

THE GEORGE WASHINGTON UNIVERSITY

IAFF 290.23

Forward Engagement: Study of Long-Range Developments as Factors in Contemporary National Policy

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Fall Semester 2006
Tuesdays, 5:10pm – 7:00pm
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Class meets: 9/5, 9/12, 9/19, 9/26, 10/3, 10/10, 10/17, 10/24, 10/31, 11/7, 11/14, 11/21,
11/28, 12/5, 12/12 (final presentation; tentative).

Note: All examinations, reports, and other graded work products and assignments are to be completed in conformance with The George Washington University Code of Academic Integrity.

Course Mission Statement:

The rate of major historical change appears to be accelerating, in ways that could challenge our democratic society's ability to perceive events in time to debate and decide upon appropriate responses. If so, then there is a need to combine methods of forecasting with mechanisms for policy making, to create a process that could be called "Forward Engagement." The *basic premise* of "Forward Engagement," is that early awareness and early preparation for potentially major events is preferable to awaiting their unambiguous onset. The first "*corollary*" of Forward Engagement is that we have the means to approach policy-making in this manner.

Students will explore long-range trends and events in science/technology, economics/environment, defense/security, and governance/society that could have a major impact on the United States and on the world in general, in the course of their careers. Emphasis will be placed, this semester, on the search for trends that are not only of potentially major consequence, but are more consistently longer-range. Participants in this course will explore whether such events could prove particularly challenging to democratic governance. They will also analyze ways in which it would be possible, starting now, to modify policy in

the hope of favorably influencing the course and impact of these developments. They will consider ways to improve the capacity of the government of the United States to perceive and respond to the accelerating rush of future events.

Finally, in the last phase of the course, students will apply what they have learned in a specific scenario (details to be provided separately) that will engage them in the role of the staff of the House Annual Commission on Forward Engagement, preparing one of its periodic survey briefings for the House of Representatives. To do this, they will be asked—as have students in past semesters—to draw upon the work of previous classes, improved by their own insights.

Methodology:

Readings, lectures, guest speakers, contact with experts, class discussion, individual and group work.

Grading Output:

Individual papers; group papers; one final collective class paper and briefing. Briefing is to be delivered to an invited panel of guests who have held a senior policy-level responsibility in government. Class performance is also taken into consideration.

Course Structure

The course is broken into five phases:

Phase I: Orientation and Introduction to Forecasting **(Sessions 1-4, from 9/5-9/26)**

The objective of this phase is to familiarize students with Forward Engagement in general, and to introduce them to basic concepts relating to the field of Futures Studies, including standard approaches to forecasting. Students will produce short, individual papers that examine applications of forecasting to past, current or future issues. They will be asked to focus on the limitations as well as the particular capabilities of different approaches, and to spot ways in which these limitations can introduce not only insight, but serious error. This segment of the course will include an initial period for read-in time, for which a “welcome kit” of selected readings on CD is provided, along with the formal reading list.

Phase I Readings:

Cornish: *Futuring: The Exploration of the Future*

Loescher et. al: *Proteus: Insights from 2020*

Halal: Delphi <http://home.gwu.edu/~halal/Articles/articles.html> (case sensitive)
<http://www.techcast.org/>

Peterson: *Out of the Blue: Wild Cards and Other Big Future Surprises*

Schwartz: *The Art of the Long View: Planning for the Future in an Uncertain World*

Mazarr: *Global Trends 2005 (recommended)*

Wagner: *Foresight, Innovation, and Strategy: Toward a Wise Future (recommended)*

Phase I Class Schedule

- **SESSION #1 – September 5:** Discussion of objectives and organization of the course. Brief explanation of the general Forward Engagement process by representatives from the previous class. Organization of the class into four working groups: science and technology; economics and the environment; defense and security; and governance and society. Selection of class leaders.

First work interval (from September 6 to September 11): Students read into the Welcome Kit and course materials. Students meet for individual appointments with Prof. Fuerth in the opening weeks—arrange through Justin Zorn.

- **SESSION #2 – September 12:** Presentation by professor on forecasting in general, and then on prediction and projection as specific methods. Introduction of the STEEP method for cross evaluation.

Second work interval (from September 13 to September 18): Students prepare individual papers on policy applications, present or future, of Prediction and Projection. Students can draw upon papers from earlier classes for reference. **Papers are to be e-mailed to esialsf@gwu.edu by noon on September 18.**

- **SESSION #3 – September 19:** Class discussion with professor of student papers on Prediction and Projection. Presentation on Delphi method and Scenario by Prof. Fuerth.

Third work interval (from September 20 to September 25): Students prepare individual papers on policy applications, present or future, of Delphi method and Scenarios. **Papers are to be e-mailed to esialsf@gwu.edu by noon on September 25.**

SESSION #4 – September 26: Class discussion of papers on Delphi Method and Scenarios. Introduction to the concept of Future Contingencies of Interest (FCIs) by Professor Fuerth.

Fourth work interval (from September 27 to October 2): Students read FCIs from work of earlier classes and National Science Foundation report on “Convergence.” NOTE: Each Working Group will review portions of the National Science Foundation report that are appropriate to its field of interest.

Phase II: Identifying Future Contingencies of Interest (FCIs) (Sessions 5-7, from 10/3-10/17)

During this portion of the course students will research and write about possible major future developments, selected by themselves in terms of magnitude of societal importance, and need for proactive, anticipatory response. Students can build on earlier findings by their predecessors. Concept of convergent FCIs will be developed.

Phase II Readings:

National Science Foundation Report on Convergence

Weblink: <http://www.wtec.org/ConvergingTechnologies/> (case sensitive)

(Prof. Fuerth's guide will be made available in class or over email)

Kurzweil: *The Age of Spiritual Machines* (**recommended**)

Dyson: *The Sun, The Genome & The Internet* (**recommended**)

Fukuyama: *Our Post-Human Future* (**recommended**)

Phase II Class Schedule

- **SESSION #5 – October 3:** Class discussion of earlier work on FCIs by previous groups. Presentation by Professor Fuerth on complexity and nodes.

Fifth work interval (from October 4 to October 9): Students prepare individual papers on FCIs. Paper is to be e-mailed to esialsf@gwu.edu by **noon on October 9.**

- **SESSION #6 – October 10:** Discussion of student papers on FCIs. Presentation by Professor Fuerth on the concept of convergence.

Sixth work interval (from October 11 to October 16): Students prepare an advanced matrix, incorporating convergent FCIs. Paper is to be e-mailed to esialsf@gwu.edu by **noon on October 16.**

- **SESSION #7 – October 17:** Class discussion of advanced matrix. Presentation by professor on overall nature of policy and governance and on methods for approaching statements of policy by first identifying issues.

Seventh work interval (from October 18 to October 23): Students review earlier papers on policy by previous classes.

Phase III: Identifying Policy Issues Relating to FCIs. **(Sessions 8-9, from 10/24-10/31)**

During this phase, students will shift from considering what might happen (forecasting) to what ought to happen (policy). They will also begin to distinguish between relatively neutral, non-partisan statements of “**policy issues**” as compared to policy recommendations.

Phase III Readings:

To be provided by the Interactivity Foundation.

Phase III Class Schedule

- **SESSION #8 – October 24:** Presentation of policy issues on science/ technology and economics/environment. Possible guest speakers.

Eighth work interval (from October 25 to October 30): Students prepare individual policy papers on science/ technology and economics/environment issues. **Papers are to be e-mailed to esialsf@gwu.edu by noon on October 30.**

- **SESSION #9 – October 31:** Review of papers on science and technology and economics policy issues. Presentation on defense/security and governance/society issues. Guest speaker.

Ninth work interval (from November 1 to November 6): Students prepare individual policy papers on security and governance issues. **Papers are to be e-mailed to esialsf@gwu.edu by noon on November 6.**

Phase IV: Focus on Methods for Policy/Forecasting Integration (Sessions 10-11, from 11/7-11/14)

Special attention will be paid to the findings of the last four classes (fall '04, spring '05, fall '05 and spring '06, all focused on the Congress). These recommendations will be central elements of the last phase of the course, when students play out a scenario as members of a Congressional Forward Engagement process embodying proposals for a special new cycle of legislative activity.

Phase IV Readings

Waldrop: *Complexity: The Emerging Science at the Edge of Order & Chaos*

Rejeski: *Government Foresight: Myth, Dream, or Reality?*

Lempert: *Shaping the Next One Hundred Years*

Fuerth: *Strategic Myopia: The Case for Forward Engagement*

Welcome Packet readings on Organization & Complexity

Bar-Yam: *Making Things Work (recommended)*

McCarthy et. al., *Network Logic: Who governs in an interconnected world(recommended)*

Heller: *Who Will Pay? (recommended)*

Crichton: *Prey (recommended)*

Phase IV Class Schedule:

- **SESSION #10 – November 7:** Discussion in class of papers on defense/security and governance/society. Presentation by Professor Fuerth on approaches to integration of forecasting and policy, networking, and organizational adaptation to complexity.

Tenth work interval (from November 8 to November 13): Students review past papers on integration and prepare to present (orally) their preliminary conclusions on a Forward Engagement mechanism. Conclusions should respond to the terms of reference given them at the beginning of this semester, in the “scene-setter” memo.

- **SESSION #11 – November 14:** Students to conduct discussion and critiques of earlier proposals for institutional mechanisms to blend forecasting and policy. The focal point of this discussion will be student conclusions as to process and mechanisms for Forward Engagement. Class will be joined by graduates of earlier semesters, who will discuss their experience with the final paper and presentation (Phase V).

Phase V: Preparation of Final Paper and Presentation. (Sessions 12-15, from 11/21-12/12)

In this phase, students will shift completely into group mode, playing out a scenario, in the course of which they will operate as the staff of HACFE – the (notional) House Annual Commission on Forward Engagement, to prepare and deliver a report to members of the Congress (retired). Students will draw upon their own earlier work for substance, and they will follow (and where necessary, interpret) recommendations developed by the Fall 05 class for process. Details are provided in separate message on scenario, provided by professor.

Eleventh work interval (from November 15 to November 20): The class prepares a loose outline of its overall class paper, working under the direction of the class leader. **This paper should be e-mailed to esialsf@gwu.edu by noon November 20.**

- **SESSION #12 – November 21:** Discussion of dense outline with professor.

Twelfth work interval (from November 22 to November 27): The class prepares a dense outline of overall paper. **Draft is to be e-mailed to esialsf@gwu.edu by noon November 27.**

- **SESSION #13 – November 28:** Discussion of first draft with professor.

Thirteenth work interval (from November 29 to December 4): Students prepare first full-up draft of overall paper. **This paper should be e-mailed to esialsf@gwu.edu by noon on December 4.**

- **SESSION #14 – December 5:** Discussion of second draft paper with professor.

Fourteenth work interval (from December 6 to December 10): Students complete work on final paper, prepare executive summary and presentation. **This paper is to be e-mailed to esialsf@gwu.edu by Midnight on Monday, December 10.**

- **Session#15 – December 12 (Tentative): Final Presentation by Students to Invited Guest Panel** (Presentation will be scheduled to best accommodate potential panelists; more information will follow throughout semester)

Key Assignments & Dates:

All assignments (excluding final paper) are due by Noon on the day before class (Mondays) at esialsf@gwu.edu; any change in due dates will be announced in class or over email.

Individual case studies on policy applications of Prediction and Projection – September 18
Individual case studies on policy applications of Delphi method & Scenarios – September 25

Individual papers on selected FCIs – October 9
Class group paper and matrix on FCIs, nodes and complexity – October 16

Science/technology group members prepare individual paper on policy issues – October 30
Economics/Environment group members prepare individual paper on policy issues – October 30

Defense/Security group members prepare individual paper on policy issues – November 6
Governance/Society group members prepare individual paper on policy issues – November 6

Loose outline of final report – November 20
Dense outline of final report – November 27
First full draft of final report – December 4

Complete final report w/ executive summary and PowerPoint – December 10
Final Presentation – December 12