities.
- Critique sources of information that may assist professional careers in the public and nonprofit sectors in scientific, health, or engineering fields.
- Get excited about playing a role in national and international science and engineering issues.

Overview
The minor in Science, Engineering and Public Policy consists of 12 semester credit hours composed of six credits of core courses from the John Glenn College of Public Affairs and six credits of thematic courses in substantive areas of relating science, engineering, and public policy (e.g., Energy Policy).

Required Courses (Take two of the following)
Public Affairs/Environmental Engineering 5600: Science, Engineering and Public Policy (3)
Public Affairs 5610*: Innovation, Policy, and the Global Economy (3)
Public Affairs 5750/5750H: The Business Government Relationship (3)
*Proposed new course

Thematic Courses**
The goal of the thematic specialization is that all students emerge with knowledge about a substantive area of science, technology, or engineering policy. Students must select two courses from the thematic areas listed below. They may also petition to count other courses related to science or engineering policy that are not listed here.
** A student may take all three core courses, and one elective in a thematic area if desired

Land-Use Policy
ENR 3600 Management of Public Lands
ENR 4400 Law and Legal Process
ENR 5325 Public Forest and Lands Policy

Food and Agriculture Policy
PUBAFR 5800 US Food Policy
PUBAFR 5900 Food Systems Planning and the Economy
FDSCTE 5320 Food Laws and Regulations
AED ECON 4597 Population, Food, and the Environment
AED ECON 4002.02 Operations Research in Agribusiness and Applied Economics
FABENG 5320 Agroecosystems

Energy and Environmental Policy
ENR 2155 Energy and Environment
ENR 4000 Environmental and Natural Resources Policy
ENR 5451 Water Law
MATSCEN 5572 Materials for Energy Technology

Health Policy
BMI 5760 Public Health Informatics
PUBHEHS 3310 Current Issues in Global Environmental Health
PUBHLTH 4650 United States & International Health Care

Science/Engineering and Society
SOCIOL 3302 Technology and Global Society
ENGR 2362 History of American Technology
CIVENG 3080 Engineering Economics
ISE 2040 Engineering Economics
ISE 5840 Market Engineering and Applications
ENGR 5050 Humanitarian Engineering

Science, Engineering, and Public Policy minor program guidelines

Required for graduation: No

Credit hours required: A minimum of 12 credit hours

Transfer Credit hours allowed: No more than one half of the credit hours required on the minor

Overlap with GE: Permitted, up to 6 hours

Overlap with the major

- The minor must be in a different subject than the major
- Each minor completed must contain a minimum of 12 hours distinct from the major and/or additional minors (i.e. minors that require more than 12 hours may overlap those hours beyond 12 with the major or another minor)

Grades required

- Minimum C- for a course to be listed on the minor
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-pass cannot count on the minor
- A maximum of 6 credit hours may be at the 2000 level
- No more than 3 hours of courses graded Satisfactory/Unsatisfactory may count toward the minor

Filing the minor program form: The minor program form must be filed by the time the graduation application is submitted to the student's college/school/departmental advisor.

Changes to the minor: Once the minor program is filed in the college office, any changes must be approved by the John Glenn College of Public Affairs.

THE OHIO STATE UNIVERSITY

College of Engineering

122 Hitchcock Hall
2070 Neil Avenue
Columbus, OH 43210-1278

Phone 614-292-2651
FAX 614-292-9379
E-mail engosu@osu.edu

Date: 19 February 2015

To: Chris Adams
John Glenn College of Public Affairs

From: Ed McCaul
Secretary, College Committee on Academic Affairs (CCAA)

Subject: Concurrence on the Minor in Science, Engineering, and Public Policy

CCAA has reviewed and voted to provide concurrence to the John Glenn College of Public Affairs for its offering of a Minor in Science, Engineering, and Public Policy. If you have any questions concerning our concurrence please let me know.

JOHN GLENN SCHOOL OF PUBLIC AFFAIRS

THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

PUBAFR 5600 / ENVENG 5600: Science, Engineering, and Public Policy
Tuesday/Thursday, 3:55-5:15, Mendenhall Lab 0173
Spring 2015

Jeffrey M. Bielicki, Ph.D.
e-mail: bielicki.2@osu.edu

	Department of Civil, Environmental, and Geodetic Engineering:	*The John Glenn School of Public Affairs:*
Office:	483b Hitchcock Hall	310c Page Hall
Phone:	(614) 688-2131	(614) 688-2113
Office Hours:	To be determined	To be determined

Description:

Science and engineering underpin innovation, national security, and many other areas of public concern, including those related to Ohio State University's three discovery themes: (1) Energy and Environment, (2) Food Production and Security, and (3) Health and Wellness. But the contexts regarding (a) investments in science, engineering, and public policy and (b) the causes and consequences of the development of scientific knowledge and engineering innovations tend to be underappreciated by those involved. For example, on one hand, funding decisions are made by policymakers—many of whom lack technical training and an appreciation of the role of government in these arenas—and, on the other hand, scientists and engineers often develop knowledge and innovations as a result of, and have relevance to, public policy. Scientists and engineers who depend upon government funding can be empowered by understanding the process of investment, support for research, and the broader influence of their work. Similarly, policy-makers can benefit from understanding how science and engineering unfolds and how to use scientific and technical information for decision-making on matters of national and international importance. This course is designed to serve both perspectives—those making policy for science and engineering and those using science and engineering to inform policy—with a survey of policy, processes, and contexts for science, engineering, and innovation in the United States.

The class will present a history of the interactions between science, engineering, and public policy in the United States and in the context of global concerns (e.g. climate change, competitiveness), inquire into how various the federal government, universities, and corporations conduct and fund science and engineering, and explore how public sector interests and processes influence, and are influenced by, science, engineering, and public policy. Case studies devoted to the science, engineering, and policy of the University's Discovery Themes will help students apply policy analysis and developments in science and engineering to understand the relevance to real-world needs and policies.

Learning Objectives and Student Outcomes:

Through this course, you will:

- Examine the processes and contexts related to science, engineering, and innovation and understand how they reflect values, goals, and interests.
- Learn planning, assessment, evaluation, and public outreach skills for public sector administration and management systems in science and engineering policy at federal and state levels.

- Develop the capability to identify the relevance of advances in scientific knowledge and engineering developments to broader public policy issues.
- Synthesize the skills needed to become more effective grant seekers or managers in the public and nonprofit sectors in scientific, health, or engineering fields.
- Analyze cases that involve the interactions between science, engineering, policy, public choice, risk, and consequences in fields related to Ohio State University's Discovery Themes and other current issues.

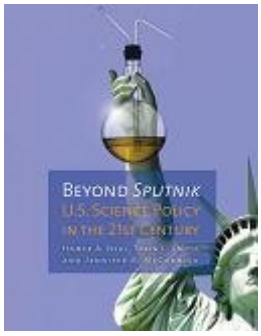
This course prepares engineering students to attain the following Accreditation Board of Engineering and Technology (ABET) educational objectives:

(a) an ability to apply science and engineering knowledge;
(c) an ability to operate within realistic constraints such as economic, environmental, social, political, ethical, and sustainability;
(d) an ability to function on multi-disciplinary teams;
(f) an understanding of professional and ethical responsibility;
(g) an ability to communicate effectively;
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
(i) a recognition of the need for, and ability to engage in, lifelong learning; and
(j) a knowledge of contemporary issues.

Classroom Participation and Conduct:

Advance reading and active participation are critical elements of success in this course (and in life). Lively and active classroom discussions are effective learning mechanisms for you and your peers (and thus incorporated into your class participation grade), so be prepared to contribute to the discussion during class. You are expected to engage in the learning environment that will be created within the classroom, and it is important for each student to engage deeply and critically with the material. Consequently laptop computers, tablets, and other devices will not be allowed unless specifically stated that they may be used to look up some information related to class, or you use them to take notes. If you choose to use such a device to take notes, the wireless capabilities must be turned off (otherwise known as "Airplane Mode"). Similarly, mobile phones must be turned off, unless you are awaiting an important phone call (e.g., your pregnant wife may be close to labor, the Chicago Cubs are about to win the World Series).[1] If you are expecting such a phone call, please tell the me before the start of class to get permission to leave your phone on (in vibrate mode, please). Courtesy and respect for your colleagues during class discussions will be enforced. Out of respect for my schedule and yours, class sessions will begin and end on time.

Course Requirements:



Textbook and Readings: There is one required textbook, and other required and optional readings will be posted to the Carmen website for this course. The required textbook is:

Homer Neal, Tobin Smith, and Jennifer McCormick. Beyond Sputnik: U.S. Science Policy in the Twenty-First Century. (Ann Arbor: University of Michigan Press, 2008) ISBN 0472033069http://www.science-policy.net/

You can access textbook information via the Barnes & Noble bookstore website: www.shopOhioState.com as well as from your BuckeyeLink

[1] Please don't test me... I have worked for numerous national laboratories within the United States and still retain some privileges. In other words, I have certain resources at my disposal that are not available to the public… ☺

Student Center. This information is disseminated by Barnes & Noble to all area bookstores. You may buy from a store of your choice and/or shop for books online. (Use ISBN# for searches.)

You are expected to read all of the readings prior to class. You will be assessed on your ability to demonstrate knowledge of the material through their in-class contributions and other assignments. You are welcome to draw from material in other classes to support course work. You are also encouraged to read broadly (e.g. New York Times, Scientific American, brainpickings.org), to watch The West Wing (on Netflix) and to bring relevant issues from current activities in public affairs to class to enhance our discussion.

Assignments

In addition to actively participating in the course, there will be a midterm exam, a final paper, and a class presentation based on that final paper.

Grading and Assignment Detail

Class Participation (every session, first half, 01/13-03/03):	10%
Class Participation (every session, second half, 03/05-04/23):	10%
Paper Proposal (due March 12th):	10%
Midterm (due March 3rd):	20%
Final Paper (due April 30th):	30%
Class Presentation (either April 21st or 23rd)	10%

Class Participation

There are few things more important to success in engineering, in public affairs, and in life than effective communication and the ability to conduct yourself in a way that ensures your message is clear. This class mixes lectures, case studies, teamwork, and discussions; it is a laboratory for you to refine your communication skills. You are expected to be prepared, to thoroughly process and synthesize information, and to incorporate your thoughts and experiences. In other words, you will need to be reading and thinking as we proceed through the semester. As a result, regular attendance and active participation are necessary. Read assignments for class, and be prepared for class discussion. I understand that everyone learns and participates in different ways, some of which may require more reflection than can occur during a class session. If this is the case, you have the opportunity take advantage of the Carmen discussion board.

Attendance is a necessity. If you need to miss class, please email me before that lecture. Absences without prior notification will be taken into account when determining your grade for class participation. There will be a number of guest lecturers throughout the semester, and full attendance is expected.

Your class participation will be assessed in two parts: You will receive a grade for your participation in the first half of the semester, up to March 3rd, and another grade for your participation in the second half of the course, March 5th through April 23rd. These assessments will each account for 10% of your final grade.

Mid-Term Exam:

There will be one mid-term exam during that will be based on the readings, lectures, and discussions. The midterm accounts for 20% of your final grade and will cover material up to the exam date. The mid-term will be a take-home assignment due on March 3rd.

Paper Proposal and Final Paper:

You will submit a final paper that you may produce on your own or as part of a team of up to three people. Your paper may present a policy issue, a case study, or a theoretical question about

science, engineering, and policy. I will provide examples of topics that you may choose, but you may also write a paper on your own topic. Those of you that have theses or other similar requirements for your program, I encourage you to find an aspect of that requirement that you can address in the context of our class.

It is important to start thinking about and developing your paper early in the class, and as such a three-page proposal for your final paper will be due on March 12th. This proposal accounts for 10% of your final grade, and will allow me to provide input and guidance on the quality and applicability of your intended topic.

Paper Proposals and Final Papers should be submitted in Times New Roman 12-point font, double-spaced, with 1-inch margins. Teams up to three students may work together, with the requirements as follows:

- One author: 2,500-3,000 words (~10-12 pages, at least 10 external references[2])
- Two authors: 4,500-5,000 words (~18-20 pages, at least 18 external references)
- Three authors: 6,000-6,500 words (~24-26 pages, at least 24 external references)

The Final Paper must reflect your approach and synthesis. The Final Paper will be graded on substance, argument and style, and reflect the objectives set out for the class (listed above), the paper requirements, and the basics of good writing[3]. A rubric detailing the grading criteria will be handed out in class.

The final paper is due on April 30th and accounts for 30% of your final grade. The mid-term exam and the final paper must be uploaded to the Carmen course website by 5pm of the day that they are due. The maximum number of points you can earn on the mid-term exam and on the final paper will be reduce by each day that they are late, according to the following schedule:

- One day late (5:01pm on the day it is due to 4:59pm the following day): 50% reduction.
- Two days late (5:01pm on the day after it is due to 4:59pm the following day): 75% reduction.
- Three days late (5:01pm two days after it is due to 4:59pm the following day): 90% reduction.
- Four days late: 100% reduction (i.e., you will get a score of 0).

Class Presentation:

On April 21st or 23rd, you or a member of your team, will make a class presentation on your paper. This presentation accounts for 20% of your final grade. Each member of a team will receive the same grade for the presentation of their team's paper. The presentations are scheduled at least a week before your Final Paper is due and provides you the opportunity to summarize and focus your Final Paper, and to incorporate the feedback that you will receive into your Final Paper. Depending on the number of presentations (i.e., papers), each presentation will be on the order of 10 minutes long. If you plan to use slides, this usually means no more than 10 slides.

Grading Scale:

Your performance in the course will be graded according to standard OSU grading policies.

Course Policies

Your work should be original. Academic and personal misconduct are defined and dealt with according to the procedures in the Code of Student Conduct: http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf. Avoid excessive quotation and paraphrasing of other's work with or without citation. While timely indication of

[2] the requirement for references does not include community-edited sources (e.g., Wikipedia).
[3] See the University's Writing Center handouts for clarification on what constitutes good writing, found online at: http://cstw.osu.edu/writingcenter/handouts

one's intent to be absent is expected, when possible, this does not waive the obligation to submit assigned work on time.

ACADEMIC INTEGRITY (ACADEMIC MISCONDUCT) [4]

The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Failure to follow the rules and guidelines established in the University's *Code of Student Conduct* may constitute "Academic Misconduct." Sanctions for misconduct could include a failing grade in this course and suspension or dismissal from the University.

In the Ohio State University's *Code of Student Conduct*, Section 3335-23-04 defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination.[5] Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct. Other sources of information on academic misconduct (integrity) to which you can refer include:

- *The Committee on Academic Misconduct*: http://oaa.osu.edu/coam.html
- *Ten Suggestions for Preserving Academic Integrity*: http://oaa.osu.edu/coamtensuggestions.html
- *Eight Cardinal Rules of Academic Integrity*: www.northwestern.edu/uacc/8cards.html

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me. I prefer to not have to make a decision on whether or not to bring someone up on charges of academic misconduct. For your sake and mine, please avoid coming close to the point where I have to make a decision.

Disability Services

If you are a student with disabilities that has been certified by the Office for Disability Services, you should let me know as soon as possible so that your needs will be appropriately accommodated. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 614-292-3307, TDD 292-0901; http://www.ods.ohio-state.edu/

Course Calendar:

Week	Date	Topic	Assignment
1	1/13	Introduction to U.S. Science, Technology, and Innovation Policy	Text, Chapter 1
	1/15		"Science: The Endless Frontier" on Carmen
2	1/20	U.S. Science Policy in the World: Leadership and Integration	Text, Chapter 2
	1/22		Text, Chapter 17
3	1/27	U.S. Science Policy-Makers and 'Stakers': Where is Policy Made?	Text, Chapter 3
	1/29		Text, Chapter 4
4	2/3	Conducting U.S. Science and Engineering Research in Universities, Industry, and National Laboratories	Text, Chapter 6, 8
	2/5		Text, Chapter 7
5	2/10	Case Study I: Science, Engineering, and Policy of	Readings on Carmen

[4] From: http://oaa.osu.edu/coamfaqs.html#academicmisconductstatement

[5] If you have read this, email me with the subject line "I have read the syllabus", and you will receive an extra two percentage points on your final grade. P.S… don't tell others about this. Let them find it (or not) on their own. This offer expires one week into the semester.

	2/12	Energy and Environment	Text, Chapter 11
6	2/17	Federal Funding and the Role of States	Text, Chapter 5
	2/19	Guest Lecture: Amad Ferzan Ohio Department of Transportation	Text, Chapter 9
7	2/24	Case Study II: Science, Engineering, and Policy of Food Production and Security	Readings on Carmen
	2/26		
8	3/3	Mid-Term Exam	
	3/5	Approaches and Tools for Policy Analysis I	Readings on Carmen (Bardach, Stokey and Zeckhauser)
9	3/10	Approaches and Tools for Policy Analysis II	Readings on Carmen (Bardach, Stokey and Zeckhauser)
	3/12	Discussion and Review	Paper Proposal Due
10		Spring Break: 3/16-3/20	Relax and Have Fun
11	3/24	Case Study III: Science, Engineering, and Policy of Health and Wellness	Readings on Carmen
	3/26		
12	3/31	International Science, Big Science	Text, Chapter 12
	4/2		Readings on Carmen
13	4/7	Ethics, Integrity, and Fraud in STI Research	Text, Chapter 14
	4/9		Reading on Carmen
14	4/14	Grand Challenges	Text, Chapter 19
	4/16	(and how to give effective presentations)	Text, Chapter 20
15	4/21	Student Presentations	
	4/23		
16		*Instructor available for papers consultation by appointment*	
	4/30		Final Paper Due

JOHN GLENN SCHOOL OF PUBLIC AFFAIRS
glenn.osu.edu

PUB AFRS 5750H
Business & Government Relationship

Section 5093
Wednesday and Friday, 11:10 to 12:30pm
Page Hall 0240

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COURSE OVERVIEW

Government and Business are inextricably linked in the United States. Public Policies, including regulations, taxes, and programs, have a large influence on the economy and the environment in which business operates. Likewise, the health and productivity of business impacts the economy, government revenues, and need for government services. In turn, both government and business are substantially affected by financial institutions and services.

This course is an 5000-level course exploring the relationship of government and business in the United States. As such, it is meant to be a bridging course to graduate course work. Thus, the material and depth of analysis will be reflective of this level of work. In addition, this course will be taught in a hybrid manner, with a substantial portion of the course being provided electronically.

This course first provides an introduction to the history and ideological foundations of capitalism and government. Second, it introduces the core needs of business and how these are affected by the public sector. Next, we will consider the role of government in the business environment and economy. We will also look at the mechanisms that businesses use to influence public policy. Course learning goals and objectives are pursued via lectures, written assignments, and class discussion of case studies and current events.

LEARNING GOALS AND OBJECTIVES

There are four learning goals and objectives for this course:

- Provide an overview of the relationship and important issues of government-business relations
- Provide you with an opportunity to research and prepare a research analysis of a company.
- Improve your ability to communicate ideas through written, oral, and online formats
- Provide you an opportunity to experience graduate-level work, including presenting your own work and critiquing another's work.

BASIS FOR ASSESSMENT

There are a total of 100 points in this class. Friday lectures will be held in person in Page Hall 240. Wednesday classes will be online (virtual). Online discussions and communications are an essential component to the success of the online component. Your grades will be based on the following exams and assignments:

Question Answers (27 points)

For each class, the student is responsible for submitting a short (max 1-page) summary of one of the assigned readings **before the beginning of the class period (i.e., before 11am on Wednesdays and Fridays)**. No late submissions will be accepted. Each answer is worth 1 percent of your final mark. Thus, to receive full marks, you must hand in your answer for each of readings. These answers are intended to be "easy" marks and to ensure that you can contribute to the online and class discussions.

Attendance and Participation (28 points)

In addition to the summaries, your attendance and participation in the classroom and online discussions are essential for the success of this class. Attendance and participation is based on how much you participate and how much your contribution adds to the class.

Company Analysis Paper (45 points)

The paper is meant to provide you with an opportunity to research a company and industry of interest to you and to examine its relationship with the different levels of government. A detailed rubric of the mark allocation for essays is appended to this syllabus. You will be graded on the quality of the writing and your inclusion of required content.

Your grade will consist of three components:
1. A 1-page proposal of the company and industry to be studied (5 percent)
2. An analysis of the company and its industry (8-10 pages; 15 percent)
3. A final paper (20-25 pages) including the addition of an analysis of the company to public policy and government and the integration of both analyses into a coherent final paper (15 percent).

A **1 page proposal of the company and industry** for your final paper is due on **Friday, January 30th** and will count for **5 points** of your grade. This summary should just provide a brief outline of the Fortune 500 company that you want to investigate and its industry. The summary should include:
(1) the name of the company;
(2) its history;
(3) the products and services it provides; and
(4) the industry (or industries) that it is a part of.

Your company and industry must be approved by the instructor for you to proceed.

A **8-10 page analysis** of the company you have selected and its industry is **due Friday, March 6th**. This analysis must include a discussion of the company:
(1) mission statement;
(2) financial statements;
(3) five year stock trend;
(4) strategic plan and goals;
(5) products or services;
(6) industry profile; and
(7) place of the company within its industry (e.g., leader, in decline, etc.).
The company and industry analysis is worth **20 points** of your final mark.

A **8-10 page paper** is due on **Friday, April 10th**. This paper analyzes the government relations of the company and industry presented in your first paper. It must include:
(1) an analysis of the different types of interactions that the company has with government (e.g., regulations; tax credits and incentives; grants; contracts, etc.);
(2) litigation;
(3) proposed and existing legislation; and
(4) lobbying activities.
The final paper is worth **20 points** of your final mark. You must present an insightful and cohesive analysis of the company, its industry, and its relations with government in the context of the course material, incorporating the analysis from your first paper. Please see the attached rubric for more details about how essays and papers will be evaluated in this course.

Transformation of numerical points to letter grades will correspond to this schedule:

A	93-100	C+	77-79.9	E <	59.9
A-	90-92.9	C	73-76.9		
B+	87-89.9	C-	70-72.9		
B	83-86.9	D+	67-69.9		
B-	80-82.9	D	60-66.9		

READINGS

Assigned readings will be available on the Carmen website for this class. Video links are listed below.

SCHEDULE

***Note**: Readings must be completed by the date next to which they are listed. Readings may be added, changed, or removed as necessary.

PART 1: Capitalism and Government

Week 1: Capitalism

January 14 – Introduction – no readings due

January 16 – The Foundations of Capitalism

1. Adam Smith, Wealth of Nations, Book IV, Chapter 1 and 2 (1a, 4a)
2. Why is the Wealth of Nations So Important? Adam Smith and Classical Economics, http://www.youtube.com/watch?v=pOksHxsR_2w (1a, 4a)
3. Karl Marx, The Communist Manifesto (1c, 4a)

Discussion Questions:

i. What was Adam Smith's important contribution? (1a, 4a)
ii. What was Adam Smith's invisible hand? (1a, 4a)
iii. Was Marx right about capitalism? (4a)
iv. Was Marx anti-capitalist? (4a)

Week 2: Growth of Capitalism

January 21 – American Capitalism

1. Labaree, The Boston Tea Party, pg. 1-53 (1b, 1c, 2a)
2. Roberts, America's First Depression, pp. 1-47 (2a, 2b, 2c, 2f, 2g)
3. McCraw, "American Capitalism," Introduction to American Capitalism, pp. 303-348 (3a, 6a, 6b, 6d, 6g)

Discussion Questions:

i. How did the founders' choices contribute to the growth of capitalism in the United States? (2a, 2b)
ii. Are individual men (and women) or institutions more important? (1a,4a, 6a)
iii. What is the role of government institutions in the foundations of capitalism and America? (2a, 4a)
iv. Are economic booms and busts a natural part of capitalism and the economy? (5g)

January 23 – The New Deal and the Welfare State

1. Keynes, The General Theory of Employment, Interest, and Money, Book 1 Chapters 1-3 (2b, 2c, 2g, 5g)
2. Hayek, A Road to Serfdom, Abridged Version (2b, 2c, 2g, 5g)
3. Of all of:
4. Masters of Money, Keynes, http://www.youtube.com/watch?v=2_yTyDIpOaQ
   Masters of Money, Marx, http://www.youtube.com/watch?v=f0UQ80s8bbM
   Masters of Money, Hayek, http://www.youtube.com/watch?v=tdDGUl7SncQ

Discussion Questions:

i. What is Keynes important contribution to the understanding of capitalism? (2a, 4a)
ii. What are some of the differences between Keynes and Hayek? (2a, 4a, 5c)

Week 3: The Welfare State and the Growth of Government

January 27 – Building the Welfare State

1. Smith, Building New Deal Liberalism, Chapter 2 (2b, 2d)
2. Gordon, "Rethinking the New Deal: The Logic and Limits of the U.S. Political Economy," New Deals: Business, Labor, and Politics in America, 1920-1935, Chapter 1 (1c, 2b, 2d, 3a)
3. Ferguson, The Rise and Fall of the New Deal Order, Chapter 1 (1c, 2a, 2b)

Discussion Questions:

i. What was the role of the government in the Great Depression? Did its actions improve or exacerbate the problem? (1c, 2a, 2b, 2c, 2d, 2f, 2g)
ii. Can we compare the Great Depression of the 1930s to the recent Great Recession? (1b, 2f, 2g, 4a)
iii. What is the proper role of government? (1b, 2b, 2c, 2d, 2f, 2g, 4a)

January 29 – Building the Welfare State

1. Collins, The Business Response to Keynes, 1929-1964, pp. 1-52 (1b, 1d)
2. Brinkley, The Rise and Fall of the New Deal Order, Chapter 4 (1b, 1d)

Discussion Questions:

i. How did business react to the Great Depression and the rise of the Welfare state? (1b, 1d)
ii. Is the welfare state still necessary? (1d, 2f, 2g)
iii. What is the proper role of government? (1b, 2b, 2c, 2d, 2f, 2g, 4a)

1 page proposal of company and industry due

Week 4: Rise of Neoliberalism

February 4 – Intellectual Foundations of Neoliberalism

1. Friedman, Freedom and Capitalism, pg. 1-36 (1a, 2a, 4a, 5b, 5c)
2. Harvey, A Brief History of Neoliberalism, Chapter 1 (4a, 4b)
3. Harvey, A Brief History of Neoliberalism (presented on youtube in 5 parts, starting with http://www.youtube.com/watch?v=PkWWMOzNNrQ) (4a, 4b)
4. Burgin, The Great Persuasion, pp. 1-11, 214-226 (1b, 1c, 2a, 4a, 4b, 5b)
5. Angus Burgin, http://www.youtube.com/watch?v=g0co8keFYwk (1b, 1c, 2a, 4a, 4b, 5b)

Discussion Questions:

i. What is neoliberalism? (4a, 4b)
ii. Are we still in a period of neoliberalism? (2a, 4a, 4b)
iii. What are the implications of neoliberalism? (2a, 2c, 4a, 4b)

February 6 – Neoliberalism

1. Stedman Jones, Masters of the Universe, Introduction, Chapter 2s and 6 (1b, 1c, 2a, 2b, 2c, 2d, 4a, 4b)
2. Stedman Jones, Masters of the Universe, http://www.youtube.com/watch?v=ehrjP2_ffPc
3. Roy, Fiscal Policy Convergence from Reagan to Blair: The Left versus the Right, Chapter 1 (1a, 1b, 1c, 1d, 2a, 2b, 2c, 2d, 2f, 4a, 4b)

Discussion Questions:

i. What was the role of intellectuals to the formation and perpetuation of neoliberalism? (2b, 2c, 2d, 2e, 5a)
ii. Has the welfare state fallen apart or failed? (1c, 2a, 2b, 4a, 4b)
iii. Can we afford a strong welfare state and still be globally competitive? (1c, 3b)

Week 5: Neoclassical versus Evolutionary Economics

February 11 – Neoclassical Economics

1. Wolf, Markets or Governments (2b, 2c, 2d, 2e, 5a)
2. Schumpeter, The Theory of Economic Development, Chapter 1 (1c, 5e)

Discussion Questions:

i. What is the current dominant microeconomic model and its assumptions? (4c, 5b)
ii. What did Schumpeter think about innovation? (4d)
iii. Is innovation compatible with the neoclassical economic model? (4e)

February 13 – Evolutionary Economics

1. Nelson and Winter, An Evolutionary Theory of Economic Change, pp. 3-50. (4d)
2. Interview with Sydney Winter, http://www.youtube.com/watch?v=4JK342oz-Gw
3. Carlota Perez, Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages, Chapter 1 (3f, 5e, 6d)
4. Technological Revolutions, Carlota Perez, http://www.youtube.com/watch?v=k8S0OSxWmuo&list=UUX6QveqMpgeaEIPJvndQ90Q&index=1&feature=plcp (5e)

Discussion Questions:

i. What is evolutionary economics? (4d)
ii. How does it compare to neoclassical economics? (4c, 4e, 5a, 5b)
iii. What is the role of economic models? (4e, 5d)
iv. What are the technological revolutions and what does this mean for today? (1b, 4d)
v. Are we moving into a new golden age or are we still in crisis? (4d)

PART 2: Business and Government

Week 6: Business Goals – Strategy and Shareholder Value

February 18 – Company Objectives and Strategy

1. Mickelthwait and Wooldridge, The Company, pp. Xiii-xxiii, 103-157 (6a, 6b, 6c)
2. Collins, Good to Great, Chapter 1 (6a, 6b, 6g)
3. Fisch, 2011, Who Really Makes Decisions in Your Company? Harvard Business Review (6b)

Discussion Questions:

i. How does a company become great? (6b, 6g)
ii. What are some of the biggest challenge to business executives and management today? (6b)
iii. What is the function of management in an organization? (6a, 6b, 6g)
iv. Should corporations be considered persons? (6c)

February 20 – Competitive Advantage

1. Michael Porter, Competitive Advantage, pp. 1-33 (6a, 6b)
2. Michael Porter on Competitiveness, http://www.youtube.com/watch?v=y5I_cnpP99U
3. Michael Porter, The Five Competitive Forces that Shape Strategy, http://www.youtube.com/watch?v=mYF2_FBCvXw

Discussion Questions:

i. How is a competitive advantage defined? (6b, 6g)
ii. How can companies sustain competitive advantage in today's marketplace? (6b, 6g)
iii. What is a SWOT analysis? (6b, 6g)
iv. What role does government play in supporting business competitiveness? (6b, 6g)

Week 7: Finance and Financial Statements

February 25 – Financial Statements

1. White et al., The Analysis and Use of Financial Statements, Chapter 1 and 4 (6e, 6f)
2. Or all of (for those of you who have not had exposure to financial statements, please do the reading and watch the videos):
   Balance Sheet, http://www.youtube.com/watch?v=mxsYHiDVNlk
   Income Statement, http://www.youtube.com/watch?v=Z7C4cz2HkeY
   Financial Ratios, http://www.youtube.com/watch?v=U5rRFh32gQU
   Financial Ratios, http://www.youtube.com/watch?v=dw0MZVSgz9M

Questions (Answer one):

i. What are the different components of a company's financial statement and what are important? (6e, 6f)
ii. What do companies need to be concerned about with respect to their financial statements? (6e, 6f)
iii. Which financial ratios does a company need to be most concerned about? (6e, 6f)
iv. What service do capital markets provide for companies? (3a, 6f)
v. How are capital markets measured? (3d)

February 27 – Finance and Companies

1. Krippner, Greta (2005), "The Financialization of the American Economy," Socio-Economic Review, Vol. 3, No. 2, pp. 173-208. (3a, 5c)
2. Global Crisis: The Financialization of Economic Life, https://www.youtube.com/watch?v=qt86WaovPd8
3. Levy, Freaks of Fortune: The Emerging World of Capitalism and Risk in America, pp. 1-20, 308-316
4. Lazonick, William (2012), "Financialization of the U.S. Corporation" (5e, 5f)

Discussion Questions:

i. What is financialization? (6a, 6b)
ii. What is the relationship between risk and financialization? (5f)
iii. What is the relationship between companies and capital markets? (3a, 3c, 6f)
iv. Is stock buyback, stock manipulation? Does this matter? (3a, 6e)

Week 8: Capital Markets and Debt

March 4 – Government Financing

1. Johnson and Kwak, White House Burning, pp. 3-14, 185-227. (1c, 2f, 3b)
2. White House Burning, http://www.youtube.com/watch?v=9v6_9GWdPFY (1c, 2f, 3b)
3. Wessel, Red Ink: Inside the High-Stakes Politics of the Federal Budget, pp. 33-68 (1c, 2f, 3b)
4. Wessel, Red Ink, http://www.youtube.com/watch?v=ol4iaLQl90A
5. Morgan, The Age of Deficits: Presidents and Unbalanced Budgets from Jimmy Carter to George W. Bush, pp. 1-40

Discussion Questions:

i. How is the federal government financed? (3b)
ii. What is the problem with the financial situation of the government currently? (3b)
iii. Why is balancing the federal budget so difficult? (1c, 3b)
iv. Is the government too big? Explain. (1c, 3b)

March 6 – Financing Government

1. Steinmo, Sven (2003), "The evolution of policy ideas: tax policy in the 20th century," British Journal of Politics and International Relations, Vol. 5, No. 2 (May 2003), pp. 206-236 (2a, 2h).
2. Citrin, Jack (1979), "Do People Want Something for Nothing: Public Opinion on Taxes and Government Spending," *National Tax Journal*, Vol. 22, No. 2 (supplement), pp. 113-129 (2a, 2h)

Discussion Questions:

i. How do governments raise tax revenues? (2a, 2h)
ii. What does Citrin say people want from taxes and government spending? (2a, 2h)
iii. How should the burden of taxation be determined? (2a, 2h)

8-10 page analysis of company and industry due

Week 9: Economic Growth and Innovation

March 11 – Economic Growth and Innovation

1. Kuznets, (1977), "Two Centuries of Economic Growth: Reflections on U.S. Experience," *The American Economic Review,* Vol. 67, No. 1, pp. 1-14 (3f, 4a)
2. Solow, (1956), "A Contribution to the Theory of Economic Growth," Quarterly Journal of Economics, Vol. 70, No. 1, pp. 65-94 (5e)
3. Romer, Paul M. (1986), "Increasing Returns and Long-Run Growth," Journal of Political Economy, Vol. 94, No. 5. (5e)

Discussion Questions:

i. Is continuous economic growth important? Explain your answer. (3f, 4a)
ii. What is the role of economic growth in government policy? (3f, 4a)
iii. How is economic growth best achieved? (3f, 4a)

March 13 – Innovation

1. Mazzucato, The Entrepreneurial State (1c, 2b, 2c, 2d, 5a, 5e)
2. Clayton Christensen, Disruptive Innovation, http://www.youtube.com/watch?v=rpkoCZ4vBSI
3. Mazzucato, The Entrepreneurial State, http://www.youtube.com/watch?v=uAz49-lchUw
4. Lazonick, The market or the state, http://www.youtube.com/watch?v=zKwGa_fWBmI
5. Lazonick, How government helps, http://www.youtube.com/watch?v=grbmtecULIk

Discussion Questions:

i. What is the role of government in innovation? Can this role be fulfilled by the private sector? (2b, 2c, 2d, 5a)
ii. What is the problem with companies using their profits for stock buybacks? Is this stock manipulation? Should stock manipulation be illegal? (2b, 2c, 2d, 5a)

There are no classes March 18th and 20th for Spring Break.

PART 3: Government and Business

Week 10: Banking and Business

March 25 – Capital Markets, Financial Institutions, and Politics

1. Zysman, Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Change, Part I, pp. 1-98. (1a, 1b, 1c, 1d, 1a, 3b, 3f, 5a)

Discussion Questions:

i. What the connection between markets and the government? (1d, 3b, 3d)
ii. What are the failures of government intervention? (2d)

March 27 – Governments and Markets

1. Zysman, Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Change, pp. 99-232 (1a, 1b, 1c, 1d, 1a, 3b, 3f, 5a)

2. Or all of:
   Commanding Heights Part 1, New Ideas, http://www.youtube.com/watch?v=D0OK2sGiZs0
   Commanding Heights Part 2, Agony of Reform,
   http://www.youtube.com/watch?v=o45rFuT8XwY
   Commanding Heights Part 3, The New Rules of the Game,
   http://www.youtube.com/watch?v=5Wu9FH4O1qY

   Discussion Questions:
   i. What is the role of government in the economy? (1c, 2b, 2c, 2d, 2f)
   ii. How much should the government stabilize the economy? (2f, 4f)
   iii. How much should the government mitigate the hardships of economic change and downturns? (1c, 2a, 2f)

Week 11: Banking and American Politics

April 1 – Capital Markets, Financial Institutions, and Politics

1. Zysman, Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Change, pp. 233-end (1a, 1b, 1c, 1d, 1a, 3b, 3f, 5a)
2. Or all of (unless done last week):
   Commanding Heights Part 1, New Ideas, http://www.youtube.com/watch?v=D0OK2sGiZs0
   Commanding Heights Part 2, Agony of Reform,
   http://www.youtube.com/watch?v=o45rFuT8XwY
   Commanding Heights Part 3, The New Rules of the Game,
   http://www.youtube.com/watch?v=5Wu9FH4O1qY

   Discussion Questions:
   i. What is the connection between finance and government? (2a, 2h, 3b, 3d)
   ii. What are Zysman's four views of the state? (2a, 2h, 3b, 3d)

April 3 – Politics and Banking

1. Minsky, Stabilizing the Unstable Economy, Chapter 1. (2f, 4e, 4f)
2. Hood, Rothstein, and Baldwin, The Government of Risk: Understanding Risk Regulation Regimes, pp. 3-35. (2e, 2f)

   Discussion Questions:
   i. What role should governments play in stabilizing markets? (1c)
   ii. What is the effect of the Federal Reserve continuing to purchase bonds and keeping interest rates very low? What will the ultimate effect be? (1c, 5c)
   iii. What is a risk regulation regime? (2e, 2f, 4f)
   iv. How does the government protect capital market? Should they be playing this role? Explain your answer. (1c, 2e, 2f)

Week 12: Government and Markets

April 8 – Markets

1. Sinclair, The New Masters of Capital, Chapter 1 (3a, 3b, 5f, 6e, 6f)
2. MacKenzie, An Engine, Not a Camera: How Financial Models Shape Markets, Chapters 1 and 9 (1a, 4e, 4f, 5d)
3. Bookstaber, A Demon of Our Own Design, pp. 207-261 (3e, 4e)

Discussion Questions:

i. What is the role of credit rating agencies? (1b, 4e, 4f, 5d)
ii. What is the relationship of credit rating agencies and the government? (1b, 4e, 4f, 5d)
iii. What is the relationship of credit rating agencies and capital markets? (1b, 4e, 4f, 5d)
iv. What is the role of models in finance and capital markets? (1a, 4e, 4f, 5d)

April 10 – Risk and Uncertainty

1. Kindleberger, Manias, Panics, and Crashes: A History of Financial Crises, Fourth Edition, pp. 1-48 (2e, 2f)
2. Bernstein, Against the Gods: The Remarkable Story of Risk, pp. 269-303 (2e, 2f)
3. Partnoy, Infectious Greed, Chapter 1 (3e, 3c)

Discussion Questions:

i. How is financial risk managed in our society? (1c, 2e, 2f, 4e, 4f)
ii. What role does government have in mitigating risk in society? (1c)
iii. Was the bailout and stimulus of the Great Recession a matter of privatizing benefits and socializing risks? Please justify your answer. (1a, 1b, 1c, 2a, 2f)
i. How much should the government mitigate the hardships of economic change and downturns? (1c, 2a, 2f)

Week 13: Regulation and Risk Bearing

April 15 – Regulation

1. Johnson and Kwak, 13 Bankers, Chapter 8 (1c, 2a, 2b, 2c, 2e, 2f, 2g)
2. Johnson and Kwak, 13 Bankers, http://www.youtube.com/watch?v=j9qO7kzGHt4
3. Barth, Caprio, and Levine, Guardians of Finance, Chapter 1 and 2 (2e, 2f)

Discussion Questions:

i. What is the role of regulation in our society? (2e, 2f)
ii. What was the failure of regulators before and during the Great Recession? (2d, 2e, 2f)
iii. What was the failure of companies during the same period? (3e, 6b)

April 17 – Regulation and Risk

1. Wessel, In Fed We Trust, Introduction and Chapter 14 (1c, 2e, 2f)
2. Wessel, Federal Reserve, http://www.youtube.com/watch?v=PyCuiO4_fkY
3. Moss, When All Else Fails: Government as the Ultimate Risk Manager, pp. 1-52. (1c, 2e, 2f)

Discussion Questions:

i. How do regulations reflect political and economic ideology? (2e)
ii. If government is the Ultimate Risk Manager, what should government do to protect itself? (1a, 1b, 1c, 2a, 2e)

Final Paper due

Week 14: Government and Business: Creating the Right Environment in a Democracy

April 22 – Job Creation and Economic Growth

1. Bruce A. Kirchhoff, Bruce D. Phillips,(1988), "The effect of firm formation and growth on job creation in the United States," Journal of Business Venturing, Volume 3, Issue 4, Autumn 1988, Pages 261-272 (3e, 6b)
2. Porter, Michael E. (1995), "The Competitive Advantage of the Inner City," *Harvard Business Review,* May-June 1995. (1c, 1d, 3e)

Discussion Questions:

i. What is the role of government in job creation? (1a, 1b, 1c, 2a, 2d)
ii. What are the regulatory impediments to job creation? (1c, 1d, 2e, 2f)
iii. What role should the government have in education and higher education? (1c, 1d, 2e, 2f)

April 24 – Crisis in the Markets

1. Reinhart and Rogoff, (2009), *This Time is Different*, Princeton, NJ: Princeton Univesity Press, to page 20. (1a, 1b, 1d, 2a, 3a, 5f, 5g)
2. Akerlof and Shiller (2009), *Animal Spirits: How Human Psychology Drives the Economy, and Why it Matters*, Princeton, NJ: Princeton Univesity Press, pp. 1-18. (3e, 3f, 6b)
3. Acemoglu and Robinson (2012), *Why National Fail: The Origins of Power, Prosperity, and Poverty*, New York, NY: Crown Publishers, Chapter 1. (1a, 1b, 1c, 1d, 2a, 4a)
4. Jeffrey Sachs, Paul Krugman, Soros on Financial Crisis, http://www.youtube.com/watch?v=80olSb5KU9g
5. Understanding the Financial Crisis, http://www.youtube.com/watch?v=DmNiRKuee1A

Discussion Questions:

i. What is the long-term effect of the Great Recession? (1d, 2f, 3a, 3b, 3f)
ii. Is Public Policy ideologically driven? (2a)
iii. Have we "solved" the financial problems that caused the Great Recession? (2f, 3a, 3b, 3e, 3f)
iv. Are we likely to have another financial crisis in the near future? (2f, 3a, 3b, 3e, 3f)
v. What policy tools does government have to deal with another major crisis? (1c, 1f, 2g)

IMPORTANT INFORMATION

ACADEMIC INTEGRITY (ACADEMIC MISCONDUCT)

The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Failure to follow the rules and guidelines established in the University's Code of Student Conduct may constitute "Academic Misconduct." Sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

In the Ohio State University's Code of Student Conduct, Section 3335-23-04 defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an "excuse" for academic misconduct.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

ADA Statement

Students who have documented any learning disabilities with the Office of Disability Services are encouraged to meet with the course instructors to discuss arrangements for any approved accommodations. Please contact the Office of Disability Services at 292-3307 if you have any questions. Students requiring modified versions of written materials (large print, Braille, tape, etc.), class modifications (e.g. American Sign Language), or an alternate format for submission of written materials, please privately contact one of the instructors. Every effort will be made to work with you to accommodate your specific learning needs.

Essay Marking Rubric

Marks	13-16	10-14	5-9	0-4
Rhetorical Awareness	Student persuasively articulates a clear purpose and recognizes the expectations that an audience or readership might have for the product or performance within a particular context.	Articulates a clear purpose, and shows some recognition of the audience and context for the product or performance.	Articulates purpose somewhat clearly, but is unpersuasive and does not adequately take into account potential audiences or contexts for the product or performance.	Purpose is unclear and the student shows little recognition of audience or context.
Personal and Productive Engagement with Subject	Student not only follows the basic requirements for an assignment, but demonstrates a serious, thoughtful and studied engagement with the project or performance.	Follows basic requirements for the assignment. While some components of the project may be lacking, the work demonstrates progress in central learning objectives during the period of the course	Only nominally follows basic requirements for the assignment, and shows a passing engagement with the project.	Does not follow basic requirements for the assignment, and shows little or no engagement with the project.
Creativity and Originality	Student articulates original ideas, positioning them within a range of differing perspectives. Moves beyond mere description and summary to analysis and critique.	States ideas that are original, and may reference a few differing perspectives. Does more than describe and summarize, but analysis and critique may not be sufficient.	States ideas that are obvious or cliché, offering few differing perspectives, if any. Does little more than describe and summarize the ideas of others.	Restates obvious ideas from one or two sources, and fails to reference differing positions. Merely describes and summarizes the ideas of others.
Central Claim supported by Appropriate Evidence	Student marshals appropriate evidence to support claims in sophisticated ways. Critically evaluates evidence and counter evidence, clearly documenting sources according to expected conventions and acknowledging intellectual debts.	Marshals appropriate evidence competently. Evaluates some evidence and counter evidence, and documents sources according to expected conventions.	Supports some claims with evidence, but fails to sufficiently evaluate that evidence or present counter evidence. May only use the bare number of sources required by the assignment. Sources may be documented incompletely or unclearly.	Fails to support claims with appropriate evidence or evidence is unclear or not relevant. Student takes evidence at face value and does not properly document sources.
Organization and Logic	Student arranges material in a clear, persuasive way that an audience or readership can follow. Does not resort to logical fallacies and the connections between points are evident and strengthen the overall claims of the work.	Arranges material clearly so that an audience or readership can follow reasonably well. The connections between most points are clear, though there are occasional gaps in thinking.	Fails to arrange material in a way that audiences or readers will follow easily. Several connections between points are unclear and there are several gaps in thinking.	Material is poorly organized, and audiences or readers may have a very hard time following the student's ideas and arguments. Connections between ideas are unclear and there are numerous gaps in thinking.
Effective Understanding and Application of Conventions	Student has carefully and thoughtfully proofread his or her work according to appropriate stylistic conventions. There should be few or no mistakes in spelling, grammar, word choice, and punctuation.	Work generally proofread, but some conventions have not been followed. There are more than a few mistakes in spelling, grammar, word choice, or punctuation, but these mistakes don't obscure the student's ideas.	Work has not been well proofread, and several important stylistic conventions are not followed. There are several distracting mistakes in spelling, grammar, word choice, or punctuation that may obscure the student's ideas.	Work has been poorly proofread, and stylistic conventions are not followed in any way. There are many distracting mistakes in spelling, grammar, word choice, and punctuation that obscure the student's ideas.

THE OHIO STATE UNIVERSITY
JOHN GLENN COLLEGE OF PUBLIC AFFAIRS

PUBAFR 5610
Innovation, Policy, and the Global Economy
2015-16

Tuesdays & Thursdays 12:45pm-2:05pm

Instructor:
Phone:
Email:
Office:
Office Hours:

Course Description

With the United States as a baseline, this course examines frameworks and theories of public administration, governance, and policy for science and engineering at the international level. The objective is view the knowledge system in a global context, to understand the institutions that govern it, and to understand how nations and regions interact with the global. Intergovernmental organizations such as the United Nations, the World Trade Organization, the World Bank, and others significantly affect national policy in science, engineering, and innovation. Many U.S. government agencies whose missions include research and development find themselves constrained or guided by intergovernmental policy; in some cases, these policies act as obstacles to trade or development. Intergovernmental organizations also have an interest in supporting and using S&T; the United Nations (including the Intergovernmental Panel on Climate Change), the World Bank, the OECD, and the International Telecommunications Union (ITU) all support or regulate science and engineering research, and innovative product development. This course will critique existing theories of global knowledge development and transfer, governance, and trade through the lens of science and engineering; challenges for national policy will be discussed along with the interests of nations in promoting and using science and engineering for innovation.

Prerequisites: junior, senior, or graduate status

Student Learning Goals

Upon the conclusion of this course students will:

- Critically assess theories of public policy and globalization, governance, and trade as they relates to science, engineering, innovation with a particular focus on economic growth and international development.

- Compare roles of scientific, engineering, and innovation institutions at the national and international levels that influence the direction of national-level public policy.
- Hone communication and analytical skills in public policy through active discussion and class projects.
- Gain professional skills needed to become more effective analysts, grant seekers or managers in the public and nonprofit sectors in scientific, health, or engineering fields.

Classroom Participation and Conduct

This class will include lecture time combined with classroom time spent on cases, projects, debates, discussions, and writing exercises. Reading and watching lectures in advance are critical elements of success in this course. Lively and active classroom discussions will be used to refine analytical skills for you and your peers, so be prepared to contribute to the discussion throughout the term. Various media will be used in and out of the classroom, including Twitter, Kahoot!, and Youtube. You will be engaged in an interactive learning environment and it is important to engage deeply and critically with the material. Laptops, tablets, and other devices will be allowed because you will be working with materials and with each other online, and use of media to communicate with others is encouraged. You may also use computers to take notes. Respect for your colleagues during class discussion is essential. Out of respect for your schedules and ours, class sessions will begin and end on time.

Course Requirements

Class Readings

Readings will be assigned from the following books. Many of the readings will be made available on Carmen. Since we will read only two of the books in full, these are bolded. The student does not need to purchase the other materials – these will be provided on Carmen.

National Identity: The Role of Science and Technology, C. Harrison and A. Johnson, eds., Osiris Journal Collection, Vol 24, University of Chicago Press, 2009.

The Gifts of Athena, Joel Mokyr, Princeton Univ. Press, 2002 ISBN 0-691-094483-7

Global Innovation in Emerging Economies, P. Reddy, Routledge Studies in Innovation, Organizations, and Technology, 2011. ISBN13:978-0-415-87966-8

***The New Invisible College: Science for Development*, C. Wagner, Brookings Press, Washington, D.C., 2008. ISBN 978-0-8157-9213-0**

***Earthly Politics*, S. Jasanoff, M. Martello, eds. MIT Press, 2008. ISBN: 9780262600590**

In addition, you will find required readings posted to the Carmen website for this course.

You are expected to read all of the readings prior to that week's class session. You will be assessed on your ability to demonstrate knowledge of the material through their in-class contributions and other assignments. You are welcome to draw from material in other classes to support course work.

Grading and Assignment Detail

Class Participation:	10%
*Quiz	10%
Writing assignment:	10%
*Midterm:	20%
Paper Proposal:	10%
Interview project (video or paper)	10%
*Final Paper and presentation	30%

* Graduate students will have additional questions on the quiz and midterm, and are expected to conduct more rigorous analysis in the individual papers.

Grading Scale

95 – 100	A	80 - 82	B-	68 – 69	D+
91 – 95	A-	78 - 79	C+	64 – 67	D
86 - 90	B+	73 - 77	C	63 & below	E
82 - 85	B	70 - 72	C-		

Class Participation

There are few things more important to success in public affairs (and life) than effective communication and developing the ability to conduct yourself in a way that ensures your message is clear and direct. This class will mix lectures, case studies, team work, and discussion; it is a laboratory for you to refine your communication skills. We expect you to be prepared, to thoroughly process information, and to synthesize it based on your experiences. In other words, you will need to be reading and thinking as we proceed through the semester. As a result, regular attendance and active participation are necessary. We expect that you will read assignments for class, and be prepared for class discussion. We recognize that everyone learns and participates in different ways, some of

which may require more reflection than can occur during a class session. If this is the case, you have the opportunity take advantage of the discussions that will be posted on the Carmen discussion board.

Classroom attendance is expected. Absences due to illness require a doctor's note, and without prior notification will be taken into account when considering your class participation grade. Also, if we have a guest attending class to guest lecture, we expect full attendance.

Assignments

You will undertake a series of tasks throughout the semester. In addition to actively participating in the course, you take a quiz (10%), complete a brief, analytical policy paper (10%), take a midterm exam (20%), conduct an interview with a campus-based scientist or engineer and report on it (either written paper, 5 minute talk, or video), complete a term paper (20%), and make a research-based presentation to the class (10%).

Writing Assignment-Policy Brief

This assignment involves writing a three-page single-spaced (1000 words) policy brief about a current event or issue in a subject related to innovation, policy, and the global economy. The policy brief will be written for the U.S. Department of State. It will cover the policy issue, the technical details, the conflict, options for action, and recommendations for policy. Subjects can include cybersecurity, cost and trade of natural gas, ocean drilling, pandemic prevention, trade in genetically-modified food, or "brain drain" of STEM talent. The assignment should be submitted to Carmen (10%).

Interview Assignment-Class Talk or Video

Many faculty members on campus have participated in global science, technology, or innovation projects. You will set up a time to interview one of these people about their experience. You will present the results of the interview in a brief paper (3 pages), a classroom talk (5 minutes) or a video (5 minutes). Papers and videos can be submitted to Carmen. (10%)

Project Topic

You will submit a written project topic for your final presentation and paper. The project description will present the research question or case study being undertaken, the approach you will use, the method of collecting information about the subject, and what you expect to show in your paper. The project topic can be one paragraph, or about 250 words, submitted on Carmen by class time. (10%)

Quiz, Exam and Final Paper

You will have one quiz early in the term for 10% of grade, and one class-based mid-term exam during the semester for 20% of grade. The mid-term exam will be essay-based, open-

book test given in class. It will be based on the reading material, class lectures, and discussion. If a student can demonstrate a reason why they cannot attend the mid-term, the possibility of a make-up test will be discussed.

Final Paper

Each student will submit his or her own final paper, or be part of a 2-person team paper. Your paper may present a policy issue, a case study, or a theoretical question about global issues related to science and engineering policy. Papers should be 12-15-page paper by single authors and 18-20 pages by two authors. Any figures, tables, or graphics should be in an appendix, not counted towards the total number of pages. Papers should be submitted in Times New Roman 12-point font, 1.5-spaced, with 1-inch margins. You must have at least 10 external references to support your arguments, not including community-edited sources (e.g.: Wikipedia). The paper must reflect your own approach and synthesis. The paper will be graded on substance, argument and style, reflective of the four objectives set out for the class (listed above), the paper requirements, and the basics of good writing.

Presentations

At the end of the course, you or your team will make a presentation to the class on your paper. The presentation should be ~10 minutes long (if you plan to use slides, this usually means no more than 10 slides). The presentation (slides plus verbal presentation) counts for 10% of grade.

A class lecture will focus on writing and presenting a good presentation. A rubric detailing the grading criteria for this portion of the deliverables will be handed out in class and it will be posted on Carmen.

Course Policies

Academic and personal misconduct are defined and dealt with according to the procedures in the Code of Student Conduct located at the following link –

http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf. Your work should be original. Avoid excessive quotation and paraphrasing of other's work with or without citation.

While timely indication of one's intent to be absent is expected, when possible, this does not waive the obligation to submit assigned work on time. Late work will be accepted with a penalty of 10 points for each day that it is late and will not be accepted for a grade of any kind later than one week after the assigned due date.

ACADEMIC INTEGRITY (ACADEMIC MISCONDUCT)

From: http://oaa.osu.edu/coamfaqs.html#academicmisconductstatement

The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all

students will complete all academic and scholarly assignments with fairness and honesty. Failure to follow the rules and guidelines established in the University's *Code of Student Conduct* may constitute "Academic Misconduct." Sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

In the Ohio State University's *Code of Student Conduct*, Section 3335-23-04 defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct. Other sources of information on academic misconduct (integrity) to which you can refer include

The Committee on Academic Misconduct web page: http://oaa.osu.edu/coam.html

Ten Suggestions for Preserving Academic Integrity:

http://oaa.osu.edu/coamtensuggestions.html

Eight Cardinal Rules of Academic Integrity: www.northwestern.edu/uacc/8cards.html

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact the instructors.

Accommodation Policy

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 614-292-3307, TDD 292-0901; http://www.ods.ohio-state.edu/

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Week		Topic	Readings	Assignment
1	8/25/2015	Introduction to global science, technology, and innovation		Brief bio and photo to professor
	8/27/2015	Understanding intergovernmental institutions and their role in science, technology, and innovation	Colglazer, Lyons (Carmen)	
2	9/1/2015	Science, engineering, and its creation of wealth - why do nations care?	Buchanan, Keohane (Carmen)	
	9/3/2015	Role of nations in supporting STI	Harrison, Johnson (Carmen)	
3	9/8/2015	Evolution of technology and trade theory related to STI	Helpman, pp. 25-35	
	9/10/2015	*continued*	Helpman, pp. 35-50	
4	9/15/2015	Political economy and institutions, frameworks for understanding	Mokyr Chapter 1 (Carmen)	Quiz
	9/17/2015	*continued*	Mokyr Chapter 2 (Carmen)	
5	9/22/2015	Globalization of research and innovation	Wagner, Chapters 1-3	
	9/24/2015	*continued*	Wagner, Chapters 4-7	
6	9/29/2015	Emerging economies in the global innovation system	Reddy Chapters 1 and 2	Policy brief paper due
	10/1/2015	*continued*	Reddy Chapter 3	
7	10/6/2015	Emerging economies, especially China	Wagner (Carmen)	
	10/8/2015	*continued*		
8	10/13/2015	Case: Intergovernmental organizations and their role in the environment: a case of protection of forests and soils	Ramakrishna & Davidson article (Carmen)	Speaker
	10/15/2015	*continued*	Sabatier & Zafonte article (Carmen)	
9	10/20/2015	Networks, hierarchies, and markets	Mid-term exam	
	10/22/2015	Exam review		
10	10/27/2015	Case: Global climate science and policy	IPCC review (Carmen)	Speaker
	10/29/2015	*continued*	IPCC review (Carmen)	Interview project due
11	11/3/2015	Case: "Big Science" (Fusion, astronomy, physics)	Chapters (Carmen)	
	11/5/2015	*continued*	Chapters (Carment)	
12	11/10/2015	International space projects and policy	Scott Pace lecture, Carmen; Reynolds article (Carmen)	Speaker
	11/12/2015	Earthly Politics	Jasanoff, Chapters 1-5	Project topic due
13	11/17/2015	Earthly Politics	Jasanoff, Chapters 6-9	
	11/19/2015	Earthly Politics	Jasonoff, Chapter 10-11	
14	11/24/2015	(Virtual Class)		
	11/26/2015	Thanksgiving		
15	12/1/2015	Final review of class materials and discussion of presentations	Giving a good presentation	
	12/3/2015	Student project presentations		
16	12/8/2015	Student project presentations		
	12/14/2015	Final paper due		Final paper