

Subject: Fwd: Syllabus

Date: Monday, May 6, 2013 1:37:13 PM ET

From: [REDACTED]

To: Mary Pearl, [REDACTED]

Ann Kirschner

Category: VIP

Here is the draft syllabus. Best -- Dave Petraeus

----- Forwarded message -----

From: [REDACTED]

Date: Mon, May 6, 2013 at 10:32 AM

Subject: Syllabus

To: D P [REDACTED]

[Course #]: The Coming (North) American Decade(s)?

Professor David H. Petraeus
City University of New York
Fall 2013

[teaching staff information, lecture schedule, contact information, etc.]

I. Course Description

This seminar will seek to answer the question, "Are we on the threshold of the new (North) American decade(s)? To do so, we will: survey the global economic situation; examine the ongoing energy, manufacturing, life sciences, and information technology "revolutions" in the United States; assess the implications each revolution has for the U.S. and the global economy; and determine the policies, practices, regulations, and laws needed to enable the U.S. to capitalize on the opportunities presented by the revolutions and thereby to contribute to the global economic recovery from the Great Recession.

II. Course Expectations and Requirements

This course is a undergraduate level discussion seminar for students interested in understanding how well-designed public policy can enable (North) America to capitalize on the tide of science and technology revolutions that will shape the coming decade(s). The focus of the course will be on the assigned readings, seminar discussions, written assignments, and oral presentations.

Student participation in the seminar and discussion groups will substantially enrich the learning experience. Effective class participation requires that students complete the assigned readings before coming to class. Students are encouraged to ask questions, share their insights, and treat their classmates' participation with professional courtesy.

Deleted: your

III. Grading

Seminar Participation:	20%
Discussion Group Participation:	20%
Policy Memo I – Policy Recommendation	20%
Policy Memo II – National Strategy	40%

IV. Class Schedule

Please note that the schedule below may change to accommodate student interest. We will do our best to give advance notice of any changes.

Week 0 [class date, approx. 8/28-9/6]: Introduction and Overview

- Introduction to the main ideas of the course
- Overview of course requirements, presentation schedule

Readings: Op-Ed by Petraeus and O'Hanlon

And think of some more short readings to get them into the intellectual areas on which we'll focus.

Deleted: none
Deleted: none

Week 1 [class date, approx. 9/9-13]: State of the Global Economy I

- The Great Recession
- Economic growth projections for the short-term and long-term
- Reasons for optimism and pessimism for (North) America
- The global drivers of growth

Readings: Please list these in the order that we want them to read the items; i.e., first the big picture – the Great Recession and the global situation, etc., as listed logically above...

1	The Economist. "Special report: America's competitiveness" 2013. http://www.economist.com/news/special-report/21573229-political-gridlock-may-be-bad-americas-economy-says-edward-mcbride	7 articles	34 pages
2	McKinsey Global Institute. <i>Growth and renewal in the United States: Retooling America's economic engine</i> . February 2011. http://www.mckinsey.com/insights/americas/growth_and_renewal_in_the_us	Executive Summary	14 pages
3	McKinsey Global Institute. <i>An Economy that works: Job creation and America's Future</i> . June 2011. http://www.mckinsey.com/insights/employment_and_growth/an_economy_that_works_for_us_job_creation	Executive Summary	8 pages
4	World Economic Forum. <i>Global Agenda Outlook 2013</i> . http://www3.weforum.org/docs/WEF_GAC_GlobalAgendaOutlook_2013.pdf	pp. 4 – 25	22 pages
5	National Intelligence Council. <i>Global Trends 2030: Alternative Worlds</i> . 2012. http://www.dni.gov/files/documents/GlobalTrends_2030.pdf	pp. i – xiv; 107 - 133	41 pages
6	Rivlin, Alice. "Growing the Economy and Stabilizing the Debt," Testimony to the U.S. Congress. 2013. http://www.brookings.edu/~media/research/files/testimony/2013/03/14%20debt%20crisis%20rivlin/14%20debt%20crisis%20rivlin.pdf	pp. 1-9	9 pages
7	Petraus, David and Michael O'Hanlon. "An American future filled with promise." <i>The Washington Post</i> . 2013		2 pages
	move to week 0		130 pages

Deleted: 7

Deleted: e

Week 2 [class date, approx. 9/16-20]: The Energy Revolution I

- Global energy resources and consumption
- Energy and the environment, climate change
- Energy security and geopolitics
- Might want to add an overview of oil and gas and nuclear and coal and alternatives for the U.S.... See Vivek C..

Readings:

1	Newell, Richard and Stuart Iler. "The Global Energy Outlook" in	all	36 pages
---	---	-----	----------

	<i>Energy & Security, 2nd edition: Strategies for a World in Transition.</i> 2013		
2	BP. <i>BP Statistical Review of World Energy.</i> 2012. http://www.bp.com/assets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2011/STAGI/NG/local_assets/pdf/statistical_review_of_world_energy_full_report_2012.pdf	pp. 1 – 5; skim rest	5 pages
3	International Energy Agency. <i>World Energy Outlook 2012.</i> 2012. http://www.iea.org/Textbase/npsum/weo2012sum.pdf	Executive Summary	7 pages
4	Yergin, Daniel. <i>The Prize.</i> 2003.	Ch. 26, 29	47 pages
5	Cropper, Maureen. “The Hidden Costs of Producing and Consuming Energy.” 2010. http://www.rff.org/Publications/WPC/Pages/The-Hidden-Costs-of-Producing-and-Consuming-Energy.aspx	all	3 pages
6	Intergovernmental Panel on Climate Change. <i>Summary for Policymakers.</i> 2007.	pp. 3-22	20 pages
7	Nordhaus, William. <i>A Question of Balance: Weighing the Options on Global Warming Policies</i>	Ch. 1	29 pages
8	GEA. <i>Global Energy Assessment – Toward a Sustainable Future.</i> 2012. http://www.ijasa.ac.at/web/home/about/news/Global-Energy-Assessment-now-available.en.html	pp. xii - xviii	7 pages
			154 pages

Week 3 [class date, approx. 9/23-27]: The Energy Revolution II

- Shale gas and liquefied natural gas exports
- Keystone XL

Readings:

1	NERA. “Macroeconomic Impacts of LNG Exports from the United States.” 2012. http://www.fossil.energy.gov/programs/gasregulation/reports/nera_lng_report.pdf	pp. 1 – 12	12 pages
2	Energy Information Administration. “Effect of Increased Natural Gas Exports on Domestic Energy Markets.” 2012. http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf	pp. 1 – 19	19 pages
3	MIT. <i>The Future of Natural Gas.</i> 2011. http://mitei.mit.edu/system/files/NaturalGas_ExecutiveSummary.pdf	pp. 1 – 19	19 pages
4	Wang, Zhongmin and Alan Krupnick. “A Retrospective Review of Shale Gas Development in the United States.”	pp. 1- 34	34 pages
5	Darmstadter, Joel and Alan Krupnick. “Putting Politics Aside: The Consequences of the Keystone XL Rejection.” http://www.rff.org/News/Features/Pages/Putting-Politics-Aside-The-Consequences-of-the-Keystone-XL-Rejection.aspx		2 pages
6	U.S. Department of State. “Draft Supplemental Environmental Impact Statement for the Keystone XL Project” http://keystonepipeline-	pp. ES1 – ES23	23 pages

	xl.state.gov/documents/organization/205719.pdf		
7	Juliano, Nick. "EPA finds State Dept.'s latest review 'insufficient,'" <i>Greenwire</i> . http://www.eenews.net/EEDaily/print/2013/04/23/1		3 pages
8	Lipschultz, Marc. "Historic Opportunities from the Shale Gas Revolution." KKR Report. 2012.	pp. 4 – 5	2 pages
			114 pages

Formatted Table

Please add the readahead I sent to Vivek C. I think, for the hearing on Natural Gas...

Week 4 [class date, approx. 9/30-10/4]: Discussion Groups Need to give more info here...

Week 5 [class date, approx. 10/7-11]: The Life Science Revolution I

- Scientific developments and the advancing frontier
- Genetic sequencing
- Synthetic biology and the integration of engineering and the life sciences
- Stem cells

Readings:

1	The Economist. "Special Report: Biology 2.0" 2010. http://www.economist.com/node/16349358	8 articles	34 pages
2	Deloitte. <i>2013 Global Life Science Outlook</i> . 2013 http://www.deloitte.com/assets/Dcom-Global/Local%20Assets/Documents/LSHC/2013GlobalLifeScienceSectorReport_112712.pdf	pp. 1 – 12	12 pages
3	Feero, Gregory, Alan Guttmacher, and Francis Collins. "Genomic Medicine – An Updated Primer." <i>New England Journal of Medicine</i> . 2010 http://www.genome.gov/Pages/Newsroom/Webcasts/2010ScienceReportersWorkshop/Panel1_GenomicMedicineAnUpdatedPrimer.pdf		11 pages
4	Nature. "Has the revolution arrived?" <i>Nature</i> . 2010		2 pages
5	Collins, Francis, Eric Green, Alan Guttmacher, and Mark Guyer. "A vision for the future of genomics research." <i>Nature</i> . 2003 http://www.genome.gov/Pages/About/vision.pdf		13 pages
6	Ledford, Heidi. "The Cancer Genome Challenge." <i>Nature</i> . 2010 http://www.genome.gov/Pages/Newsroom/Webcasts/2010ScienceReportersWorkshop/Panel5_TheCancerGenomeChallenge.pdf		2 pages
			74 pages

Week 6 [class date, approx. 10/15-18]: The Life Science Revolution II

- Drug development and biosimilars
- Personalized medicine and targeted therapies
- Vaccines
- Ethical issues

Readings:

1	Boston Consulting Group. "What Value-Based Health Care Means for Pharma." 2012 https://www.bcgperspectives.com/content/articles/biopharma_what_value_based_health_care_means_for_pharma/	pp. 1 – 6	6 pages
2	Daemmerich, Arthur. "U.S. Healthcare Reform and the Pharmaceutical Industry" HBS Working Paper, 2011. http://www.hbs.edu/faculty/Publication%20Files/12-015.pdf	pp. 1 – 36	36 pages
3	Presidential Commission for the Study of Bioethical Issues. <i>New Directions: The Ethics of Synthetic biology and emerging technologies</i> . December 2010. http://bioethics.gov/sites/default/files/PCSBI-Synthetic-Biology-Report-12.16.10.pdf	Executive Summary	17 pages
			59 pages

We obviously need to add more to the readings above, but this is my weakest area...

Original: Patriciaus 1/26/13 04:27 PM
Formatted Table

Week 7 [class date, approx. 10/21-25]: Discussion Groups

Week 8 [class date, approx. 10/28-11/1]: The Advanced Manufacturing Revolution I

- The role of manufacturing in economic growth
- Global trends in manufacturing
- Advanced manufacturing technologies
- Good topics, I think...

Readings:

1	Advanced Manufacturing Partnership. <i>Capturing Domestic Competitive Advantage in Advanced Manufacturing</i> . Steering Committee Report. 2012. http://www.whitehouse.gov/sites/default/files/microsites/ostp/peast_amp_steering_committee_report_final_july_17_2012.pdf	pp. 1 – 43	43 pages
2	World Economic Forum Report in collaboration with Deloitte Touche Tohmatsu Limited. <i>The Future of Manufacturing: Opportunities to drive economic growth</i> . 2012. http://www.innovationeasterncape.co.za/download/future_of_manufacturing_2012.pdf	pp. 3 – 5	3 pages
3	The Manufacturing Institute. <i>Facts About Modern Manufacturing, 8th Edition</i> . 2009. http://www.nist.gov/mep/upload/FINAL_NAM_REPORT_PAGES.pdf	pp. 1 – 52	52 pages
			98 pages

Week 9 [class date, approx. 11/4-8]: The Advanced Manufacturing Revolution II

- Labor policy, offshoring, outsourcing, and robotization
- Securing the manufacturing talent pipeline and the potential of immigration reform
- Industrial ecosystems and the business climate

- Onshoring and insourcing?

Readings:

1	Ezell, Stephen J. and Robert D. Atkinson. <i>The Case for a National Manufacturing Strategy</i> . The Information Technology & Innovation Foundation. 2011. http://www2.itif.org/2011-national-manufacturing-strategy.pdf	pp. 2 - 33	32 pages
2	MIT. <i>Report of the MIT Taskforce on Innovation and Production</i> . 2013. (Preview) http://web.mit.edu/press/images/documents/pie-report.pdf	pp. 9 - 30	22 pages
3	The Economist. "Special report: Outsourcing and offshoring" 2013. http://www.economist.com/news/special-report/21569572-after-decades-sending-work-across-world-companies-are-rethinking-their-offshoring	9 articles	35 pages
			89 pages

Probably an add a few more items above...

Week 10 [class date, approx. 11/11-15]: The Information Technology Revolution

- Big data and cloud computing
- Wireless, the rise of mobility, and the telecom industry
- Cybersecurity

Readings:

1	Mayer-Schonberger, Viktor and Kenneth Cukier. <i>Big Data: A Revolution That Will Transform How We Live, Work, and Think</i> . 2013.	Selected chapters, TBD	TBD
2	Crawford, Susan. <i>Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age</i> . 2012.	Selected chapters, TBD	TBD
3	BCG. <i>The Future of Telecommunications</i> . 2010.	pp. 1 - 7	7 pages
4	Akamai. <i>The State of the Internet</i> (Executive summary, Sections 1,7,8) http://www.akamai.com/dl/akamai/akamai_soti_q312_exec_summary.pdf	pp. 3 - 7; 28 - 38	16 pages
5	Schmidt, Eric and Jared Cohen. <i>The New Digital Age: Reshaping the Future of People, Nations and Business</i> . 2013.	pp. 3 - 31	29 pages
			52+ pages

Week 11 [class date, approx. 11/18-22]: Discussion Groups should we do a second IT revolution session?

Week 12 [class date, approx. 11/25-27]: Synthesis and Conclusions

- Cross-pollination between the "revolutions"
- Strategies for communicating with the public and advising policymakers
- Where do we go from here?
- We need to think about readings for Week 11; important week... could be fun, too!

Week 13 [class date, approx. 12/2-6]: Student Presentations

Week 14 [class date, approx. 12/9-13]: Student Presentations

V. Discussion Groups

During class at three points in the semester, the teaching assistants will lead a discussion group focused on a specific case study related to the most recent lectures. These classes will have additional required reading, but fewer total pages. Your participation on these days will be an integral part of your grade. Prior to these sessions, students are required to complete the additional reading and prepare a 1-page primer in preparation for focused discussion.

Week 4 – Energy Case

Possible topics: Keystone XL (e.g. Richard Vietor HBS case), shale gas (e.g. Rawi Abdelal HBS case; Noel Maurer HBS case), climate policy (e.g. Waxman-Markey debates)

Week 7 – Life Sciences Case

Possible topics: Stem cell research (e.g. Robert Simons HBS case), Gene therapy (e.g. Regina Herzlinger HBS case)

Week 11 – Manufacturing or Information Technology

Possible topics: Offshoring (e.g. Richard Vietor HBS case), telecommunication companies, big data

VI. Policy Memo I – Policy Recommendation

For the first policy memo, students will be assigned to argue a position to the White House Chief of Staff on a specific issue in one of the four “revolutions”. For this assignment students will draft a written memo and deliver a brief presentation to the class.

The memo should clearly lay out the context and importance of the issue, the recommended policy course of action, and the evidence and rationale for the recommended action. A list of possible topics follows, but students are also free to propose additional policy issues; however topics not listed below must be approved by the professor 2 weeks prior to your scheduled presentation.

In the first two weeks of the course, students will sign up for a day to give a 7 minute presentation of their policy memo to the class (either Week 3, 6, 9, or 10). A written memo, 4-6 pages in length, double-spaced, 12-point Times New Roman, is also due on the day of the presentation.

Students should draw heavily from the assigned readings and class discussions, but should also feel free to consult additional credible sources. The policy memos should strive for realism in all manners *except* these memos should also include citations for all referenced material.

Suggested Policy Memo Topics

Energy

- Should the Keystone XL pipeline permit application be approved?
- Should exports of natural gas from North America be encouraged or discouraged?
- Should offshore oil drilling in the Gulf of Mexico be encouraged or discouraged?
- Should federal policy be adopted to reduce greenhouse gas emissions?

- Should federal renewable energy subsidies be extended?

Life Sciences

- The United States' unique insurance system has subsidized drug development over the last half century. With the advent of healthcare reform and a changing payments system, how do you see the role of the United States as driver of innovative therapies evolving? Should the rest of the world play a more active role?
- How should federal policy encourage the development of new drugs?
- Should federal policy encourage the proliferation of generic drugs?
- In the wake of the Affordable Care Act, could additional healthcare reform enable greater utilization of recent life sciences breakthroughs?
- What new ethical issues in the life sciences does federal policy need to address?

Advanced Manufacturing

- How can the federal government foster innovation in advanced manufacturing?
- Should the federal government implement immigration reform that specifically favors immigrants with manufacturing skills?
- How can federal policy increase the flow of domestic workers prepared for advanced manufacturing jobs?
- What should the role of the federal government be in fostering an "industrial ecosystem" and desirable climate for business?

Information Technology

- How can citizens control the disclosure and dissemination of their personal information in a digital age?
- Compare and contrast perceptions of usage of personal information/data when used by the government for security and law enforcement versus by companies for targeted advertising
- Identify three enduring issues or concerns of Internet governance that a Senate staffer drafting the charter for a "Federal Internet Commission" should be sure to enshrine in an authorizing statute?
- What role should the government play in subsidizing or mandating the development of a nationwide broadband infrastructure? Should there be different rules for wired and wireless? How many competitors are needed to ensure a competitive yet not-unnecessarily-duplicative marketplace?

VII. Policy Memo II – National Strategy

For the second policy memo, students will be tasked with developing a national strategy pertaining to a major area of science and technology (S&T) policy for a Presidential cabinet briefing. The memo should argue how well-designed federal public policy in the next 3-5 years could enable (North) America to capitalize on the possibilities afforded by the chosen S&T area.

The four S&T "revolutions" that the course focused on (energy, life science, advanced manufacturing, and information technology) may be chosen for the final project, but students should go beyond the assigned readings in developing their presentation by consulting additional resources. If students choose a different topic area, they must receive approval from the professor by November 1st.

The final presentations should first convey the opportunities and challenges in the chosen S&T area and then offer up to five near-term, practical policy recommendations. During the final two weeks of the semester, students will give a 20 minute presentation and submit a 12-15 page, double-spaced, 12-point Times New Roman memo. GOOD. I think! ☺