THE GEORGE WASHINGTON UNIVERSITY

IAFF 290.14

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

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Class meets: 1/13, 1/27, 2/3, 2/10, 2/17, 2/24, 3/3, 3/10, 3/24, 3/31, 4/7, 4/14, 4/21, 4/28, Final Date TBD

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.

Please note that, while core requirements and grading standards are set, elements of this syllabus may evolve as the semester progresses. Student feedback is encouraged.

Course Mission Statement:

The rate of major historical change is accelerating, in ways that challenge the capacity of democratically governed societies to adapt. To offset this trend, it is vital to combine methods of forecasting with mechanisms for policy making. I call this process "Forward Engagement." The first principle of "Forward Engagement," is to encourage early awareness of potentially major trends or events, in order to support earlier actions designed shape them. The objective of this course is to explore how this might be done.

Students will:

- Explore basic forecasting methodologies.
- Apply these methods for the study of potentially major trends and events in science/technology, economics/environment, defense/security, and governance/government.
- Examine complexity theory as a means for understanding interactions among simultaneously unfolding events.
- Examine network theory as a basis for considering how to boost the performance of government in the presence of complex events.
- Examine ways in which to meld long-range assessment and policy, including concepts developed by their predecessors in this class, as well as by various ongoing projects promoted by NGOs.
- Participate in a scenario-based exercise to develop and demonstrate their own approach to Forward Engagement, as applied to a major public issue, including both its domestic and international dimensions.

Methodology:

Readings, lectures, class discussion, individual writings, group work, guest speakers, and **self-initiated** contact with experts.

Grading Output:

Grades are based on individual student papers, group papers, one final collective class paper, and a power-point briefing. The briefing is to be delivered to an invited panel of guests, including some who are theoreticians, but may, as in previous classes, include others who have held a senior policy-level responsibility in government. Class performance is also taken into consideration.

Each assignment is due by noon on the day before the corresponding class session. Papers should be emailed to FEpapers@gmail.com; any change in due dates will be announced in class or over email. ***Please be sure to include your name, the date and assignment number on each submission*.** Expectations for each assignment appear on the following pages.

Work Schedule:

The course is arranged in four interlocking blocks, presented below. The presentation of each block begins with a statement of premise, followed by: a layout of the subject matter to be covered in each lecture; work assignment for the intervals of time between lectures, and advice as to the recommended sequence of readings. Where readings are concerned, students will have their own methods. I am suggesting, however, which materials are "best read" as of a certain date.

Block I: Orientation and Introduction to Forecasting and Futuring

***Premise**: Accelerating events are threatening to overtake the response time of democratic systems of governance. To offset this, we need to make more effective use of forecasting methods in order to shorten our response time. This section surveys standard and advanced forecasting methods*. (Futuring will be described here as the ability to think flexibly about alternative futures, as opposed to forecasting, which seeks to identify specific events and/or trends.)

SESSION #1 – Jan 13: Discussion of objectives and organization of the course. Discussion of methodology. Organization of the class into four working groups: science and technology; economics and the environment; defense and security; and governance and society. Establish a "scanning" process (systematic search of publications for ideas about longer-range events). Begin selection of class leader and working group chairs (conclude this during the second session).

First work interval **(Jan 13 – Jan27):** Students explore the Welcome Kit (a CD containing selected readings organized by theme). Students are invited to meet individually with Prof. Fuerth in the opening week—arranged through Evan Faber.

SESSION #2 – Jan 27: First of two presentations by professor on forecasting methodologies, starting with an overview of the field of futures studies, and then focusing on the first two of four basic methods -- prediction and projection

- ***Second work interval*** **(Jan 27 –Feb 3):** Students prepare individual papers on Prediction or Projection (per individual choice). Papers should explore the use of the selected forecasting method in the development of a policy issue. Papers may examine an actual issue, whether in the past or ongoing. Another option is for students to construct and examine a hypothetical, as opposed to an historical case. Students can draw upon papers from earlier classes, for ideas. These papers can be found on Blackboard.
- ***Expectations for Assignment#1:*** Short, 3-4 pp, papers. Assignment is designed to build awareness of how, by their nature, forecasting methods can shape perceptions of events. The only constraint on choice of topic is that students must pick examples that are pertinent to their working groups. Papers are to be e-mailed to **FEpapers@gmail.com by noon on Feb 2.**

Best read by the end of this interval:
Cornish: *Futuring*: *The Exploration of the Future*
Peterson: *Out of the Blue: Wild Cards and Other Big Future Surprises*

SESSION #3 – Feb 3: Class discussion with professor of student papers on Prediction and Projection. Professor presents the third and fourth basic forecasting methods -- Delphi method and Scenario. Overview of advanced methods: e.g. mathematical, agent-based models.

- ***Third work interval*** **(Feb 3 – Feb 10):** Students prepare individual papers on forecasting characteristics of Delphi method and Scenarios. Papers should explore the use of one or the other of these forecasting methods in the development of a policy issue. Papers may examine an actual issue, whether past or ongoing. Alternatively, papers can construct and examine a hypothetical case.
- ***Expectations for Assignment#2:*** short, 3-4 pp papers. The only constraint on topic selection is that students must pick examples that are pertinent to their working groups. Papers are to be emailed **to FEpapers@gmail.com by noon on Feb 9**.

Best read by the end of this interval:

- Halal: "The Delphi Method" http://home.gwu.edu/~halal/Articles/articles.html, and browse: http://www.techcast.org/
- Loescher: *Proteus*: Insights from 2020
- Wagner: *Foresight, Innovation, and Strategy:* Toward a Wise Future
- Mazarr: *Global Trends 2005* (recommended)

SESSION #4 –Feb 10: Class discussion of papers on Delphi Method and Scenarios. Introduction by professor to the concept of Future Contingencies of Interest (FCIs) and "STEEP" method for analyzing and comparing their effects on social systems.

- ***Fourth work interval*** **(Feb 10 – Feb 17):** Students prepare individual papers on FCIs, and apply the STEEP methodology to them. Students need to develop only one FCI per person. They should pick FCIs that are pertinent to their working groups' field of interest. Papers are to be e-mailed to **FEpapers@gmail.com by noon on Feb 16.**
- ***Expectations for Assignment#3:*** Short, 4-5pp papers. Assignment is intended to get students to think long-range, look for events that arguably will have transformative impact on society: then, use a method (STEEP) for characterizing the effects. Only constraint on choice of topic is that students must pick examples that are pertinent to their working groups.

Best read by the end of this interval:

- "Societal Tsunamis 2006" (Conference Proceedings)
- "Societal Tsunamis –Working Groups 2007" (Conference Proceedings)
- National Science Foundation Report on Convergence
  Weblink: http://www.wtec.org/ConvergingTechnologies/
- Kurzweil: *The Age of Spiritual Machines* **(recommended)**
- Dyson: *The Sun, The Genome & The Internet* **(recommended)**
- Fukuyama: *Our Post-Human Future* **(recommended)**

Block II: Complexity and Policy Formation

Premise: *Trends and events and their impacts on society are highly interactive, and cannot be understood if this characteristic is overlooked. This section presents complexity theory as best method for thinking about the nature of these interactions and their implications for efforts to manage events through policy*.

SESSION #5 – Feb 17: Class discussion of student papers on FCIs. Presentation by Professor Fuerth on interactivity among FCIs, and on use of Matrix format to display interactions

- ***Fifth work interval*** **(Feb 17- Feb 24):** Students, operating within working groups, write individual papers on interactions between FCIs, and collaborate to display results using matrix format. Papers are to be e-mailed **to FEpapers@gmail.com by noon on Feb 23.**
- ***Expectations for Assignment#4 (a and b):*** This is a two- part assignment. In the first part (part a), students will suggest ways FCI's interact, presenting their ideas in the form of short papers 2-3pp, using "bullet" format. Students use their own FCIs from previous papers, plus one or more FCIs suggested by other members of the class. In the second part of the exercise (part b), students will combine their ideas / papers into matrix form, as discussed in class. For this portion, students will work as groups. Student "chairs" will guide. Four matrices will emerge.

Best read by the end of this interval:

- Bar-Yam: *Making Things Work*
- Rosenau*:* "Many Damn Things Simultaneously: Complexity and World Affairs"

SESSION #6 – Feb 24: Discussion of matrices prepared by working groups. Professor introduces subject of "policy," including "issues analysis" as foundation of policy.

SESSION #7 – Mar 3. Discussion of student papers. Professor presents on basic complexity theory as core factor in both policy formation and execution. Professor and students will discuss complexity in relation to issues identified in assignment #5.

- ***Expectations for Assignment#5 (a and b):*** This is a two- part assignment. In the first part (part a), students will …prepare individual papers on policy topics of interest to themselves, but relevant to their working groups. These will be in the form of short papers (2-3pp), including a statement of the policy followed by identification of issues in bullet form. In the second part of the exercise (part b), students will develop an overall summary for their working groups. For this portion, students will work as groups.

Best read by the end of this interval:

- Interactivity Foundation 2006 Report

- ***Seventh work interval*** **(Mar 3 – Mar 10).** Students read into complexity. Working groups prepare a new version of their respective matrices, highlighting the implications of complexity.
- ***Expectiations for Assignment#6:*** Papers are to be e-mailed to FEpapers@gmail.com by noon on Mar 9**.** ***Expectations for Assignment:*** The purpose of this exercise is to apply complexity to previous student work on policy analysis. Short papers, 3-4pp, bullet format may be used.

Best read by the end of this interval:

- "Welcome Kit CD" readings on Organization & Complexity

SESSION #8 – Mar 10: Professor continues discussion of complexity theory as framework for thinking about FCIs, Issues, and Policies. Class explores case study of strategic planning in Singapore.

Eighth work interval **(Mar 10 – Mar 24**): Students continue to read into complexity.
Ninth work interval **(Mar 24 – Mar 31):** Reading on networked systems organization

Best read by the end of this interval:

- Axelrod and Cohen: Harnessing Complexity
- Waldrop: Complexity: The Emerging Science at the Edge of Order & Chaos (recommended)
- Introducing Complexity (recommended)
- Checkland: Soft Systems (recommended)
- Capra: The Web of Life (recommended)

Best read by the end of this interval:

- PNSR Report Sections
- Financial Times Articles on the economic crisis **(3)**
- Chapman: *Systems Failure*
- McCarthy et alr: *Network Logic: Who governs in an interconnected world* **(recommended)**

SESSION #9 – Mar 24, Professor presents on "legacy" systems for policy-making and execution in the U.S., and system failure. Discussion of economic crisis as example of complexity-induced systems collapse.

Block III: Networking and Governance

Premise: *As discussed in Block II, conventional ("legacy") forms of organization are failure-prone (i.e." systems failure") when confronted by complexity. Both theoretical literature and a growing body of practical application, suggest that networking is an effective way to help organizations deal with complexity and avoid systems failure. Forward Engagement suggests that networked systems may be particularly well suited for the American political and organizational culture. This section looks at the networking concept and discusses its implications for governance*.

SESSION #10 – Mar 31: Professor presents on networked systems as response to complexity. Discussion of PNSR, Horizon, Solarium projects. Professor presents this semester's scenario as test demonstration of this concept, in light of semester's work.

Tenth Work Interval **(Mar 31 – April 7)**

- Students review past student papers on integration and prepare to present (orally) their preliminary assessments of these proposals. Students will break into two "task forces" (one for the executive branch and one for the Congress) to develop presentations to review earlier ideas relevant to each branch. Presentations to be done in bullet format. E-mailed to FEpapers@gmail.com by noon on April 6.
- ***Expectations for Assignment#7****:* Two "task forces" of students develop point papers analyzing past student recommendations for FCI/Policy integration. The purpose of this section is to acquaint class members with progression of thinking by students in previous classes, and to encourage new thinking based on compound, executive/congressional interactions.

Best read by the end of this interval:

- Past Student Reports (Welcome Kit or www.forwardengagement.org)
- Chapman: *Systems Failure* (Executive Summary)
- Networked Governance (Conference Proceedings)
- Fuerth: *Strategic Myopia: The Case for Forward Engagement*
- Kamarck: The End of Government…As We Know It (Recommended)
- RUNNING THE WORLD (selected chapters-Recommended)
- Project for National Security Reform: Literature Review on Organizational Structure:http://www.pnsr.org/pdf/Organizational_Structure_Literature_Review_draft.pdf

SESSION #11 – April 7: Students and professor conduct discussion and critiques of earlier proposals for institutional mechanisms to blend forecasting and policy.

Eleventh work interval **(April 7 – April 14):** Students draft loose outline of final report: Full class effort, under guidance of "chair." Professor provides oversight and guidance.

Block IV: Upgrading Systems

Premise: *There are practical ways to develop systems that are able to integrate complex information and policy within a networked operational framework. Forward Engagement argues that, although there may be ways to bring this about in a one-step reform, deep systemic change can also be brought about by incremental steps. This section involves a student activity to experiment with ideas about such an approach, as part of a scenario exercise. The scenario will focus on a particular significant complex of public policy issues, to be selected by agreement among students. Results will be presented to a panel of invited guest experts.*

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SESSION #12 – April 14: Discussion of concept paper in loose outline form, with professor.

Twelfth work interval **(April 7 – April 14):** Students draft dense outline of final report: Full class effort under guidance of "chair." Professor provides oversight and guidance.

SESSION #13- April 21: Discussion of dense draft with professor.

Thirteenth work interval **(April 14- April 21):** Students create first full draft of final report: Full class effort, under guidance of "chair." Professor provides oversight and guidance.

SESSION #14 – April 28: Discussion of draft paper with professor.

Fourteenth work interval **(April 21 - 29):** Students complete final report w/ executive summary and PowerPoint: Full class effort under guidance of "chair."
The report is to be e-mailed to FEpapers@gmail.com by 11:00pm April 28

SESSION #15 –Date TBD: *Final Presentation by Students to Invited Guest Panel*

The Scenario

Forward Engagement Spring 2009

It is early spring 2009, still within the first "Hundred Days" of the new administration. Three months earlier, just after inauguration, the President set a new process into motion within the White House designed to launch an effort to improve the capacity of the government to deal with so-called "complex priorities" – defined as:

> "An important policy dynamic that arises from the interaction of a number of Future Contingencies of Interest (FCIs) interacting in a systemic, simultaneous manner. As complex, interacting systems, it is impossible to manage Complex Priorities by engaging their FCIs individually. Complex Priorities are characterized by non-linear changes and often give off faint signals that may alert policymakers to the onset of significant change."

The first phase of this effort began when a small staff briefed members of the then newly-established DCOM (Deputies Committee on Complex Priorities) on the results of their work, which had been ongoing since the middle of the Transition. That report is appended to this instruction.

Members of the DCOM responded well to the fundamental substantive conclusions of the report: i.e. the urgent necessity of confronting the three Complex Priorities identified by the previous DCOM staff: (1) Managing accelerating technological innovation; (2) Fragility of the state-based international system; and (3) Socio-economic fragility. They also responded well to process innovations that were a major focus of the report's discussion of the implications of complexity for policy making. Among these recommendations, the principle finding had to do with the need to employ the concept of "trajectories" along in conjunction with scenarios as a means for visualizing alternative futures. Finally, the DCOM responded very strongly to the staff's observation that cultural changes would need to be encouraged not only in White House operations, but generally in the executive branch, if the reform were to be broad-based and durable.

Based on this discussion, the DCOM staff is instructed to:

- Produce a supplementary report comprising three chapters and an annex. The chapters are to be devoted, one each, to the three meta-scenarios, applying the concept of trajectories, in order to illuminate possible major future states for the nation.
- These chapters are to include recommendations for actions designed to generally steer the United States along the most favorable trajectories, and to react should circumstances require reconsideration.
- This supplementary report is to be submitted as a potential new section of the President's National Security Strategy document, to be submitted to the Congress, as required by law.
- The annex is to present the staff's recommendation for methods to bring about a cultural shift in the bureaucracy that would sustain the new approach – much in the same way that the military has been attempting to do, since the Goldwater-Nichols Act of 1986.