Graduate Council Report  
March 1, 2007

A615  AGEC 676  Frontiers in Markets and Information Economics  (3-0)  Credit 3. Exploration of advanced topics in the field of markets and information economics. May be taken twice for credit. Prerequisite(s): Graduate classification.

A616  AGEC 677  Frontiers in Natural Resource and Environmental Economics  (3-0)  Credit 3. Exploration of advanced topics in the field of natural resource and environmental economics. May be taken twice for credit. Prerequisite(s): Graduate classification.

A604  BUSH 610  Ethnic & Religious Conflicts in Nation Bldg.  (3-0)  Credit 3. This course is concerned with the particular dynamics of ethnic and religious conflict in the modern world with an emphasis on the former communist states. The causes, possible outcomes and role of interventions in such conflicts will be stressed. This master’s level course is intended for individuals preparing for professional careers in the conduct of international affairs. Prerequisite(s): None.

A605  BUSH 613  Diplomatic Negotiations: A U.S. Embassy Perspective  (3-0)  Credit 3. Explore the role of a formal Presidential National Security Strategy, gain first-hand skills and practice in how an American Embassy functions to achieve national security objectives. This master’s level course is intended for individuals preparing for professional careers in the conduct of international affairs. Prerequisite(s):

A606  BUSH 614  Protection of the Nation’s Critical Infrastructure  (3-0)  Credit 3. This course will start with an overview of the nation’s strategies for Critical Infrastructure Protection and securing cyberspace and the definition of critical infrastructures as it exists today. This master’s level course is intended for individuals preparing for professional careers in the conduct of international affairs. Prerequisite(s): n/a.

A613  BUSH 618  Government and Homeland Security  (3-0)  Credit 3. Course will focus on how government is structured to combat terrorism, essentially a course in federalism, with a concentration on issues related to homeland security. Topics will include governmental structure, jurisdiction, political, fiscal and administrative. This course is intended for individuals preparing for professional careers in conduct of international affairs. Prerequisite(s): n/a.

A614  BUSH 619  Weapons of Mass Destruction  (3-0)  Credit 3. Comprehensive study of WMD’s and their potential use by a terrorist group, course will consider both political and technological issues associated with WMD terrorism, focus will be on prevention, protection, response and recovery to WMD terrorism events. This course is intended for individuals preparing for professional careers in the conduct of international affairs. Prerequisite(s): n/a.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Agricultural Economics

2. Course prefix, number and complete title **AGEC 676 Frontiers in Markets and Information Economics**

3. Course description (not more than 50 words) **Exploration of advanced topics in the field of markets and information economics. May be taken twice for credit.**

4. Prerequisite(s) **Graduate classification.**

5. Is this a variable credit course? □ Yes ☐ No If yes, from ________ to ________.

6. Is this a repeatable course? ☐ Yes □ No If yes, this course may be taken _______ times. Will the course be repeated within the same semester/term? □ Yes ☐ No

7. Has this course been taught as a 489/689? □ Yes ☐ No If yes, how many times? _______ Indicate the number of students enrolled for each academic period it was taught.

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      Ph.D. in agricultural economics
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation)
    **AGEC 676 Frontiers in Markets and Information Economics**

   Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
   3 0 3 01.01/03.0005 08 - 09 0 0 3 6 3 2

   Do not complete shaded area.

   Approval recommended by:  
   **David L.Used 2/12/07**

   Chair, College Review Committee Date

   Dean of College Date

   **Submitted to Coordinating Board by:**

   Dean of College Date

   Director of Academic Support Services Date Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-5/04

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AGEC 676—Frontiers in Markets and Information Economics
Department of Agricultural Economics
Texas A&M University
Fall Semester

NOTE: This course is modular and is taught by more than one faculty member. The grade for each of the modules will be equally weighted in determining the final course grade.

Grading:

Module 1:
Review and analysis of a published/working paper 30% (30 points)
  Presentation 10 points
  Report 20 points
Research Proposal/Design of Research Experiment 70% (70 points)
  Presentation 20 points
  Report 50 points

Grading will be based on the completeness, thoroughness, and quality of these reports and presentations. The instructor will read all reports first before assigning individual grades. In addition to these two required reports, you will also be required to read several papers/book chapters.

Module 2:
Final Exam 100%

Module 3:
Market Project/Assignments 50%
Exam 50%

Americans with Disabilities Act (ADA) Policy Statement
The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall or call 845-1637.

Academic Integrity Statement

Aggie Honor Code
“An Aggie does not lie, cheat, or steal or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor/

On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student:

“On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”
Module 1

Professor: Dr. Rodolfo M. Nagy, Jr.
Email: rnavga@tamu.edu
Phone: 845-8376
Office: 344C Blocker
Class Hours: 8:00-9:15 am, Tuesdays and Thursdays, Blocker room 202.

Course Description:

Economic experiments either in the lab or field are increasingly becoming an attractive tool to address theoretical and methodological questions that arise in assessing values. This part of the course will focus on experimental methods and valuation. Specifically, we will explore how economists use experimental methods to understand better the behavioral underpinnings of product valuation. Topics related to value theory, contingent valuation, and experimental auctions will be covered. Upon completion of this part of the course, the student will have the ability to conceptualize and design experiments to test theory and/or methods related to economic valuation research.

Review and Analysis of a Published/working paper:
Select a published or working paper that is based on valuation of a good and economics experiments. Write a report based on the following:

1. research question, objectives
2. experimental design
3. theoretical predictions of experimental outcome
4. results
5. your critique of the author’s research design, results and conclusions (you may wish to suggest any improvements in the research design or use of alternative techniques).
6. suggestions for areas of future research.

Present report in class = xx minute presentation
Written report = max of 10 pages, double-spaced.

Research Proposal/ Design of Research Experiment:
Write a research proposal about product valuation. Design an experiment using either contingent valuation or experimental auctions addressing a research question of your own. Your proposal should include the following:

1. theory/conceptual foundation
2. review of literature
3. research issues, questions, objectives, and hypotheses
4. design of experiment - clearly describe/discuss elicitation or valuation method, type of valuation (WTP or WTA), product, hypothetical or non-hypothetical, experimental treatments, subject pool, and method of recruiting, number of subjects, detailed budget, etc.
5. complete instructions/protocol
6. how to analyze results
7. possible further explorations based on result expectations
Guideline Questions:
(1) What theoretical, methodological, empirical issues would you want to test? What are the questions you would like the experiments to answer?
(2) What do you already know about the possible answers to these questions?
(3) What are the possible experimental ways of finding an answer to the question you have stated above?
(4) What are the advantages and disadvantages of using an experiment to find the answers?
(5) How would you conduct the experiment? Write down the detailed design and instructions (protocol).
(6) What are the possible outcomes of the experiment?
Presentation: xx minutes
Proposal: maximum of 25 pages (double spaced)

Tentative Timeline:
September 7 = deadline for choice of paper to review and analyze
September 19 = presentation of paper reviews
September 19 = deadline of written report on paper review
September 26, 28 = presentation of research design/proposal
October 2 = deadline of written research design/proposal

OUTLINE

I. Value Theory
   a. Willingness to Pay
   b. Willingness to Accept
   c. Divergence Issue

II. Introduction to Experiments –
   a. The Experimental Method
   b. Why conduct experiments?
   c. Lab Experiment
   d. Field Experiment

III. Designing Experiments
   a. Hypothetical (e.g., Contingent Valuation)
   b. Non-hypothetical Valuation (e.g., experimental auctions)
   c. Incentive Compatibility
   d. Induced vs Homegrown Values
   e. External Validity

IV. Contingent valuation
   a. Advantages and Disadvantages
b. Issues in contingent valuations - Hypothetical bias, Starting point bias/anchoring effects, yea-saying, Strategic bias, Calibration, etc

V. Elicitation Methods

a. Open Ended
b. Dichotomous Choice (single bounded, double bounded, etc)
c. Payment Card, Stochastic Payment Card, Random Card Sorting
d. Choice-based Conjoint Analysis/Choice Experiments
e. Experimental Auctions
   1. Theory, Advantages and Disadvantages
   2. Types – 2\textsuperscript{nd} price, nth price, BDM, English, random nth price, collective auction
   3. Issues to think about when conducting experimental auctions: practical, empirical, and theoretical considerations, auction mechanism, market feedback and bidder affiliation, demand reduction and wealth effects, multiple attribute valuation, single vs multiple good valuation; endowment effect; field substitutes, etc…

Texts

Some of the course material will be drawn from the following books:


You can purchase these books from the MSC Bookstore. Material from these texts will be supplemented with numerous journal articles and book chapters, a list of which will be provided on a topic-by-topic basis.
Module 2

Professor: Dr. David A. Bessler
Email: d -bessler@tamu.edu
Phone: 845 -3096
Office: 349A Block er
Class Hours: 8:00-9:15 am, Tuesdays and Thursdays, Blocker room 202.

Course Description:

Modern econometric methods are used to study causal relationships among observational data from markets observed in time sequence. Recent advances in artificial intelligence and their application to market information are a major focus of this module. Topics in generation and scoring of probability forecasts will be covered as well. Upon successful completion of the course the student will have the ability to model observational data using vector autoregressions, error correction models, and directed acyclic graphs.

Prerequisites:

ECMT 676 (General Linear Model)
AGEC 661 (Applied Econometrics)

Texts: (The student need not purchase these but they may be helpful both in the course and later in his/her professional career)


TOPICS

Probability

Axioms
Coherence - Dutch Book
Probability Assessment – Proper Scoring Rules
Conditional Independence
Causation and Probabilities
Which Comes First Probabilities or Causation?
Directed Acyclic Graphs (DAGs)

D-separation
Colliders
PC algorithm
GES Algorithm
Identification
Back-door paths
Front-door paths
Instrumental Variables
Policy and DAGs

Time Series Analysis

Multivariate Models

Vector Autoregressions
  Number of Lags
  Likelihood ratio test
  Statistical loss functions
  Estimation of Unrestricted VARs

Innovation Accounting
  Impulse responses, Historical Decompositions and Forecast Error Variance
  Decompositions
  Choleski Factorization
  Bernanke Factorization
  Subjective ordering
  DAG ordering

Cointegration
  Error Correction Models
  *Johansen ML Procedure*
  Number of Cointegrating Vectors (is $\pi$ of reduced rank?)
  Restrictions on $\alpha$ and $\beta$, where $\pi = \alpha\beta'$
Module 3

Professor: Dr. Henry L. Bryant
Email: h -bryant@tamu.edu
Phone: 845 - 5913
Office: 450B B locker
Class Hours: 8:00-9:15 am, Tuesdays and Thursdays, Blocker room 202.

Course Description and Objectives: Contingent claims markets provide a means for the intertemporal allocation of scarce commodities, and for the efficient allocation of risk among agents in the economy. This course will provide an accelerated introduction to the purposes and mechanics of futures and options markets. The two major theories of futures price determination will be presented. Hedging of price risk using both futures and options will be covered, as will the basic options (on futures) pricing model.

Market Project: Each student will be assigned a specific futures (and associated options) market which will be the subject of a market project. This project will span the duration of this portion of the course. The project will be comprised of several individual tasks which will 1) require the student to develop an understanding of the characteristics and operation of the assigned market, 2) involve some practical analysis of price relationships and market conditions, and 3) mirror some basic types of questions that are addressed in futures and options research. Portions of the project will be due each Tuesday for the remainder of the term. The project is described in detail in a separate handout.

Reading and Texts: There is (are) no required text(s). Course material will draw from and can be complemented by the texts listed below, which are presented in approximate order of increasing rigor. Various journal articles will be read as well. Students should read the Wikipedia article on futures contracts prior to the first class session on Tuesday, November 7 (available at http://en.wikipedia.org/wiki/Futures_contract).

Subject Outline:

I. Futures Basics
   - Definition and mechanics
   - Purposes of futures markets
   - History
   - Exchanges, clearinghouses
   - Participants – hedgers, speculators, arbitrageurs
   - Regulation, manipulation
   - Survey of active contracts

II. Spatial and Temporal Price Relationships
   - Theory of storage
   - Basis
   - Data aggregation and transaction costs

III. Risk Premiums and Hedging Pressure
   - Risk premiums
   - Normal Backwardation and hedging pressure
   - Empirical considerations and evidence

IV. Hedging
   - Simple forward marketing, basis forecasting
   - Static hedging
   - Dynamic hedging
   - Multiple hedging

V. Options
   - Basic definitions and mechanics
   - Put-call parity
   - Arbitrage pricing in complete markets
   - Greeks, multiplicity
   - Hedging with options

VI. Other
   - Implied volatility
   - Market-implied price forecasts
   - Financial futures and options
   - Other types of contingent claims
   - OTC derivatives trading
   - Trends, new contracts, electronic trading, ETFs
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Agricultural Economics

2. Course prefix, number and complete title: AGEC 677 Frontiers in Natural Resource and Environmental Economics

3. Course description (not more than 50 words): Exploration of advanced topics in the field of natural resource and environmental economics. May be taken twice for credit.

4. Prerequisite(s): Graduate classification. Cross-listed with

5. Is this a variable credit course? □ Yes □ No If yes, from _______ to _______

6. Is this a repeatable course? □ Yes □ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? □ Yes □ No

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10. Prefix | Course # | Title (exclude punctuation)

   AGEC 677 Frontiers in Natural Resource and Environmental Economics

   Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
   3 0 3 03.0804.0006

   Head of Department
   Head of Department (if cross-listed course)
   Chair, College Review Committee
   Dean of College
   Submitted to Coordinating Board by:
   Director of Academic Support Services

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-5/04

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Course Description:

Exploration of advanced topics in the field of natural resource and environmental economics. This course may be taken twice for credit.

Instructors:

Bruce McCarl  
340D Blocker  
845-1706

Richard Woodward  
308C Blocker  
845-5864

Grading:

Final grade for the course will be 50% from Module I and 50% from Module II.

Text:
Reading lists will be provided by instructors.

Americans with Disabilities Act (ADA) Policy Statement

The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

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Academic Integrity Statement

All syllabi shall contain a section that states the Aggie Honor Code and refers the student to the Honor Council Rules and Procedures on the web.

Aggie Honor Code

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On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student:

"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."

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Class Procedure

We will have a mix of instructor and student given lectures.

Each student is responsible for two lectures on topics chosen from among the topics in italics in the outline below. A student lecture will

1. Cover material related to the general topic of the lecture done just before.

2. Present a topic not being limited to the material in a single paper.

3. Not replicate the material in the previous lecture.

4. Cover the following where possible
   a. Technical aspects and description of issue at hand
   b. Description of economic problem inherent in topic and analytic framework to approach
   c. Description of quantitative approach or approaches relevant for addressing issue.
   d. Review empirical and theoretical findings relevant to issue.
   e. Research needs

5. Presentations to the class will be 75% of your class grade. (we will also have homework (15%) and instructor grade on your participation (10%). The presentations and the shares of the 75% presentation grade are divided in the following and will

   a. Be developed in consultation with the person who lectures the class period before (Who will also suggest aspects of the issue around which you might structure your presentation).
   b. Be informed at least 2 weeks before your time to lecture by an outline of the prior lecture developed by the prior lecturer.
   c. Have had an outline of your lecture turned in to the person who lectures before you at least 1 week prior to your lecture (which will be graded by the professors involved and will be the subject of feedback and suggestions for improvement (25% of the presentation grade)
   d. Be supported by the following materials
      a. A professionally done set of power point overheads which will be turned in for a grade (25% of the presentation grade)
      b. An annotated bibliography on your topic with an assignment of no more than 40 pages of reading to students in the class.
      c. Two questions – one for discussion at the end of your presentation and one for student homework, the latter of which you collect and grade (10% of the presentation grade)
      d. A short answer to the homework problem for distribution (10% of the presentation grade)
      e. The presentation itself (30% of the presentation grade)
Topic Outline

Class introduction and Climate Change Intro. (Dr. McCarl)
What is this about?
What is happening?
What may happen – damaged items?
  plants and trees
  health
  transport
  sea level
  heating and cooling
  ecosystems
What is alleged to be causing it?
Who is emitting?
What is certain and uncertain?
How is this an economic problem?
  Welfare
  Externalities and market failure
  Public goods
  Intergenerational questions
How may policy enter the current arena?
  Kyoto
  GHG intensity
  Partial coverage
Economics of mitigation
  Regulatory approach?
  Tradeable permits
  Role of sectors
Quantitative analysis of alternatives
  Duration of analysis
  Scope across economy
  Revealed/extrapolated behavior
  Restriction of range
  Simulated behavior and the house of cards
Assessment of Climate Change Impact on Economy (Dr. McCarl)
Economic issues
  Pub. goods, externalities, uncertainty, sustainability, inter gen. equity, cost-benefit analysis
Scope of Assessment
  Regional, national, and international. Sectoral and economy wide assessments. Timeframe of assessment
Socio-Economic Scenarios
  Population, income, demand, employment etc.
Climate Change Scenario
  How hot and wet will it be
  Synthetic vs. GCM based scenarios
Impact Assessment Methodologies
  Structural vs. Spatial Analogue
Adaptations to climate change
  Nature of adaptations
  Valuing adaptation (Cost-Benefit analysis)
Scope of assessments - U.S. National Assessment Report and EPRI report (selected sectors)
Climate Change Mitigation

What is Kyoto?
What is GWP and economic issues behind it?
Approaches to reduce CC problems (command and control, taxes, permits, etc.)
Type of mitigation strategies that could be employed

Assessment of Climate Change Impact in Agriculture (McCarl or Butt)
This lecture will review and discuss ways people have examined climate change impacts on the agricultural sector.

Climate Change Case Studies (Dr. McCarl)
This lecture will cover the U.S. agriculture and climate change, and effects of climate change on a water dependent regional economy.

Assessment of Climate Change Impact in Forestry (Dr. Gan)
This lecture will review and discuss ways people have examined climate change impacts on the agricultural sector.

Climate Change Mitigation by Agriculture and forestry
Mitigation roles of agriculture and forestry such as emission reducers, greenhouse gas sinks, providing substitute less emission intensive products, and being a passive sector subject to higher input prices Individual vs. portfolio mitigation strategies

Cost of Obtaining GHG offsets by purchasers (McCarl)
Direct production cost
Producer incentive cost
Transactions cost
Government cost share
Discounts
Additionality
Leakage
Permanence
Uncertainty
Social vs private cost separation
Level of government cost share

Government Role, Co-Benefits, and Market Failure (Levan Elbakidze)
This lecture will focus on a justification for a government intervention when there is a market failure. Issues on income distribution and other environmental co-benefits are also discussed.

Should we mitigate?
Climate change damages from selected studies
Mitigation costs estimates from selected studies
Weighing mitigation costs and benefits
Uncertainty about climate change
Justifications for mitigation
AGEC 677
Frontiers in Environmental and Resource Economics (Module II)
Spring

Contact Information
Richard T. Woodward
308D Blocker
r-woodward@tamu.edu
Phone: 979-845-5864 Home: 979-695-0219

Course goals
A student who has taken this class should be familiar with the theoretical and practical issues surrounding the transferable rights (TR) for the management of the environment and natural resources. As a specific goal, on completing the class a student should be prepared to carry out an evaluation of a TR program, analyzing the program’s potential to deliver efficiency gains, the equity consequences of the program, and the program’s ability to achieve its environmental objectives. A student should be able to read and place in context literature in the area of transferable rights.

Papers read and reviewed will be both theoretical and empirical. We will draw on seminal works from the 1960s, recent analysis at the frontier of theory and methods, and case studies.

Grading:
The grades in this half of the class will receive equal weight with the half taught by Bruce McCarl in determining your final grade in AGEC 677.

For this half of the class, your grade will be based on
30% participation
30% program evaluation
40% Final examination

Participation will be based on daily participation in the class. To the extent possible, lecturing will be kept to a minimum. All students are responsible for familiarizing themselves with the topics of the day’s class and the material will be presented primarily through a question and answer format. At least some level of understanding of mathematical models is necessary.

Program evaluation: A class project will be to choose an existing transferable rights program and develop a comprehensive evaluation of the program. Working as a group, the students will develop an outline for the evaluation and division of responsibilities. A student’s final grade will be based 1/3 on the instructor’s evaluation of the project’s overall quality and organization (same grade for all students) and 2/3 on those portions of the evaluation that were the responsibility of the student.

Final examination: A take home examination will be given covering the major themes of the class. The examination will be open book.

Organization of the class
The class will be divided into two parts. In the first part we study the underlying theoretical issues and challenges in developing transferable rights. The second half will look at a number of problem where transferable rights have been applied. The reading burden in the first half of the class will be heavier and more technical while the readings in the second half will be lighter and give us an opportunity to apply the theoretical issues covered in the first half of the class. This class will give you an opportunity to refine your skills at quickly absorbing papers – identifying the aspects of the paper that are most important and skipping over those aspects that are not key.
Theoretical issues

Some prioritization is provided (*), but not much. You should look at all papers.
The schedule and readings may change with appropriate notice.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Paper(s)</th>
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<tbody>
<tr>
<td>Historical foundations</td>
<td>Dales 1968*, Crocker 1966</td>
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<td>Ethics and Ideology</td>
<td>Goodin 1994*</td>
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<td>Market Power</td>
<td>Hahn, 1984*, Duggan and Roberts 2002</td>
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<td>Price discovery &amp; market efficiency</td>
<td>Anderson, and Sutinen.(forthcoming)</td>
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<td>stock pollutants</td>
<td>Atkinson and Tietenberg (1991)*</td>
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<td>banking</td>
<td>Leiby and Rubin 2001</td>
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<td>monitoring and enforcement</td>
<td>Kling and Rubin 1997</td>
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<td>multiple pollutants</td>
<td>Montero 2001</td>
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<td>transaction costs</td>
<td>Stavins, 1995, Montero 1998</td>
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<td>Innovation</td>
<td>Bruneau 2004, Montero 2002</td>
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Problems

This list is incomplete and will be updated as the scheduled dates approach.

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<tr>
<th>Prob. #</th>
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<th>Problem</th>
<th>Paper(s)</th>
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<td>1</td>
<td>8</td>
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<td>The SO₂ program</td>
<td>Ellerman, 2004 (OECD)</td>
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<td>Reclaim and Greenhouse Gasses</td>
<td>Harrison, 2004</td>
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<td>Kruger and Pizer 2004</td>
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<td>10</td>
<td>4/21</td>
<td>water quality</td>
<td>Woodward, Kaiser and Wicks 2002</td>
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<td>King and Kuch 2003</td>
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<td>4</td>
<td>11</td>
<td>4/26</td>
<td>Fisheries &amp; open-access resources</td>
<td>Repetto</td>
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<td>5</td>
<td>12</td>
<td>4/28</td>
<td>Wetlands &amp; development</td>
<td>Shabman &amp; Scodari</td>
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<td>Johnston and Madison. 1997</td>
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<td>13</td>
<td>5/3</td>
<td>Present and discuss final project</td>
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<td>5/13</td>
<td></td>
<td>Final project due</td>
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</table>

Reading list


Montero, Juan-Pablo. Tradable permits with incomplete monitoring: Evidence from Santiago’s particulate permits program. working paper available on-line. I haven’t read this paper.


OECD 1999 Implementing Domestic Tradable Permits for Environmental Protection.pdf


Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of: Bush School

2. Course prefix, number and complete title: BUSH 610 Ethnic & Religious Conflicts in Nation Bldg.

3. Course description (not more than 50 words): This course is concerned with the particular dynamics of ethnic and religious conflict in the modern world with an emphasis on the former communist states. The causes, possible outcomes and role of interventions in such conflicts will be stressed. This master's level course is intended for individuals preparing for professional careers in the conduct of international affairs.

4. Prerequisite(s): n/a

5. Is this a variable credit course? □ Yes □ No If yes, from _____ to _____.

6. Is this a repeatable course? □ Yes □ No If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? □ Yes □ No

7. Has this course been taught as a 489/689? □ Yes □ No If yes, how many times? _____ Indicate the number of students enrolled for each academic period it was taught, summer 2005 4, summer 2006 4.

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   n/a

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   n/a

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix | Course # | Title (exclude punctuation)

   BUSH 610 Ethnic & Religious Conflicts in Nation Bldg.

   Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | Acad. Year | FICE Code
   0 | 3 | 0 | 0 | 0 | 3 | 451 | 001 | 0001 | 13640 | B-09 | 003632

Approval recommended by: 9/6/06
Head of Department

Chair, Graduate Committee 9/8/06

Dean of College 9/8/06

Director of Academic Support Services

Submitted to Coordinating Board by:

Date

Effective Date 6/2007

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 845-8927.

OAR/AS-5/04

20 of 65 C
BUSH 689-101 Special Topics
Ethno-religious Conflict and Nation-Building:
Theory and Lessons from the Post-Communist World

Summer Session I 2006

Instructor: Alexander C. Pacek
Class Time: M,T,W,TH 2:30-4:40
Class Location: 1094 Allen Building
Instructor's Office: 2055 Allen Building
Instructor's Phone: 845-3229
Instructor's Email: e339ap@polisci.tamu.edu (NOTE: please use this email instead of my NEO email).
Office Hours: Every day 1:00-2:00 and by appointment

I. COURSE OUTLINE: This course is concerned with the particular dynamics and consequences of ethnic and religious conflict in the modern world, with an emphasis on the post-communist world (former Soviet Union and Eastern Europe). This is the case for several reasons:

a). This region is the instructor's area of specialization.
b). The conflicts that have broken out in this region, specifically in the Balkans, Caucasus, and Central Asia, represent *global* as well as regional crises, and directly affect the interests of the United States.

The main goal for this course is, first and foremost, to gain an understanding of these types of conflicts, what causes them, and what they mean for a 21st century interdependent world. In addition, students will learn to analyze such conflicts and hopefully learn to predict and assess their outbreak and particular paths they take. Moreover, the course is designed to give students an insight into the *policy-making* aspects of these conflicts, e.g. to think about them not just as academics might, but policy analysts and diplomats.

An obvious caveat: in an intensive 5 week course, we can only accomplish so much!

II. COURSE OBJECTIVES: The principal objective is for students to have a detailed grasp of the factors which hinder or encourage nation-building in the region under study. Students will be placed in the position of policy analysts and implementers concerning real-world situations. It is expected that students will become familiar with what "works" and what doesn't when trying to manage ethno-religious conflict.

III. REQUIREMENTS: This course emphasizes a significant amount of reading, as this will be unfamiliar to most of you. You are responsible for doing the reading before class, and being prepared to discuss the issues for each session.

(1). Written Project (350 points)

You are required to submit a written project on some aspect of ethno-religious conflict and nation-building in the post-communist world. The form the project will take will be determined by (a) the student's interest and preference, and (b) consultation with the instructor. For example, the student may elect to do a research paper, or a policy brief/memorandum on the subject of the student's choosing. The project will be limited to two options:

a). Research Paper: here the student will pose an academic question germane to the subject matter, propose a theoretical explanation, state the research method and materials required in the analysis, present the findings, and discuss implications.
b). Policy Brief: here the student will specify the problem under study, provide background information, specify a target audience, and state a policy course of action that the target audience can implement.

I will meet with each student within the 2nd week to discuss and finalize the projects, and meet with them individually throughout the course to facilitate the project's progress and timely completion.

The projects will be graded by the instructor from the perspective of an article undergoing formal review for publication. Points will be assigned based on the importance of the question addressed, the coherency of the argument, and the competence of the research method(s) employed.

(2). Class Participation (150 points)

Students will be graded on preparation and participation in the course. Therefore, students are expected to attend class, actively discuss the material, and exhibit professional decorum during presentations and debates. Each student will present their project during the final week of class and field questions from the professor and their colleagues in class.

IV. COURSE READINGS: All readings will be on ereserves.tamu.edu, under the course heading title. A few more readings will be added to this syllabus in advance of various sessions.

V. SUBJECT OUTLINE

(1). Tuesday May 31: Introduction. We will go over the syllabus and discuss the course in general terms.

(2). June 1-9: Overview of ethno-religious conflict and nation-building

June 1:


June 2:


June 6:


June 7: Solution I: Use of Peace Keepers


June 8: Solution II: Power-Sharing


June 9: Solution III: Partition

Kaufmann, Chaim. 1996. "Possible and Impossible Solutions to Ethnic Civil Wars."


THE FOLLOWING WEEK’S READINGS WILL BE ADDED AND SENT TO STUDENTS BEFORE THE END OF WEEK 2.

(3). June 13-16: Case I: The Failure of Nation-Building in the Former Yugoslavia

(4). June 20-23: Case II: Forced De-Nationalization in the Caucasus

(5). June 27-30: Case III: Stunted Nation-Building: Central Asia
(6). July 1: Student projects are due!!

VI. COURSE POLICIES:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of Koldus Building, or call 845-1637.

The handouts used in this course are copyrighted. By “handouts” I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc. of another person and turning it in as your own, even if you have permission of the person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section ‘Scholastic Dishonesty.’
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of ________________

2. Course prefix, number and complete title: BUSH 633 Diplomatic Negotiations: A U.S. Embassy Perspective

3. Course description (not more than 50 words): Explore the role of a formal Presidential National Security Strategy, gain first-hand skills and practice in how an American Embassy functions to achieve national security objectives. This master's level course is intended for individuals preparing for professional careers in the conduct of international affairs.

4. Prerequisite(s) __________________________ Cross-listed with __________________________ Cross-listed courses require the signatures of both department heads.

5. Is this a variable credit course? □ Yes □ No If yes, from ______ to ______.

6. Is this a repeatable course? □ Yes □ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? □ Yes □ No

7. Has this course been taught as a 489/689? □ Yes □ No If yes, how many times? __2__ Indicate the number of students enrolled for each academic period it was taught. Spring 05 22, Spring 06 17

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix | Course # | Title (exclude punctuation) | Lect | Lab | SCH | Subject Matter Content Code | Admin. Unit | Acad. Year | FICE Code | Level

| BUSH | 633 | DIPLOMATIC NEGOTIATIONS | 0 | 3 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1364 | 0 | 0 | 0 | 3 | 6 | 3 | 2 |

Do not complete shaded area.

Approval recommended by:

Head of Department ______________________ Date ______________________

Head of Department (if cross-listed course) ______________________ Date ______________________

Submitted to Coordinating Board by:

Director of Academic Support Services ______________________ Date ______________________

Chair, College Review Committee ______________________ Date ______________________

Dean of College ______________________ Date ______________________

Dean of College ______________________ Date ______________________

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-5/04

25 of 65 C
January 11 2006

National Strategy and Contemporary American Diplomacy
Bush School 689
Spring 2006 (Tuesday-Thursday, 4:00-5:30, Room 1063)

Ambassador and Senior Lecturer Larry C. Napper
Office 1091
Telephone 979-845-6897; e-mail: lnapper@bushschool.tamu.edu
Office Hours: Wednesdays 9:00 to 12:00

Seminar Description and Purpose

This seminar has two principal purposes. The first is to explore the role of a formal
Presidential National Security Strategy in addressing key American foreign policy
challenges including: the global war on terror, proliferation of weapons of mass
destruction (WMD), regional conflict, economic and energy security, and promotion of
democracy and human rights. The second purpose is to enable seminar participants to
gain first hand skills and practice in how an American embassy functions to achieve
national security objectives. In order to stress practice as well as theory, the seminar will
require an extraordinarily high level of active participation by students in class
discussion, role-play, and simulation of actual problems and solutions encountered by
embassy country teams in the conduct of U.S. foreign policy. The “American Embassy”
will be located in a simulated Central Asian country that was formerly a republic of the
Soviet Union. No specific prior knowledge of Central Asia is required for this seminar.
Since embassies in the field function as a team, students in this seminar can expect to
work together on oral and written presentations.

Assignments and Grading:

Each seminar will involve discussion of readings assigned for the week and a set of
practical exercises modeled on actual foreign policy issues encountered by U.S.
embassies abroad. Students will receive grades based upon the quality of contributions to
discussion of the reading, effort and ingenuity in role-play and simulation, and the timely
preparation of written assignments. Students will provide briefings for the country team,
participate in policy deliberations, and meet with “foreign officials” in role-play
situations. The seminar will include formation of special task forces to tackle specific
policy challenges. Required reading and seminar exercises will focus on contemporary
foreign policy problems and development of practical skills needed in diplomacy,
negotiations, and policy-making. Written assignments may consist of briefing or
decision memoranda, talking points for meetings with host government officials, and
reports for the embassy leadership or Washington.
There will be mid-term and final exercises involving the entire embassy country team. These exercises will require preparation of a policy paper and active participation in the country team exercise. By the end of the seminar each student will have accumulated numerous grades, which will be averaged to yield the final seminar grade. The mid-term exercise will count twice and the final exercise three times in the final average of grades.

Grades for each seminar and the major exercises will be assessed on a rising scale from 1-7 points. The average point total for the entire seminar will be used for calculating final grades as follows:

- Average Point Total of 6.25 or higher A
- Average Point Total of 5.75 or higher B
- Average Point Total of 5.25 or higher C
- Average Point Total of 4.25 or higher D
- Average Point Total below 4.5 F

Academic Honesty: Students who engage in plagiarism or other forms of academic dishonesty are subject to disciplinary penalties, including failure in the course and possible dismissal from the university. Please consult the latest issue of the Texas A&M Student Rules, especially the section on Scholastic Dishonesty.

Americans with Disability Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation for their disabilities. If you believe that you have a disability requiring accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126, Koldus Building (phone 845-1637).
Week 1 – January 17 and 19: Lecture by Seminar Instructor

Orientation to the Seminar – “The Kaleidoscope of American Foreign Policy”
Organization and Function of a U.S. Embassy
The President’s Letter to U.S. Ambassadors
“Why Leadership Matters in the Department of State” address by former Secretary of State Colin Powell
Background Notes on “Brazoristan”

Week 2 – January 24 and 26: The Bush National Security Strategy

Reading Assignments:


Additional Optional Reading:


Week 3 – January 31 and February 2: The Bush Strategy Tested in Iraq

Reading Assignments:


Additional Optional Reading:


**Week 4 – February 7 and 9: Management of National Strategy – The State Department and U.S. Embassies**

Reading Assignments:


Additional Optional Reading:


**Week 5 – February 14 and 16: Management of National Strategy – Proposals and Prospects for Reform in DOD and the Intelligence Community**

Reading Assignments:


Additional Optional Reading:


A Consumer’s Guide to Intelligence, Office of Public Affairs, Central Intelligence Agency

**Week 6 – February 21 and 23: Mid-Term Exercise**

Reading Assignment:


**Week 7 – February 28 – March 2: The Emergence of Modern Terrorism**

Reading Assignments:


Additional Optional Reading:


Anonymous, Imperial Hubris, pp. 103-161.

Week 8 - March 7 and 9: Counter-Terrorism as National Strategy

Reading Assignments:

The 9/11 Commission Report, pp. 71-107


Anonymous, Imperial Hubris, pp. 237-263.

Ivo Daalder and James M. Lindsay, America Unbound, pp. 98-115.

Additional Optional Reading:

Ivo Daalder and James M. Lindsay, American Unbound, pp 78-97.


Week 9 – March 21 and 23: National Strategy and WMD Proliferation

Reading Assignments:


Additional Optional Reading:


**Week 10 – March 28 and 30: “Clash of Civilizations” or “Balance of Power That Favors Freedom”**

Reading Assignments:


President Bush Discusses Freedom in Iraq and Middle East, Remarks at the National Endowment for Democracy, November 6, 2003.


Additional Optional Reading:

Lewis, *What Went Wrong*, pp. 18-150.

**Week 11 – April 4 and 6: Promoting Democracy and Human Rights – Imperative or Illusion?**

Reading Assignments:


Two Practical Cases in U.S. Human Rights Diplomacy from the OSCE Human Dimension Implementation Meeting October 4-15, 2004 in Warsaw, Poland. Statements by Amnesty International and U.S. Representatives Ambassador Larry C. Napper and DOD Deputy Assistant Secretary of Defense Matthew Waxman on Torture and U.S. policy on detainees in the War on Terror. Statement of Non-governmental organizations in countries of CIS and Eastern and Central Europe and Final Statement by U.S. Head of Delegation Ambassador Larry C. Napper. (handouts from the instructor)

Additional Optional Reading:


**Week 12 – April 11 and 13: Failing States and “the Reluctant Imperialist”**

Reading Assignments:


Additional Optional Reading:


**Week 13 – April 18 and 20: Energy and National Economic Security**

Reading Assignments:


Additional Optional Reading:


**Week 14 – April 25 and 27: “Who’s Next”?**

Reading Assignments:


Ivo H. Daalder and James M. Lindsay, *America Unbound*, pp.,172-200.


Additional Optional Reading:


**Week 15 – Final Exercise – Date and time TBD according to final exam schedule.**
Texas A&M University

Departmental Request for a New Course

Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Bush School

2. Course prefix, number and complete title BUSH 614 Protection of the Nation's Critical Infrastructure

3. Course description (not more than 50 words) The course will start with an overview of the Nation's strategies for Critical Infrastructure Protection and securing cyberspace and the definition of critical infrastructures as it exists today. This master's level course is intended for individuals preparing for professional careers in the conduct of international affairs.

4. Prerequisite(s) n/a Cross-listed with n/a

5. Is this a variable credit course? □ Yes □ No If yes, from ______ to _______.

6. Is this a repeatable course? □ Yes □ No If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? □ Yes □ No

7. Has this course been taught as a 489/689? □ Yes □ No If yes, how many times? 2 Indicate the number of students enrolled for each academic period it was taught. Fall 2005 7, Fall 2006 11

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      n/a
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      n/a

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation)
    BUSH 614 Protection of the Nation's Critical Infrastructure

    Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
    0 3 0 0 3 45.100.100.01 136408-09 0 0 3 6 3 2

    Do not complete shaded area.

Approval recommended by:

Head of Department Date

Chair, College Review Committee Date

Dean of College Date

Submitted to Coordinating Board by:

Director of Academic Support Services Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 845-8737.
OAR/AS-304

GRADUATE STUDIES
Protection of the Nation’s Critical Infrastructure

Dr. Wilbur A. Hitchcock
wah@uab.edu
Office Hours: Scheduled by Appointment
Call 205-934-8472

Overview: The terrorist attacks against the United States on September 11, 2001 clearly demonstrated the reality that attacks against the infrastructure of the United States are possible and the potential for damage to people and institutions of the United States is far reaching. The robust economy of the United States based on the productivity and creativity of its people evolved in an environment of openness and accessibility. This underlying fundamental of the American way of life allows terrorist extremists potential opportunities for more attacks on United States' soil. The United States must find a way to protect its complex infrastructures from those who would maliciously attack its components without destroying the very system and way of life we wish to protect. This course will review the eleven classifications of Critical Infrastructure and the nation's Key Assets as defined in The National Strategy for the Physical Protection of the Nations Critical Infrastructures and Key Assets (February 2003). The nation’s historical recognition of the need for Critical Infrastructure Protection (CIP) prior to 9/11/01 and after will be reviewed. Class activities will include readings (most available online), lectures, student research documented with background and position papers, and interactive student dialogue. Although the course will draw heavily on recent events and emerging policy solutions as examples, the primary focus is on enduring strategic issues and fundamental challenges facing America today. Government at all levels, the private sector, and the citizens must work together in an unprecedented way in protecting the nation’s critical infrastructures in the potentially protracted war against terrorism in the 21st century. Students will gain an appreciation for this enormous topic and how fluid the developing body of knowledge is.

Approach: The course will start with an overview of the Nation's strategies for CIP and securing cyberspace and the definition of critical infrastructures as it exists today. Students will then systematically review all of the infrastructure categories to establish a general understanding of their scope, ownership (operational responsibility), vulnerabilities, current status, and focus issues. After grappling with the complexity and magnitude of the critical infrastructures, the class will consider the complexity of establishing methodology for prioritizing the vast list of infrastructure components within each category so that the scarce security resources available are employed in the most cost effective way. The course will conclude with an overview of the unprecedented communication challenges, international cooperative issues, and education needs/approaches. Early in the course each student will select a specific infrastructure category to explore in detail. The objective is to investigate and document a specific infrastructure category in more depth than the overview coverage studied by the entire class. Students will first write a concise historical review of major issues and action steps to date in their selected area without taking a position. The research should include a mapping of the infrastructure’s ownership/management, scope and location descriptions/metrics, vulnerabilities, security approaches taken or planned, and how security measures might be paid for. The second paper will be an executive summary of a policy/position paper on an identified policy or action recommendation. The submission will be the final executive summary and the position/policy paper. The class will be divided into discussion groups. Students will post their historical reviews and executive summaries of their position papers for review and comment by the other student's in their group. Students will respond to comments and incorporate results into the final position paper.

Requirements: Course work will include weekly readings, online presentations, and the sequential development of a position memo concerning a significant infrastructure protection challenge. Students will review other students' historical research and position papers and exchange written critiques prior to the submission of a final decision paper. As part of their research, students will be invited to contribute to an electronic database in their assigned infrastructure category for reference and advancement by future students.
**Readings:** CIP is an exceptionally broad, cross-disciplinary field, in which policies and political issues are changing on a daily basis. This course will concentrate heavily on the strategic fundamentals and underlying challenges and concepts that will outlast transitory news. It will provide students the basis for understanding the challenges of critical infrastructure protection for years to come. **This requires familiarity with a large array of service and production components within each infrastructure category which can only be gained through the study of multiple basic readings.** There are no current text books available as resources for this topic, and thus students will be exposed to original resource documents which typically are the foundation for text books.

**Required Readings** for this course are carefully selected, and students are expected to complete all those assigned.

- Required readings for each week are will be posted in advance on the course web page. Students will also be encouraged to read additional recommended readings from a course reading list. The list provided has multiple single documents and excellent information resource web sites.
- Required readings will be from two selected books and a long list of documents available online at no cost.
- **Do not be alarmed by the size of this syllabus and the number of readings.** In many of the larger government documents, only a few specific pages (specifically identified in the detailed reading assignment) will be required.
- The background material reference list will assist students in their individual detailed research and other background reading. Students are expected to carefully document their reference lists used in their historical summary paper and position paper.
- Learning to extract the essence of readings (especially government documents) is an essential skill for strategy and policy studies. Students should highlight as they read, and complete a brief summary of the key points in each reading. Summaries should be retained from week to week as they will prove useful in critiquing the papers submitted by fellow students.

**Access to Required Readings:**
- Most course material is available online.
- Two books will be required.

**Staying Current:** In addition to the assigned readings for the course, students should read daily newspapers and referenced online information resource pages to find current CIP issues. Several electronic news services provide excellent daily summaries of homeland security news of which CIP issues are a subset. Student discounts may be available for some of the premium Homeland Security news services if enough students sign up. Details will be provided in the first class. One free source is the daily DHS Infrastructure Protection Report, [http://www.dhs.gov/dhspublic/interapp/editorial/editorial_0542.xml](http://www.dhs.gov/dhspublic/interapp/editorial/editorial_0542.xml). A daily check of this report will alert you to worthy new events and government activities concerning CIP. Students will be expected to include the latest information in their research references.

**CIP and Position/Policy Project:** The topic of CIP is enormous, and the issues, threats, and prioritization of use of resources are in a transitory state. Responsibilities and authority are distributed among multiple agencies at the federal, state, local and private level. In this environment, students have an opportunity not just to research and learn, but also to discover new connections and make a genuine contribution to the issue and policy debate.
Students will be required to identify research, synthesize, summarize, and deliver in writing their overview of a
category of the Critical Infrastructure along with recommendations concerning a significant position/policy
issue in CIP.

The issue may address any aspect of CIP (prioritization, funding, establishment of laws or formal rules, etc.),
and may be at any level of jurisdiction (federal, state, local, private). Investigation and presentation will follow
this schedule:

- NLT the 4th class session finalize the CIP category for study and confirm by email.
- NLT the 7th class session submit initial source list for historical/issues review.
- NLT the 10th class session post the brief historical summary and issues of chosen CIP category. Summaries
  will be no more than five pages and will include detailed reference citations.
- NLT the 11th class session students post a critique of the historical summaries presented by other students in
  their study group.
- NLT the 12th class session students post the executive summary of their position/policy paper for review by
  the study group.
- NLT the 13th class students post a critique of the position/policy papers presented by other students in their
  study group.
- NLT the 14th class students post brief responses to critiques.
- Date TBA submit an argumentative paper with executive summary advancing and supporting your
  position/policy issue. The paper should be no longer than 10 pages, and will include a detailed reference
  list.

Grading:

- **Student Written Projects** will constitute 80% of the final grade: 25% for the historical and issues
  presentation, 20% for the executive summary of the position/issue paper, and 35% for the final written
  position/policy paper.
  - Projects will be evaluated for accuracy, completeness, and persuasiveness.
  - Final papers will be formatted in accordance with standard departmental guidance. Proper and
    complete citation of sources is crucial.
  - Evaluations will be returned via email.
  - Unexcused late products will lose one grade per day late.
- **Student class preparation and participation** will constitute 20% of the final grade.
  - Timely submission of all written requirements is required.
  - Quality and depth of critiques of other students’ submissions will be evaluated.

University Policies

- **Americans with Disabilities Act (ADA) Policy Statement.** The Americans with Disabilities Act
  (ADA) is a federal anti-discrimination statute that provided comprehensive civil rights protection for
  persons with disabilities. Among other things, this legislation requires that all students with disabilities
  be guaranteed a learning environment that provided some reasonable accommodation of their
  disabilities. If you believe you have a disability requiring an accommodation, please contact the
  Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus
  Building, or call 845-1637.
- **Academic Integrity.** “An Aggie does not lie, cheat, or steal, or tolerate those who do.” Individuals
  with questions about the Aggie Honor Code should review the Honor Council Rules and Procedures on
  the web at [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor).
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<tr>
<th>Lesson #</th>
<th>Title</th>
<th>Students Requirements:</th>
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<tbody>
<tr>
<td>01 /</td>
<td>Overview: A Systemic Approach to Critical Infrastructure &amp; Protection</td>
<td>Readings: see attached</td>
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<tr>
<td>02 /</td>
<td>CIP: 1. Information Technology &amp; Telecommunications</td>
<td>Read assignment and Class Presentation</td>
</tr>
<tr>
<td>03 /</td>
<td>CIP: 2a. Transportation 1 (except Maritime and Pipelines)</td>
<td>Read assignment and Class Presentation, Top Topic Selection/Assignment Preferences Submitted</td>
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<tr>
<td>04 /</td>
<td>CIP: 2b. Transportation 2 (Maritime and Pipelines)</td>
<td>Read assignment and Class Presentation, Research Topics Finalized</td>
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<tr>
<td>05 /</td>
<td>CIP: 3. Food &amp; Agriculture</td>
<td>Read assignment and Class Presentation</td>
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<td>06 /</td>
<td>CIP: 5. Chemical &amp; Hazardous Waste</td>
<td>Read assignment and Class Presentation</td>
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<td>07 /</td>
<td>CIP: 7. Emergency Services</td>
<td>Read assignment and Class Presentation, Submit Initial Research Source List</td>
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<td>8. Public Health Care</td>
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<tr>
<td>09 /</td>
<td>CIP: 10. Defense Industrial Base</td>
<td>Read assignment and Class Presentation</td>
</tr>
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<td>11. Postal Service and Shipping</td>
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<tr>
<td>10 /</td>
<td>CIP: Key Assets, Risk Assessment Methodology and Prioritization</td>
<td>Read assignment and Class Presentation, Paper #1: Post History/Issues Information Papers</td>
</tr>
<tr>
<td>11 /</td>
<td>Read History/Issues Information Papers</td>
<td>Post Comments on Assigned History/Issues Papers</td>
</tr>
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<td></td>
<td>B. Responses to challenges</td>
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<tr>
<td>13 /</td>
<td>Read and comment on Exec Sums</td>
<td>Post Critiques of Exec Sums</td>
</tr>
<tr>
<td>14 /</td>
<td>Student Final Responses and Final Paper Submission</td>
<td>Comment on all other student comments on “your” Exec Sum.</td>
</tr>
<tr>
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<td>Paper #3 Final Papers due NLT: TBA</td>
</tr>
</tbody>
</table>
Readings

Readings may be updated by the professor at any time.
Please check inside WebCT, under the weekly content areas, for the required reading lists.

Lesson 1  Topic:  Overview: A Systemic Approach to Critical Infrastructure & Protection
(Definitions, Strategies, Sources)

Required Readings:

   http://www.whitehouse.gov/news/releases/2003/12/20031217-5.html, Read All
2. The National Strategy for The Physical Protection of Critical Infrastructures and Key Assets,
   February 2003, http://www.whitehouse.gov/pcipb/physical.html - Read Executive Summary
   (vii – xii) and Introduction (pp. 1 – 33)
3. Interim National Infrastructure Protection Plan, February 2005,
   http://www.deq.state.mi.us/documents/deq-wb-wws-interim-nipp.pdf, Read All
4. The National Plan for Research and Development in Support of Critical Infrastructure
   Protection, April 2005,
   Executive Summary and pp. 1 - 74.
   Introduction (pp. ix – xviii) and Chapter 1 (pp. 1 – 16);
   http://www.fema.gov/pdf/nims/nims_doc_full.pdf, Read Chapter 1 (pp. 1 – 7)
7. The National Response Plan, December 2004,
   http://www.dhs.gov/interweb/assetlibrary/NRPbaseplan.pdf, Scan App. 3 (pp. 78 - 88)

Supplemental Readings:

2. Presidential Directives, Background and Overview, CRS Report for Congress, January 2005,
   http://www.fas.org/irp/crs/98-611.pdf, Scan
   http://www.ppionline.org/documents/HomeSecRptCrd_0703.pdf, Scan
4. Department of Homeland Security Strategic Plan, February 2004,
6. Prior to the 1990s national dialogue concerning the nation's key infrastructure was largely
   directed towards the massive civil works within the nation. The following reference is a general
   overview of issues as they existed in 1988: New Directions for the Nation's Public Works,
   Congressional Budget Office, 1988,
   http://www.cbo.gov/showdoc.cfm?index=5544&sequence=0
Lesson 2 Topic:  1. Telecommunications

Required Readings:

2. The National Strategy to Secure Cyberspace, President Bush, Feb 2003, http://www.whitehouse.gov/pcipb/, Read Executive Summary and pages 1 through 35. Scan remainder
5. Technology Assessment, Cybersecurity for Critical Infrastructure Protection, GAO report May 2004, www.gao.gov/new.items/d04321.pdf, Note: This massive document may be one of the most comprehensive documents on Cybersecurity - Read Chapters 2 and 4, Scan the remainder

Background Reading:

Lesson 3 Topic:  2 a. Transportation (except Maritime and Pipelines)

Required Reading:


Background Reading:

9. **Link List for past GAO Reports and Testimony**, various dates, 

**Lesson 4 Topic: 2 b Transportation (Maritime and Pipelines)**

**Required Reading:**


**Background Reading:**

3. Hearing on Implementation of the Maritime Transportation Security Act, June 2004, [http://www.house.gov/transportation/cgmt/06-09-04/06-09-04memo.html](http://www.house.gov/transportation/cgmt/06-09-04/06-09-04memo.html), Scan
Lesson 5 Topics: 3. Food and Agriculture and 4. Water

Required Readings:

7. *Overview of Agricultural Biosecurity*, Center of Infectious Disease Research and Policy, University of Minnesota, 2004, [http://www.cidrap.umn.edu/cidrap/content/biosecurity/agbiosec/biofacts/agbiooverview.html](http://www.cidrap.umn.edu/cidrap/content/biosecurity/agbiosec/biofacts/agbiooverview.html), Read All

Background Reading:


Background Reading:


Lesson 8 Topic: 9. Banking and Finance

Required Reading:

2. The National Strategy for Infrastructure Assurance, Banking and Finance, May 13, 2002,


Required Reading:


**Lesson 10 Topic:** *Key Assets, Risk Assessment and Prioritization*

**Required Reading:**


**Lesson 11 Topic:** *Information Sharing and Security, Education, and International Cooperation*

**Required Reading:**

1. Read assigned summary papers from other students

**Lesson 12 Topic:** *Information Sharing, education, International Cooperation:

**Required Reading:**

1. Read comments from other students on your historical summary

**Background Reading:**


12
Lesson 13 Topic:  *Responses to comments*

**Required Reading:**

1. Read assigned Executive Summaries

Lesson 14 Topic:

**Required Reading:**

1. Other students comments on your Executive Summary
Academic Honesty: Students who engage in plagiarism or other forms of academic dishonesty are subject to disciplinary penalties, including failure in the course and possible dismissal from the university. Please consult the latest issue of the Texas A&M Student Rules, especially the section on Scholastic Dishonesty.

Americans with Disability Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation for their disabilities. If you believe that you have a disability requiring accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126, Koldus Building (phone 845-1637).
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of _Bush School Government and Homeland Security_

2. Course prefix, number and complete title _BUSH GOVT & HMLND SECURITY_

3. Course description (not more than 50 words). _This course will focus on how government is structured to combat terrorism, essentially a course in federalism, with a concentration on issues related to homeland security. Topics will include governmental structure and jurisdiction, political, fiscal and administrative._

   _This master's level course is intended for individuals preparing for professional careers in the conduct of intl. affairs._

4. Prerequisite(s) _n/a_ Cross-listed with _n/a_ Cross-listed courses require the signatures of both department heads.

5. Is this a variable credit course? _☐ Yes ☐ No_ If yes, from _____ to _____.

6. Is this a repeatable course? _☐ Yes ☐ No_ If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? _☐ Yes ☐ No_

7. Has this course been taught as a 489/689? _☐ Yes ☐ No_ If yes, how many times? _2_ Indicate the number of students enrolled for each academic period it was taught.

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix | Course # | Title (exclude punctuation) |
   --- | --- | --- |
   BUSH | GOVT & HMLND SECURITY |

   Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | Acad. Year | FICE Code | Level |
   --- | --- | --- | --- | --- | --- | --- | --- |
   0 | 3 | 0 | 0 | 0 | 3 | 6 | 3 | 2 |

   Do not complete shaded area.

   Approval recommended by:
   Head of Department | Date |
   Chair, College Review Committee | Date |
   Dean of College | Date |

   Submitted to Coordinating Board by:
   Director of Academic Support Services | Date |
   Dean of College | Date |

   Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-5/04

50 of 65 C
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of ____________________________ 
   Bush School

2. Course prefix, number and complete title ________________ BUSH 618 Government and Homeland Security ________________

3. Course description (not more than 50 words) Course will focus on how government is structured to combat terrorism, essentially a course in federalism, with a concentration on issues related to homeland security. Topics will include governmental structure, jurisdiction, political, fiscal and administrative. This course is intended for individuals preparing for professional careers in conduct of international affairs.

4. Prerequisite(s) n/a Cross-listed with n/a Cross-listed courses require the signatures of both department heads.

5. Is this a variable credit course? ☐ Yes ☑ No If yes, from _______ to _______.

6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken _______ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No

7. Has this course been taught as a 489/689? ☐ Yes ☑ No If yes, how many times? _______ Indicate the number of students enrolled for each academic period it was taught. 08A 3, 07A 11

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      n/a
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      n/a

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation)  Bush 618 Government and Homeland Security

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<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter</th>
<th>Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
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Do not complete shaded area.

Approval recommended by:

Head of Department Date Chair, College Review Committee Date

Head of Department (if cross-listed course) Date Dean of College Date

Submitted to Coordinating Board by:

Dean of College Date

Director of Academic Support Services Date Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-5/04

51 of 65 C
Overview: This course will focus on how government is structured to handle homeland security in the U.S. It is essentially a course in federalism, with a concentration on issues related to homeland security. The essence of federalism is that two or more levels of government have formal authority over the same area or people. Power is shared between different levels of government. In this class we will seek to understand how the parts work together and the implications for the practitioner. The class will be organized around four topics:

1. Governmental structure and jurisdiction—How is homeland security organized on the national, state, and local levels and who has what authority?
2. Political—What are the politics of homeland security and what are the implications?
3. Fiscal—Who is paying the bill for homeland security, how is the money allocated, and how can we participate?
4. Administrative—Who is making, implementing, and enforcing the rules on each level?

Class activities will include readings (most available on line), class lectures and guest lectures, practical exercises, student readings and discussions, student papers, and student presentations.

Requirements: Course work will include weekly readings for class discussion, development of top to bottom flowcharts depicting the current governmental, political, fiscal, and administrative functions that affect homeland security in your local community, and two take-home exams covering the readings for the class. The exams are structured to apply class reading material to homeland security challenges.

Readings: The assigned readings are an essential part of the course. Students are expected to read the assigned material before class and participate in the discussions and critiques of the material. The readings for the course will consist of several books covering a wide range of topics including federalism, funding, politics, and management. Additional reading will include journal, magazine, and newspaper articles relating to homeland security topics covered in this class.

Access to Required Readings:
- Most course material is available on line for download.
- However, at the recommendation of previous classes, some materials will be reproduced, collated, and made available through a local vendor. Purchase and use of these materials will be required. Details will be provided on the first day of class.
- Required texts for the class. They are available in most book stores and on line.


Organized in a five-part structure, American Intergovernmental Relations covers historical and theoretical perspectives on the subject, political aspects, the fiscal dimension, administrative features, and the future of the system.

A classic analysis of decision-making during the Cuban missile crisis that provides the reader with an excellent introduction to theories of governmental decision-making.


**Staying Current:** Discussions of current national security and homeland security issues and process will be part of the class. In addition to the assigned readings for the course, students should become regular consumers of both Washington DC daily newspapers, *The New York Times, The Wall Street Journal*, and such defense and foreign policy publications as *Defense News, Foreign Affairs, Foreign Policy, Washington Quarterly*, and *Jane’s Defence Weekly*. Condensed versions of many of these sources are available online for free.

**Grading:**

<table>
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<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Flowcharting project</td>
<td>25%</td>
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<tr>
<td>Class Participation and preparation</td>
<td>25%</td>
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<td>Exam 1</td>
<td>25%</td>
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<tr>
<td>Exam 2</td>
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</table>

- The projects will be evaluated for accuracy, completeness, and effort.
- Take-home exams will consist of writing short essay answers to discussion questions.
- Unexcused late assignments will lose one grade per day late.

**University Policies**

- **Americans with Disabilities Act (ADA) Policy Statement.** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provided some reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building, or call 845-1637.

- **Academic Integrity.** “An Aggie does not lie, cheat, or steal, or tolerate those who do.” Individuals with questions about the Aggie Honor Code should review the Honor Council Rules and Procedures on the web at [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor).
<table>
<thead>
<tr>
<th>Lesson # / Date</th>
<th>Title</th>
<th>Students Requirements:</th>
</tr>
</thead>
</table>
| Session 1      | Federalism: The governmental structure of Homeland Security at the National level | *O'Toole*
  
  **Historical and Theoretical Perspectives**
  
  Chapter 1. Federalist No. 39
  Chapter 2. What the Framers Meant by Federalism
  Chapter 3. The Federal System
  Chapter 4. The Condition of American Federalism: An Historian's View
  Chapter 5. Models of National, State, and Local Relations
  Chapter 6. Federalism
  Chapter 7. A Note on Ideology
  
  Additional readings from Course Pack |
| Session 2      | Governmental structure of Homeland Security at the state level | *O'Toole*
  
  **Political Aspects of Intergovernmental Relations**
  
  Chapter 8. Governmental Diversity: Bane of the Grants Strategy in the United States
  Chapter 9. Governments as Interest Groups
  Chapter 10. Lobbying for the Good Old Days
  Chapter 12. The Preemption Blast: The Gorilla That Swallows State Laws
  Chapter 13. Federal Coalitions for Federal Programs
  Chapter 14. The Impact of U.S. v. Lopez on Intergovernmental Relations: A Preliminary Assessment –
  Chapter 15. Ways of Achieving Federal Objectives
  
  Additional readings from Course Pack |
| Session 3      | Governmental structure of Homeland Security at the local level | *Countering Terrorism, Edited by Arnold M. Howitt and Robyn L. Pang* |
  
  **Part I: Strategies and Institutions**
  
  Chapter 1 The Architecture of Government in the Face of Terrorism
  Chapter 2 Intergovernmental Challenges of Combatting Terrorism
  Chapter 3 Dealing with Terrorism after September 11, 2001: An Overview |
| Session 4 | The politics of Homeland Security at the National level | Chapter 4 Lessons of the "War" on Drugs for the "War" on Terrorism
Additional readings from Course Pack |
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<td><em>Countering Terrorism, Edited by Arnold M. Howitt and Robyn L. Pang</em></td>
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<td><strong>Part II: Emerging Threats</strong></td>
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<td>Chapter 5 Biological Terrorism: Understanding the Threat and America's</td>
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<td>Response</td>
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<td>Chapter 6 Nuclear Terrorism: Risks, Consequences, and Response</td>
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<td>Chapter 7 Covert Biological Weapons</td>
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<td>Attacks against Agricultural Targets: Assessing the Impact against U.S.</td>
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<td>Agriculture</td>
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<td>Chapter 8 Cyber Attacks: Protecting America's Security against Digital</td>
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<td>Threats</td>
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<td>Additional readings from Course Pack</td>
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<td>Session 5</td>
<td>The politics of Homeland Security at the state and local level</td>
<td><strong>Part III: Capacity Building</strong></td>
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<td>Chapter 9 U.S. Preparations for Biological Terrorism: Legal Limitations and the Need for Planning</td>
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<td>Chapter 10 Ambulances to Nowhere: America's Critical Shortfall in Medical Preparedness for Catastrophic Terrorism</td>
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<td>Chapter 11 Emergency Communications: The Quest for Interoperability in the United States and Europe</td>
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<td><strong>Part IV: Lessons Learned from International Cases</strong></td>
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<td>Chapter 12 Israel's Preparedness for High Consequence Terrorism</td>
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<td>Chapter 13 Consequence Management in the 1995 Sarin Attacks on the Japanese Subway System</td>
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<td>Chapter 14 Civil Liberties, Terrorism, and Liberal Democracy: Lessons from the United Kingdom</td>
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<td>Additional readings from Course Pack</td>
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<tr>
<td>Session 6</td>
<td>Discussion of student flowcharts and evaluation of current structure and recommendations</td>
<td>Flowcharts due</td>
</tr>
</tbody>
</table>
| Session 7 | Fiscal federalism and Homeland Security | *O'Toole*

*Fiscal Aspects of Intergovernmental Relations*

Chapter 16. Significant Features of Fiscal
<table>
<thead>
<tr>
<th>Session 8</th>
<th>Funding state and local Homeland Security operations</th>
<th>Additional readings from Course Pack</th>
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<tbody>
<tr>
<td>Wildavsky</td>
<td>Chapter 1. Budgeting as Conflicting Promises.</td>
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<td>Chapter 2. Budgets as Struggles for Power: A Historical Perspective.</td>
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<td>Chapter 3. The Dance of the Dollars: Classical Budgeting.</td>
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<td>Chapter 4. The Collapse of Consensus.</td>
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<td>Chapter 5. The Politics of Dissensus.</td>
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<tr>
<th>Session 9</th>
<th>Playing the budget and grant game</th>
<th>Additional reading from Course Pack</th>
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<tr>
<td>Wildavsky</td>
<td>Chapter 6. The Politics of Balancing Budgets.</td>
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<td>Chapter 7. Deficits and Surpluses.</td>
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<td>Chapter 8. Entitlement.</td>
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<td>Chapter 10. Reform.</td>
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<tr>
<th>Session 10</th>
<th>Decision-making theories and administrative challenges</th>
<th>Additional readings from Course Pack</th>
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<tbody>
<tr>
<td>Exam 1 due</td>
<td>Allison, Graham and Philip Zelikow. 1999.</td>
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<td><em>Essence of Decision: Explaining the Cuban Missile Crisis.</em></td>
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<tr>
<th>Session 11</th>
<th>Decision-making and administrative challenges</th>
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<tbody>
<tr>
<td>O'Toole</td>
<td>Administrative Aspects of Intergovernmental Relations</td>
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<td></td>
<td>Chapter 23. Techniques of Intergovernmental Regulation</td>
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<td>Chapter 24. The Role of Federal Mandates in Intergovernmental Relations: Draft Report</td>
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<td>Chapter 25. The Politics of Unfunded Mandates: Whither Federalism?</td>
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<tr>
<td>Session</td>
<td>Exercise</td>
<td>Additional readings from Course Pack</td>
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<tr>
<td>Session 12</td>
<td><strong>Web-based Jurisdictional Exercise</strong>&lt;br&gt;Each person is given a scenario and asked to perform a task. The decision-making path and final results are captured for class discussion.</td>
<td>Additional readings from Course Pack</td>
</tr>
<tr>
<td>Session 13</td>
<td><strong>Web-based Political Exercise</strong>&lt;br&gt;Each person is given a scenario and asked to create a strategy for overcoming a political obstacle at the local level. The strategies are distributed and discussed.</td>
<td>Additional readings from Course Pack</td>
</tr>
<tr>
<td>Session 14</td>
<td>The future of Homeland Security: What governmental changes can we expect in the future?</td>
<td>Additional readings from Course Pack</td>
</tr>
</tbody>
</table>

**Exam 2 due**
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of

2. Course prefix, number and complete title

3. Course description (not more than 50 words)

4. Prerequisite(s)

5. Is this a variable credit course? □ Yes □ No

6. Is this a repeatable course? □ Yes □ No

7. Has this course been taught as a 489/689? □ Yes □ No

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix
    Course #
    Title (exclude punctuation)

    BUSHWEAP OF M A S S D E S T R U C T I O N

    Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
    3 3

    Do not complete shaded area.

Approval recommended by:

Head of Department Date

Chair, College Review Committee Date

Dean of College Date

Submitted to Coordinating Board by:

Director of Academic Support Services Date

Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-504

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Prevent, Protect, Respond, and Recover from WMD Terrorism

Spring 2006

Course Syllabus

Bush 689-702

William S. Charlton, Ph.D.
Associate Professor
Nuclear Engineering Department
Texas A&M University
Office: ZACH 129B
Phone: 979-845-7092
Email: wcharlton@tamu.edu

CATALOG DESCRIPTION

Survey of nuclear, biological, chemical, and radiological weapons and their effects; methods used to prevent and protect against the use of these weapons; homeland security responses to a WMD attack; recovery from a WMD terrorism event.

DETAILED COURSE DESCRIPTION

This course is a comprehensive study of weapons of mass destruction (WMD) and their potential use by a terrorist group. The course will consider both political and technological issues associated with WMD terrorism. The course focus is on prevention, protection, response, and recovery to a WMD terrorism event. Nuclear, biological, chemical, and radiological weapons will all be considered. The students will learn the fundamentals of these weapons including: production and development, weapon delivery systems, physical effects of WMD use, and psychological and economic effects of WMD use.

COURSE OBJECTIVES

In completion of this course, the student should obtain a deep understanding of the fundamental principles of WMD terrorism and the homeland security issues associated with prevention, protection, response, and recovery to a WMD terrorism event. With the successful completion of this course the student will be able to:

1. Describe in detail production, usage, and effects of nuclear, chemical, biological, and radiological weapons.
2. Formulate strategies for prevention of WMD development and protection of U.S. territories and interests from WMD attacks.
3. Prepare response plans following a WMD attack.
4. Describe/generate recovery mechanisms for WMD terrorism events and provide critical review of existing recovery plans.

TEXTBOOKS

The required texts for this class are:


CLASS TIME AND LOCATION
This is a distance learning course offered via lecture, readings, and student interaction over the internet.

METHOD OF EVALUATION
The student’s final grade will be determined based on the following percentages:

- Bi-weekly Quizzes: 20%
- Written Assignments: 20%
- Mid-Term Exam: 30%
- Research Paper: 30%

Quizzes will be given every other week. These short, online quizzes will be completed by the students through the University’s WebCT system. These quizzes will cover reading assignments and lecture material.

Two short written assignments (not to exceed three pages per assignment) will be required. One assignment will be completed by October 11. The second assignment will be completed by November 22.

The Mid-Term Exam will be an in class examination and will be conducted on or about the date provided in the course schedule.

The research paper will be completed by the student and will cover an analysis of a WMD homeland security topic. The student must submit the topic for the research paper for approval by October 4.

There is no final examination for this class.

ONLINE COURSE MATERIAL
An electronic copy of this syllabus, the course schedule, all lecture notes, all reading assignments, bi-weekly quizzes, and supplemental readings will be available to the student through the University’s WebCT system. The WebCT system can be accessed through webct.tamu.edu. The student’s grades will be available on WebCT and the students may use WebCT for Chat and Discussion Groups. If you are unfamiliar with this system, instruction will be provided.
ADA STATEMENT
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall. The phone number is 845-1637.

COPYRIGHTS
The handouts used in this course are copyrighted. By "handouts" we mean all materials generated for this class, which include but are not limited to syllabi, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless the author expressly grants permission.

SCHOLASTIC DISHONESTY
As commonly defined, plagiarism consists of passing off as one's own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules [http://student-rules.tamu.edu/], under the section "Scholastic Dishonesty."

RELIGIOUS HOLIDAYS
If you are a member of a religious faith that has one or more holidays which require you to be absent from any class listed above, please tell your instructor at least two weeks in advance of your absence and make arrangements to make-up the class.
### Bush 689-702: Prevent, Protect, Respond, and Recover from WMD Terrorism

*One page overview*

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Full Syllabus:
(readings for each lesson to be assigned)

Lsn 01 Introduction and Overview
- Syllabus, course schedule, introduction and course overview
- History of WMD terrorism

Lsn 02 Nuclear Weapons: Fundamentals
- History of nuclear weapons
- Fundamental components of nuclear weapons production
- Improvised nuclear devices: the terrorist’s nuclear weapon

Lsn 03 Nuclear Weapons:
- Delivery methods
- Physical effects of nuclear weapons usage
- Psychological, sociological, and economic effects
- The terrorists attack strategy

Lsn 04 Biological Weapons: Fundamentals
- History of biological weapons
- Fundamental components of biological weapons production

Lsn 05 Biological Weapons: Strategy, Delivery & Effects
- Delivery methods
- Physical effects of biological weapons usage
- Psychological, sociological, and economic effects
- The terrorists attack strategy

Lsn 06 Chemical Weapons: Fundamentals
- History of chemical weapons
- Fundamental components of chemical weapons production

Lsn 07 Chemical Weapons: Strategy, Delivery & Effects
- Delivery methods
- Physical effects of chemical weapons usage
- Psychological, sociological, and economic effects
- The terrorists attack strategy

Lsn 08 Radiological Weapons: Fundamentals
- History of radiological weapons
- Fundamental components of radiological weapons production

Lsn 09 Radiological Weapons: Strategy, Delivery & Effects
- Delivery methods
- Physical effects of radiological weapons usage
• Psychological, sociological, and economic effects
• The terrorists attack strategy

Lsn 10 Prevention
• Threat assessments and terrorists capabilities
• Denial of nuclear materials
• Interdiction of nuclear and radiological smuggling
• Export controls
• The use of commercial satellite imagery to monitor activities

Lsn 11 Protection
• Vulnerability assessments of WMD targets
• Nuclear and radiological detectors
• Chemical and biological detectors
• Protections strategies

Lsn 12 Response
• First responders
• Triage and reachback

Lsn 13 Recovery
• Decontamination and cleanup: nuclear and radiological
• Decontamination and cleanup: biological and chemical
• Societal recovery from a WMD event

Lsn 14 Conclusions & Review
• Summary and conclusions
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

1. This request is submitted by the Department of ____________.
2. Course prefix, number and complete title: BUSH 619 Weapons of Mass Destruction

3. Course description (not more than 50 words): Comprehensive study of WMD's and their potential use by terrorist group. Course will consider both political and technological issues associated with WMD terrorism, focus will be on prevention, protection, response, recovery to WMD terrorism events. This course is intended for individuals preparing for professional careers in conduct of international affairs.

4. Prerequisite(s): n/a Cross-listed with n/a

5. Is this a variable credit course? ☐ Yes ☐ No If yes, from _______ to _______.

6. Is this a repeatable course? ☐ Yes ☐ No If yes, this course may be taken _______ times. Will the course be repeated within the same semester/term? ☐ Yes ☐ No

7. Has this course been taught as a 489/689? ☐ Yes ☐ No If yes, how many times? _______ Indicate the number of students enrolled for each academic period it was taught. 06A 07A 07A

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      n/a
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      n/a

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix | Course # | Title (exclude punctuation)
      | BUSH 619 | WEAP OF MASS DESTRUCTION

      Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | Acad. Year | FICE Code
      0 | 3 | 0 | 0 | 3 | 4 | 5 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 3 | 6 | 4 | 0 | 8 | 0 | 9 | 0 | 0 | 3 | 6 | 3 | 2

Do not complete shaded area.

Approval recommended by:

Head of Department | Date
--------------------
Chair, College Review Committee | Date

Head of Department (if cross-listed course) | Date
Dean of College | Date

Submitted to Coordinating Board by:

Dean of College | Date

Director of Academic Support Services | Date
Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-5/04

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