**Project Administration Data Sheet**

**Project No.** G-43-606  
**Project Director:** Daniel Papp  
**Type Agreement:** Grant No. G-008301380  
**Award Period:** From 7/1/84 To 6/30/85 (Performance) 9/30/85 (Reports)  
**Title:** Undergraduate International Studies and Foreign Language Programs

### Cost Sharing

- **Amount:** $26,151  
- **Total to Date:** $73,800

### Total to Date

- **Estimated:** $40,000
- **Funded:** $40,000
- **Cost Sharing Amount:** $26,151  
- **Total to date:** $73,800  
- **Cost Sharing No:** G-43-311

### Administrative Data

1. **Sponsor Technical Contact:**
   - Susanna Easton  
   - Project Officer  
   - U.S. Department of Education  
   - Washington, D.C. 20202  
   - (202) 245-2794

2. **OCA Contact:**
   - Brian J. Lindberg  
   - x-4820

### Restrictions

- **Defense Priority Rating:** N/A  
- **Military Security Classification:** N/A  
- **Travel:** Foreign travel must have prior approval – Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of $500 or 125% of approved proposal budget category.  
- **Equipment:** Title vests with N/A – None proposed

### Comments

- This is a continuation Grant. Previous project number was G-43-604/Papp  
- Except where noted otherwise, the same U.S. Department of Education regulations and Terms and Conditions apply in both projects. Please refer to G-43-604 for common detailed reference.

### Copies To:

- Project Director  
- Research Administrative Network  
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- Other

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I.D. No. 02.144.000.84.003

Project File

Newton
SPONSORED PROJECT TERMINATION/CLOSEOUT SHEET

Date 7/26/88

Project No. G-43-606 (05289-2A0) School/Lab Social Sciences

Includes Subproject No.(s) N/A

Project Director(s) Daniel Papp

Sponsor U.S. Department of Education, Grant #G008301380

Title Undergraduate International Studies and Foreign Language Programs

Effective Completion Date: 6/30/85 (Performance) 9/30/85 (Repos)

Grant/Contract Closeout Actions Remaining:

☐ None

☐ Final Invoice or Copy of Last Invoice Serving as Final

☐ Release and Assignment

☐ Final Report of Inventions and/or Subcontract:
   Patent and Subcontract Questionnaire
   sent to Project Director

☐ Govt. Property Inventory & Related Certificate

☐ Classified Material Certificate

☐ Other

Continues Project No. Continued by Project No.

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Program Administration Division
Contract Support Division (2)
PERFORMANCE REPORT, 1984-85:
PROGRAM IN SCIENCE, TECHNOLOGY AND INTERNATIONAL AFFAIRS

SCHOOL OF SOCIAL SCIENCES
GEORGIA INSTITUTE OF TECHNOLOGY
ATLANTA, GEORGIA  30332

SEPTEMBER 17, 1985

Dr. Daniel S. Papp
Principal Investigator

Dr. John R. McIntyre
Co-Principal Investigator
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Appendix I--Course Syllabi

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Appendix IV--Financial Report
This constitutes the performance report of Georgia Tech's School of Social Sciences on the second year of operation of the Program in Science, Technology and International Affairs, funded by a two-year grant of the U. S. Department of Education's Undergraduate International Studies and Foreign Language Program (Title VI, HEA).

I. OVERVIEW

The Program in Science, Technology and International Affairs (STIA) completed its second year of operation on June 30, 1985. The program was designed specifically to respond to the needs of the Georgia Tech student body which has a primary engineering/science focus but which has great educational needs in the international area. A substantial number of Georgia Tech graduates will work in an international setting, and many eventually leave engineering to become managers. Hence, Georgia Tech students need a liberal education to complement their scientific and engineering training with a well diversified and solid international studies component.

At Georgia Tech, the School of Social Sciences, the Department of Modern Languages and the College of Management teach mostly internationally-oriented courses. Therefore the STIA Program was designed and implemented with faculty members from these respective units.

STIA itself was centered around four major operational components, including:
A. Development of eighteen new or revised courses on international scientific-technical studies in the first and second years of operation;

B. A lecture/speaker series emphasizing the interaction of technical/scientific issues and international affairs, and designed to attract as much student involvement as possible.

C. A major annual national conference held at Georgia Tech, on a relevant topic designed to push forward the frontier of knowledge, to create new curricular material by publication of proceedings, and to seek student attendance.

D. An increase in the number of Georgia Tech faculty members oriented toward international affairs.

II. GENERAL OBJECTIVES OF THE GRANT

The two-year program had seven major specific objectives:

A. To expand the undergraduate curriculum by planning, developing and offering new or revised courses in international studies, each with a core centered around some aspect of an interdisciplinary or multidisciplinary international scientific-technical question or issue.

B. To enable the participating academic units better to fulfill their task of integrating Georgia Tech's students' scientific-technical training with their engineering/scientific education.

C. To increase the number of faculty positions (full-time or part-time) in a field or discipline related to international studies.

D. To develop an awareness and understanding among students of the impacts and implications of international scientific-technical and economic affairs in their lives and careers.
E. To introduce the Georgia Tech community to issues and actors in the contemporary international scene that is scientific, technical or economic in nature.

F. To develop the basis for an interdisciplinary certificate program in science, technology and international affairs, within the established framework of interdisciplinary certificates.

G. To disseminate information concerning the program to other institutions that may be interested in it and to collaborate with them when appropriate.

III. PROGRAM PERFORMANCE: JULY 1, 1984-JUNE 30, 1985

During the second year of operation of the STIA program, all four of the major operational components of the program achieved the objectives originally set, in some cases with slight variations from the originally proposed operation. The four major operational components of the grant are reviewed here.

A. Course Development

Five new courses were developed and offered under the auspices of the STIA program during 1984-85 and two other courses already in the Georgia Tech catalog were reorganized, retitled, and reoffered. These seven courses were:

1. "U.S. Defense Policy," taught by Professor M. Srivastava in the School of Social Sciences;
2. "Foundations of International Relations," taught by Professor D. S. Papp in the School of Social Sciences;
3. "Nuclear Weapons and Nuclear Policies," taught by Professor D. S. Papp in the School of Social Sciences;
4. "International Energy Policy," taught by Professor J. D. Roessner in the School of Social Sciences;

5. "British Industrial Society," taught by Professor A. W. Giebelhaus in the School of Social Sciences;

6. "Chinese Science and Technology: 7000 Years of Discovery," taught jointly by Professors M. Kranzberg of the School of Social Sciences and Professor L. J. Schultz of the Modern Languages Department, with the assistance of a number of visiting lecturers and in conjunction with the Atlanta High Museum's China Exhibition.


Each instructor was debriefed by the grant administrators as to student reaction and as to suggestions to ensure that the courses became institutionalized in the future. After reviewing the faculty reports, the grant administrators believe that the points made last year at the end of the first year of operation still apply. First, the instructors again noted that not much can be taken for granted as to the level of student knowledge and that a period of introduction to fundamental concepts at the beginning of most courses is required. Second, instructors generally believed that more time for preparation of innovative curricular materials—which were often not readily available for some of the subjects taught—would have been helpful. Third, some of the instructors considered that courses may lend themselves to the use of the computer to facilitate teaching and offer a more dynamic experience to the students (e.g., simulations). Fourth, again, some instructors were concerned that a greater effort should be made to ensure that as many students as possible be made
aware of the new courses and that these courses be scheduled much in advance to allow for student planning. Fifth, the consensus was that the topics addressed by the visiting lecturers offered a fairly close fit with the new courses offered.

Concerning the courses themselves, Appendix I includes the outlines for all the courses, new or modified, taught during the second year of the grant. These outlines provide a detailed accounting of the topics covered, the curricular materials used, the requirements of the course, and other course features. A brief discussion of each course appears below.

1. The U. S. Defense Policy course, Pol 3203, is a modified course that was redesigned with a view to addressing the issues more pertinent to the strategic balance in the areas of strategy and U.S.-Soviet relations. The course was extremely well received by the students and had an enrollment of 40 students. It will be offered next in winter quarter, 1986.

2. The Foundations of International Relations course, Pol 3275, is a course that was redesigned so as to provide a comprehensive overview of the actors, processes and issues involved in international relations. The course was very popular with the students who enrolled, as reflected in the enrollment figure of 72 students. It, too, will next be offered in winter quarter, 1986.

3. Nuclear Weapons and Nuclear Policies, Pol 4875, was an innovative course designed to answer a number of key questions such as: Why were such weapons developed? Why have so many been built? What strategies/tactics have been developed to deal with nuclear weapons? etc. The course was based on intense readings in these topics and emphasized expressions of students' views through essays. The enrollment was 43 students. The course will be offered again in spring 1986 or fall 1986.
4. International Energy Policy, Pol 4876, was another experimental course which focused on the energy problems faced by the developing nations and some of the technological solutions that can be applied to these problems. The role of the industrialized nations was also addressed. The course was run along seminar lines. It had an enrollment of eight students; most were seniors.

5. British Industrial Society, Hist 4876, investigated some of the major themes in the economic and social history of Great Britain from the era of the industrial revolution in the eighteenth century to the present. At various points in the course, comparative developments in Germany, France, Japan, and the United States served as important points of reference. The course had 19 students. Professor Giebelhaus is planning to offer the course again as soon as possible, probably in the fall quarter, 1986.

6. Chinese Science and Technology: 7000 Years of Discovery, Hist 4877, was a unique experimental course taught in conjunction with Georgia Tech's Centennial exhibition at the Atlanta High Museum, "China: 7000 Years of Discovery." The course involved several faculty members. In addition to its academic objectives, it was designed to prepare the students to be voluntary guides at the Museum Exhibit. The Exhibit lasted from November 19, 1984 through February 24, 1985, and students enrolled in the course were able to use the knowledge acquired in the course and share it with visitors. Additionally, the exhibits provided an incredible laboratory to relate readings and lectures to actual inventions and discoveries and make them come to life. The course had an enrollment of 179 students.
7. Japanese Management and Society: What Lessons To Be Learned, Man 4803/Pol 4875A, was jointly offered in the College of Management and the School of Social Sciences. It had two instructors. The course was Japanese management in the broader context of Japan's historical socio-economic system. It focused on the managerial and commercial achievements of Japan as a world economic power with respect to the human, technical, and production management systems. The reasons for the perceived Japanese successes were considered. The course had a joint enrollment of 57 students. It was very popular among management and social science students who took it.

To sum up, the new courses were quite successful and met all of the objectives set for them in the original grant proposal and specified in Part II of this report.

B. Speaker/Lecture Series

The goal of the speaker series was to bring to campus a number of noted speakers--scholars or policymakers--who could offer different perspectives on international affairs from that presented by the instructors. Students and faculty alike were targets of the speaker series. To the greatest possible extent, speakers were used in the classroom to supplement instructors' teaching. Over the academic year, the following eight speakers lectured under the auspices of the Program:

1. Professor Dean Rusk, Sibley Professor of International Law, University of Georgia Law School, and former U.S. Secretary of State, lectured on "U.S. Foreign Policy in the 1980's," on May 22. The one-hour lecture with questions and answers drew about 230 people. Prior to the lecture, Professor Rusk met with faculty for one hour.

2. Professor Chu Chuany, Chief, Section on Society, Institute of American Studies, Chinese Academy of Social Sciences, Beijing, China,
visiting scholar at Brandeis University's F. Heller Graduate School, spoke on "Recent Problems in Employment and Labor in the People's Republic of China," on January 11. About 20 people met and/or attended Prof. Chu's presentation.

3. Professor Margaret Walsh, University of Birmingham, United Kingdom, visiting Professor at the University of Kansas, Lawrence, Kansas, gave a presentation on "The Long Distance Bus and Changing Travel Patterns in the United States, 1910-1930 and Comparative Perspectives," on November 29. About 20 people met Professor Walsh or attended the presentation.

4. Professor Aqueil Ahmad, Professor of Science Policy and Management of Research at the Administrative Staff College, Hyderabad, India, and Visiting Scholar at CISST, Northwestern University spoke on "Science and Technology in India and China," on October 29. Twenty-five people met Dr. Ahmed and attended the lecture.

5. Professor David Albright, Professor of National Security Studies, Air War College, Maxwell Air Force Base, Alabama, spoke on "Science and Technology in Nigeria and South Africa," on May 22. Twenty persons attended the presentation.


8. Dr. Sergei Rogov, 1st Secretary, Embassy of the USSR, Washington, DC, addressed the two classes on May 15 and May 16 with about 100 students attending.
These presentations were widely advertised in the Georgia Tech community through announcements in classes, ads in the student and faculty newspapers, and a mailing list specifically developed for purposes of program-related events. About 655 people attended these eight speaker/lecture programs.

C. National Conference

The STIA program, in its second year, also sponsored a major national conference on "International Space Policy: Options for the Twentieth Century and Beyond," held at Georgia Tech on May 16 and May 17. The conference program is attached in Appendix II along with the list of registered participants.

The conference itself was organized in four major panels. Additionally, a plenary session address, a keynote address, and a closing address by nationally recognized experts on space policy and international affairs were parts of the program. In the panels, twelve formal paper presentations were delivered in the course of the conference. Papers prepared for the conference are currently being organized into a manuscript for eventual use as a textbook. The American Astronautical Society's Science and Technology book series will include this book in its regular publications list.

It should be noted that the proceedings of last year's conference on Technology Transfer in the Modern World have been edited in book form and accepted for publication by Quorum Books, Greenwood Press, Greenwood, Connecticut, with an anticipated release date of May 1986. The work will appear under the title of The Political Economy of International Technology Transfer, and was edited by J. R. McIntyre and D. S. Papp.
Both texts will provide new curricular materials in classes relating to science, technology, and international affairs and represent a lasting contribution made possible by the two-year grant.

D. Increase the Number of Internationally-Oriented Georgia Tech Faculty Members

A nationwide search was conducted to recruit one tenure-track faculty member with expertise in international relations and area studies, able to teach introductory American government courses. Advertisements were placed in all major national publications of relevance. Sixty-seven applications were received and reviewed by the recruitment committee and the political science subgroup within the School of Social Sciences. The recruitment committee identified four candidates who were then brought to the campus for interviews. After due deliberation, the Faculty decided to support the candidacy of Dr. John Garver (Ph.D., University of Colorado, 1979). Dr. Garver is a political scientist who is trained as a Sinologist. His research has centered on China's diplomatic relations, economic development, and foreign policy in the 20th Century. His record of publications is already strong. His qualities as a teacher are established. He will be an ideal complement to the internationally-oriented faculty at Georgia Tech and especially in the Social Sciences School. He is precisely what was needed, since no one had the necessary area expertise to cover authoritatively the Asian area. Professor Garver will start teaching a new course on Chinese Politics and Institutions in the Fall of 1985. Appendix III includes Dr. Garver's vitae.

IV. CONCLUSIONS

The Program in Science, Technology, and International Affairs thus achieved all the operational goals which were set in the original grant.
application. Courses that were planned were taught and taught well. Students registered for the new and revised courses in about the numbers expected. Student reaction to the courses, as reflected by student teachers' evaluations, comments, and instructors' reports was overwhelmingly favorable.

The challenge, as we indicated in our report at the end of the first year of operation, was for each instructor who organized a new course to ensure that the new STIA course become a regular catalog offering, taught on a regular basis. This process is currently proceeding. A clientele of interested and motivated students has developed on campus and "word of mouth" will ensure that registration levels remain high.

The speaker series and the national conference were particularly appreciated by students and faculty alike. The patterns set in the first two years of operation will not be abandoned. We plan, within available budgeted funds, to keep the tradition established these past two years. Already, for 1985-86, we are planning a one-day colloquium on the Strategic Defense Initiative on November 15 and are hoping to conduct a two-day conference on the Pacific Rim countries in May of next year.

Without doubt, the Undergraduate International Studies and Foreign Language Program two-year grant we obtained in 1984 has bolstered the quality of students' general international education at Georgia Tech and has increased the quantity and quality of internationally-oriented courses offered them. Additionally, it has been a significant factor in enriching faculty's opportunities to explore new areas and develop innovative curricular material. The two national conferences will leave a record of published texts which will enhance both research and teaching on campus.
In short, we look forward, as we did at the end of the first year of operations, to increased student and faculty involvement and a greater place for international studies in the Georgia Tech academic community.
APPENDIX I

COURSE SYLLABI
The direction of the American defense policy is of paramount concern not only to the citizens of this country but also to the rest of the world. The existence of huge nuclear arsenals under the control of the superpowers makes it essential for us to study the course of the defense policy pursued by the United States. We must understand the dynamics of the policy making process along with the roles and perceptions of the various actors involved in order to fully comprehend the policy. Our analysis will thus begin with a discussion of the historical evolution of the American defense policy. We will then analyze the decision-making process. Finally, we will examine the critical issues and areas of the national interest.


Grading: 2 test -25% each
1 Position or paper/Debate-25%
Final Exam - 25%

READING ASSIGNMENT.

WEEK 1: Introduction
American National Security in the Eighties
Jordan and Taylor, pp 1-24

WEEK 2: The Evolution of U.S. Defense Policy
Jordan and Taylor, pp 24-58
The Current Era
J and T, pp 58-81
The Role of Technology and Economics in Defense
J and T, pp 286-333

WEEK 3: The President and Congress
J and T, pp 81-127
The Military and Intelligence
J and T, pp 127-178
Planning and Budgeting
J and T, pp 178-219

WEEK 4: Test #1
Issues of National Strategy
Nuclear Strategies
J and T, pp 221-247
Theater Nuclear Blance

WEEK 5: U.S. Soviet Relations
J and T, pp 335-357
Arms Control
Adelman, "Arms Control Without Agreement";
Bundy, Kennan, McNamara and Smith, "The President's
Choice: Star Wars or Arms Control," Foreign Affairs, Winter 1984/85
Debate #1: President Reagan's Strategic Defense Initiative

WEEK 6:
Alliances and American Security
J and T, pp 463-486
Western Security and the U.S. Interest Holmes, "Dumbells Won't Do," Foreign Policy, Spring 1983
Debate #2: INF Deployment in Europe

WEEK 7:
Test #2
US Security Interests: The Crisis Areas - The Middle East
J and T, pp 378-409;
Debate #3: The Joint Egyptian-Jordanian Proposal.

WEEK 8:
Latin and Central America
J and T, pp. 434-462
Debate #4: U.S. Aid to the Contras in Nicaragua

WEEK 9:
East Asia, J and T pp. 358-378
U. S.-Japan Security Relations
Debate #5: Arms Sales to China.

WEEK 10:
Film: Secretaries of State in Conference
Conclusions
J and T, pp 533-556.

FINAL EXAM
The international system is today in a state of rapid change and even confusion. Nation-states have been joined by a bewildering variety of other international actors including multinational corporations, inter-governmental organizations, non-governmental organizations, and even individuals as major actors on the international scene. Domestic issues spill over into international affairs, and international affairs in turn become domestic issues. Only rarely are domestic economic issues truly domestic, and only rarely are international economic issues truly international; domestic and international issues feed back and forth on each other, and in so doing become more complex than ever. In short, whatever degree of order once existed in the international system has disappeared.

This course will analyze and discuss the current state of the international system, examining in depth the various actors, the perceptions that they hold, the instruments and tools that they use to achieve their objectives, and the major international issues that confront the international system. It will not be an easy course, but it should be a fascinating one; indeed, given the issues that we will be examining it may be one of the most important ones that you ever take.

This course will use one major text, Contemporary International Relations: Frameworks for Understanding, by Daniel S. Papp. Additional readings as appropriate will be placed on reserve at the library. You will be informed of these in class.

Grades for the course will be determined by a midterm (30%); a short 10 page paper (30%); a final (30%); and class participation and attendance (10%). Please come to class prepared, having done the assigned readings.

Tentative course schedule is as follows:

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<th>Date</th>
<th>Subject</th>
<th>Assignment</th>
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<td>Introduction</td>
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<tr>
<td>January 10</td>
<td>The Nation-State</td>
<td>Chapters 1 and 2</td>
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<td>January 15</td>
<td>Martin Luther King's Birthday</td>
<td>No Class</td>
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<td>January 17</td>
<td>IOOs</td>
<td>Chapter 3</td>
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<td>January 22</td>
<td>MNCs</td>
<td>Chapter 4</td>
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<td>January 24</td>
<td>NGOs and Others</td>
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<td>January 29</td>
<td>East-West and North-South Conflicts</td>
<td>Chapter 6</td>
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<td>January 31</td>
<td>US Outlooks</td>
<td>Chapters 7 and 8</td>
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<td>The Soviet Outlook</td>
<td>Chapter 9</td>
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<td>February 12</td>
<td>No Class</td>
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<td>February 14</td>
<td>Other Outlooks</td>
<td>Chapters 10, 11, 12</td>
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<td>February 19</td>
<td>The concept of Power</td>
<td>Chapter 13</td>
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<td>February 21</td>
<td>Economic Power</td>
<td>Chapter 14</td>
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<td>February 26</td>
<td>Military Power</td>
<td>Chapter 15</td>
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<td>February 28</td>
<td>Sociopolitical Power and</td>
<td>Chapters 16 and 17</td>
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<td></td>
<td>International Law</td>
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<td>Date</td>
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<td>Chapter</td>
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<tr>
<td>March 5</td>
<td>The Global Living Standard</td>
<td>18</td>
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<td>March 7</td>
<td>War Peace and Violence</td>
<td>19</td>
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<td>March 12</td>
<td>Conflicts of Values</td>
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<td>March 14</td>
<td>Toward 2000</td>
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NUCLEAR WEAPONS AND NUCLEAR POLICIES

Professor Daniel S. Papp

PCL 4875 Fall 1984

Nuclear weapons have been in the United States' military arsenal for nearly forty years, and the Soviet Union has had them for almost as long. During this entire period, only two have ever been used in war. But those two weapons changed warfare as no other weapons before or since. The combined arsenals of the five nuclear powers in the world today are more than sufficient to destroy civilization as we know it; indeed, they may be sufficient to end human life on earth.

Why were these weapons developed? Why have so many been built? What are the strategies and tactics that have been developed because of nuclear weapons? What are the current issues surrounding nuclear weapons and nuclear policies in the United States and beyond? This course will examine these and other questions about nuclear weapons and nuclear policies... as far as answers are concerned, that will be up to you.

The course itself will be divided into two major sections. The first section will explore the evolution of primarily U.S. and Soviet nuclear arsenals and strategies. The second section will analyze a series of contemporary nuclear questions ranging from extended deterrence and the viability of the triad to nuclear winter and the morality of nuclear weapons.

You will be required to read three books as texts for the course, and four shorter articles will be used as well. The books are Living With Nuclear Weapons (Harvard Nuclear Study Group, abbreviated LWNW); The Fate of the Earth (Jonathan Schell, abbreviated FE); and National Security and the Nuclear Dilemma (Richard Smoke, abbreviated NSND). These books are available in the Georgia Tech Bookstore. The four articles that you will read are Carl Sagan's "Nuclear War and Climates Catastrophe", in Foreign Affairs; The Catholic Bishops' Letter on Nuclear Weapons; Keith Payne and Colin Gray, "Nuclear Policy and the Defensive Transition", in Foreign Affairs; and Daniel Papp, "Soviet Perceptions of the Strategic Balance", in Air University Review. These articles are on reserve in the library.

Grades for the course will be determined by a midterm test; a final exam; and a book review. The midterm will be 25 percent of your final grade, and cover reading and lecture material from the first half of the course. The book review will be 25 percent of your final grade; in it, you will compare and contrast a book on nuclear weapons, nuclear policy, and/or nuclear-related issues that you yourself choose and which has been cleared by the professor with any one of your three textbooks. I recommend you get started on this early so that you don't get caught for time at the end of the quarter.

The last 50 percent of your grade will be the final exam. Half of the final exam (in other words, 25 percent of your overall grade) will be on reading and lecture materials from the second half of the course.
The other half (or in other words, 25 percent of your grade) will be an essay question . . . but it will be more than an essay question, as you will see during the second class session of the quarter when you get the question. Thus, you will have the essay question that will be on the final for the entire quarter. (In the second class session, you will also be asked to take twenty minutes or so to respond to the essay, not for a grade, but just for the sake of seeing where you are coming from at the beginning of the course, and seeing where you then come from at the end. Even though the second session exercise is not for a grade, please take it seriously.)

Tentative schedule for the class is as follows:

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<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
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<tr>
<td>Sept. 20</td>
<td>The Nuclear Age Begins</td>
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<td>Sept. 25</td>
<td>Pre-Course Assessments: Who Thinks What About Nuclear Issues</td>
<td>NSND, 1-65; LWNW, 1-21</td>
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<td>Sept. 27</td>
<td>Deterrence Theory and Practice During the 1950's</td>
<td>NSND, 65-82; LWNW, 22-46</td>
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<td>Oct. 2</td>
<td>Soviet Nuclear Forces, the U.S. Triad, and the Evolution of Extended Deterrence</td>
<td>NSND, 83-102; LWNW, 47-70</td>
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<td>Oct. 4</td>
<td>The Second Era of U.S. Nuclear Superiority: The 1960's</td>
<td>NSND, 103-127; LWNW, 71-102</td>
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<td>Oct. 9</td>
<td>NO CLASS</td>
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<tr>
<td>Oct. 11</td>
<td>Parity: The Nixon Years and the Soviet Buildup</td>
<td>Everyone must have their book to review ok'd by to NSND, 127-174</td>
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<tr>
<td>Oct. 16</td>
<td>The Technology Race, Arms Control and Vulnerability: The 1970's</td>
<td>NSND, 175-196; LWNW, 102-114</td>
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<td>Oct. 18</td>
<td>The &quot;Window of Vulnerability&quot;: Differing U.S. and Soviet Nuclear Positions in the 1980's</td>
<td>NSND, 197-218; LWNW, 115-132</td>
</tr>
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<td>Oct. 23</td>
<td>Forty Years of the Evolution of U.S. and Soviet Nuclear Doctrine</td>
<td>NSND, 219-236</td>
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<td>Oct. 25</td>
<td>TEST</td>
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<tr>
<td>Oct. 30</td>
<td>The Effects of Nuclear Weapons: How They Work, What They Do, and the Case of Atlanta as Ground Zero</td>
<td>FE, 1-97; LWNW, 133-162</td>
</tr>
<tr>
<td>Nov. 1</td>
<td>Nuclear Winter: Recent Research on the Climatic and Biological Impact of Nuclear Weapons</td>
<td>Sagan article on reserve</td>
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<td>Nov. 6</td>
<td>What About the Soviets? - An Assessment of the Soviet Outlook</td>
<td>Papp article on reserve</td>
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<td>Nov. 8</td>
<td>Moral Dilemmas of Nuclear Weapons</td>
<td>The Bishops' Letter on Reserve</td>
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<td>FE, 98-178</td>
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<td>Nov. 13</td>
<td>NO CLASS</td>
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<td>Nov. 15</td>
<td>Reagan, Chernenko, NATO, and Nucs: Current U.S. and Soviet Programs</td>
<td>YOUR BOOK REVIEWS ARE DUE TODAY</td>
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<td>LWNW, 163-187</td>
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<td>Nov. 20</td>
<td>Arms Control: A Way Out, or a Beautiful Loser? - And What About Nuclear Proliferation?</td>
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<td>LWNW, 188-231</td>
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<td>Nov. 27</td>
<td>SDI: A Way Out, or a Way to Get Deeper In?</td>
<td>Payne/Gray article on reserve</td>
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<td>NSND, 237-250</td>
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<td>FE, 181-231</td>
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<td>LWNW, 232-255</td>
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Nuclear Weapons and Nuclear Policy

The following question is almost exactly what your final exam question will be. For today, don't worry if you do not understand what some of the terms mean...take the next 20 minutes, and answer the questions to the best of your ability. This is not for a grade; it is to influence you to begin (if you have not done so already) to think about nuclear issues in a serious and critical matter.

The winner of the 1984 United States Presidential campaign has shocked his advisors, national security experts, and indeed, the world, by announcing that he believes nuclear issues have become too important to leave to the experts. He therefore has selected a person who is knowledgeable but not an expert on nuclear affairs to formulate his administrations nuclear policy from January 1985 to January 1989. This person will formulate policy in the areas of force structure (what kind of weapons); force deployment (how and where they will be based); strategy (deterrence, extended deterrence, launch criteria, targeting); and arms control and disarmament positions. This person will also be charged with convincing his fellow members on the National Security Council of the wisdom of the policies he/she formulates.

You are that person. Formulate and defend your policies.

........

Remember...this today is just to get you thinking. Please take it seriously, do the best you can, and don't worry about it if you don't finish in 20 minutes or don't understand something.
Course objectives and scope

This course is about the energy problems faced by the developing nations of the world, some of the technological solutions that are being applied to those problems, and the roles that the industrialized nations play in addressing them. Through the readings, class discussion, and three assigned papers we will explore these kinds of questions:

What are the energy problems the developing nations face?
What is expected to occur in the future?
What explanations are offered for these problems?
Where is the transition from petroleum-based energy to other energy sources—particularly renewables—in developing countries leading?
What forms of energy supply are most appropriate in different Third World countries?
Who is shaping these countries' energy decisions? What are their motives and interests?
Have new energy technologies been applied "appropriately?" If not, why not?

To explore these and related questions, we will examine the "system" of energy technology supply, purchase, and financing. It includes Third World nations that purchase energy technology, firms based in industrialized nations and multinational corporations that supply the technology and expertise for planning and implementing it, the multilateral aid agencies that help finance Third World energy technology purchases, and the government agencies that seek to promote technology exports and provide bilateral aid. We will pay particular attention to the role that renewable energy technologies now play, and might play in the future, in addressing the energy problems of the Third World.

Books

You are required to purchase two books (available at the Tech bookstore) and a set of readings available from Kinko's (at a 20% discount). The two books are:


I will supply copies of the Senate hearings on H.R. 3169, RENEWABLE ENERGY INDUSTRY DEVELOPMENT ACT OF 1983. I have appended a list of the readings in the set available from Kinko's.
Papers and exams

There will be three papers assigned in the course, and no final exam. The first two papers should be about 10 pages long (approximately 2500 words). The third, due the first day of finals week, should be about 15 pages long (about 3500-4000 words). These are not to be research papers, but "think pieces" based on the readings and class discussion. I will grade them according to these criteria:

- overall understanding of the issues addressed in the course
- soundness of analysis
- relevance to the assigned paper topic
- explicit reference to, and appropriate use of, the reading
- clarity of expression.

Your course grade will be based on the three papers and your participation in class discussion.

Assigned readings

Attached is a course outline with reading assignments. Note that, in general, we will discuss the readings assigned on a particular date at the next class meeting. It is essential that you keep up with the readings so you can participate in the class discussions, get the most out of them, and apply the readings to the assigned papers.
Paul Craig Roberts, "Overpopulation is not the Third World's Greatest Threat," BUSINESS WEEK, August 6, 1984: 10

Paul Craig Roberts, "Blaming the West for Third World Poverty," WALL STREET JOURNAL, August 27, 1984: 11


Chapter 2, Appendices I and II


Bruce Russett, "United States Energy Policy for Less-Developed Countries," THE JOURNAL OF ENERGY AND DEVELOPMENT, 39-

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<thead>
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<th>Date</th>
<th>Topic</th>
<th>Reading assignment</th>
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<td><strong>PART I: ISSUES, THE &quot;SYSTEM,&quot; ACTORS IN THE SYSTEM</strong></td>
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<tr>
<td>Sept 19</td>
<td>introduction</td>
<td>Hoffmann and Johnson, chapt. 1</td>
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<td>P.C. Roberts, both articles</td>
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<td>Sept 21</td>
<td>discuss readings</td>
<td>K. Hoffman</td>
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<td>Sept 24</td>
<td>speaker</td>
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<td>Sept 26</td>
<td>speaker</td>
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<tr>
<td>Sept 28</td>
<td>discuss readings</td>
<td>Hoffmann and Johnson, chapter 2</td>
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<td><strong>PART II: PATTERNS OF ENERGY SUPPLY, DEMAND, AND FINANCING IN DEVELOPING COUNTRIES</strong></td>
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<tr>
<td>Oct 1</td>
<td>discuss reading</td>
<td>World Bank, chapters 1, 2, 3</td>
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<td>Oct 3</td>
<td>discuss readings</td>
<td>FIRST PAPER ASSIGNED</td>
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<td>Oct 5</td>
<td>discuss readings</td>
<td>World Bank, chapters 4, 5, 6</td>
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<td>Oct 8</td>
<td>discuss reading</td>
<td>Hoffman and Johnson, chapter 5</td>
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<td>Oct 12</td>
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<td>Oct 24</td>
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<td>Oct 31</td>
<td>catch up</td>
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<td><strong>PART IV: THE ROLE OF MULTILATERAL AID AGENCIES</strong></td>
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<td>Nov 2</td>
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<td>Nov 5</td>
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<td>Hoffmann and Johnson, chapter 4</td>
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<td><strong>PART V: SUPPLIERS OF ENERGY TECHNOLOGY</strong></td>
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<td>Nov 7</td>
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<td>Nov 9</td>
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<td>Nov 12</td>
<td>discuss second paper none</td>
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<td>Nov 14</td>
<td>discuss reading</td>
<td>Hoffmann and Johnson, chapter 6</td>
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PART VI: ENERGY POLICY FOR TECHNOLOGY TRANSFER IN THE DEVELOPED NATIONS

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<th>Date</th>
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<tr>
<td>Nov 16</td>
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<td>Nov 21</td>
<td>discuss reading</td>
<td>Hearings on H.R. 3169, pp. 1-49</td>
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<td>Nov 26</td>
<td>discuss reading</td>
<td>Hearings, pp. 49-67</td>
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<td>Nov 28</td>
<td>discuss reading</td>
<td>Hearings, pp. 68-106.</td>
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<tr>
<td>Nov 30</td>
<td>discuss reading</td>
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<td>Dec 3</td>
<td>THIRD PAPER DUE</td>
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This course will investigate major themes in the economic and social history of Great Britain from the era of the industrial revolution in the eighteenth century up to the present. Among the topics discussed will be the British model of industrialization, the rise of the British working class, reform movements, relationships between industry and empire, the decline of British industrial supremacy, and British society in the twentieth century. Evaluation will be based on two tests, a final, and one outside research paper of 7-9 pages (typed doublespace). All paper topics must be cleared in advance with the instructor and final drafts are due on Monday, June 3.

Required Texts: (on sale at the Georgia Tech and Engineers' Bookstores)

Philip A. M. Taylor (ed.), The Industrial Revolution in Britain: Triumph or Disaster? (paperback)

Class Calendar and Schedule of Assignments:

April 3, 5
I. Introduction to British Studies
   A. British Geography and Society
   B. The Background to Industrialization
   C. The Rostovian Model
Reading: Webb, pp. 1-40 and Appendices 2, 3, 4, 5, and 6 (pp. 630-58)

April 8, 10, 12
II. The Industrial Revolution in Britain
   A. Revolution or Evolution?
   B. The British Model of Industrialization
   C. Demographic Trends in British Society
Reading: Webb, chapter 2; Taylor: Toynbee, Kay, Ure, and Ashton.

April 15, 17, 19, 22
III. The Human Results of the Industrial Revolution
   A. The Rise of the British Working Class
   B. The Emergence of Liberalism
   C. The Great Reform Acts
Reading: Webb, chapter 4; Taylor: Hobsbawm, Hartwell, Mantoux, and Chambers/Mingay.

April 24 -- First Test
Part A: Answer any three of the following questions.

1. What were the major technological and organizational developments in the 18th century revolution in the British cotton textile industry? (25 pts.)

2. Briefly compare the major ideas of Jeremy Bentham and J. S. Mill with those of the classical economists Thomas Malthus and David Ricardo. (25 pts.)

3. In terms of impressionistic evidence (John Kay and Andrew Ure) and statistical evidence (Eric Hobsbawm and Ronald Hartwell), compare some of the major arguments over the affect of industrialization on the British working class by the early 19th century. (25 pts.)

4. What was the relationship between Parliamentary enclosures and the British industrial revolution? Why has this issue been so debated? (25 pts.)

5. What were the major features of what Webb terms "The Constitutional Revolution, 1828-1832"? (25 pts.)

Part B: Answer one of the following.

1. Discuss the basic features of the British peerage system as outlined in Webb, Appendix 2). (25 pts.)

2. Briefly outline the administrative and hierarchical structure of the Church of England as described in Webb, Appendix 3. (25 pts.)

3. Describe the main features of the British currency system as it existed prior to decimalization in 1971, as explained in Webb, Appendix 6. (25 pts.)
Answer and four of the following questions; try to be concise and to the point. (25 pts. each)

1. Briefly discuss the significance of the corn law repeal and Cobden treaty system for the British economy at mid-nineteenth century.

2. What was "Chartism," broadly defined, and what was its impact on nineteenth century British politics and society?

3. In what particular ways does British social historian E. P. Thompson expand our notion of a working class consciousness in nineteenth century Britain?

4. Outline the main contributions of R. S. Neale (age-cohorts in Bath) and S. G. Checkland (latter Victorian urban planning) to our broader understanding of nineteenth century British industrial society.

5. "The great consensus in British politics in the nineteenth century ended with the emergence of a new Conservative and a new Liberal party led by Disraeli and Gladstone respectively." Briefly comment.

6. What were the major explanations for British industrial retardation from 1870 to 1900?

7. Using the ministries of Gladstone and Disraeli as backdrop, discuss some of the issues related to the "new imperialism" in the latter Victorian period.
Part I: Comprehensive essay (25%); answer one of the following.

A. The social history of Great Britain from the industrial revolution of the 18th century up to the present has largely revolved around the response to the problems posed by industrialism. Discuss the nature of these problems and evaluate attempts made to resolve them by 19th century Parliamentary reform legislation and the creation of the 20th century welfare state.

B. In a broad essay, chart the rise of the British economy to a position of world leadership and its subsequent decline to the status of relative weakness today. Cite some of the major factors responsible for both health and sickness in the British case.

Part II: Essays on last third of course; answer any three (25% each)

A. From 1905-1911 the Liberal Party enjoyed a strong political resurgence. From 1911 to 1914 it began to self-destruct. Discuss both the reasons for Liberal success (including some of their major accomplishments in office) and the forces which caused growing political problems after 1911.

B. Discuss the significance of the 1916 Easter Rebellion in Irish history. What events immediately proceeded it? What changes did it ultimately bring about for Ireland?

C. The interwar era (1919-1939) was a period of great hope and expectation as well as tremendous disappointment for the Parliamentary Labour Party. What happened to derail Labour's political success? Why did Ramsay McDonald's second ministry ultimately fail in the 1930s?

D. Winston S. Churchill was one of the giant figures on the British stage in this century. Evaluate his role in history during three separate periods: 1) as a minister under Lloyd-George during World War I; 2) as Wartime leader as PM during World War II; and 3) as Conservative PM during his second ministry after 1951.

E. Compare and contrast the efforts of the Conservatives when they were in power (Harold MacMillan, Alec Douglas-Home, Edward Heath with Labour governments (Harold Wilson, James Callaghan) in righting the British economy from 1957 to 1979. In what ways has the government of Margaret Thatcher since 1979 represented an attempted departure from the policies of both?
Course: HIST 4877-Chinese Science and Technology: 7000 Years of Discovery

Enrollment: 179 Students

Faculty: Dr. Melvin Kranzberg, Dr. Larry J. Schulz, Miss Linda Henson, Miss Connie Chang, Visiting Professor: Dr. Paul Godwin (Head, Chinese Research Division, Air University, Maxwell Field, Alabama)

Lecture Outline: (Two-hour classes)

1. Background: Chinese Language and Pronunciation (Schulz)
2-3. Fundamental Concepts of Chinese Religion and Philosophy (Schulz)
4-5. Development of Chinese Science and Technology (Kranzberg)
6-7. Transfer of Science and Technology: East-West and West-East (Kranzberg)
8. China's Role in International Affairs (Godwin)
9. Chinese Artisans (Chang)
10. Museum Exhibit and Installation (Henson, Chang, Schulz)

Lab Requirement: 10 weeks @ 3½ hours per week volunteer service at High Museum Exhibit of "China: 7000 Years of Discovery" (see attached exhibit announcement)


Final Examination: Take-Home (see attachment)
Note: The time designations indicate the relative weight to be assigned each question in grading. For example, a 30-minute question accounts for 50% of the grade on a one-hour exam.

Please answer in essay form, that is, full sentences and paragraphs.

1. (30 minutes) There were "three doctrines"—Taoism, Confucianism, and Buddhism—in traditional China.

Select two of the three doctrines, indicating their principal concepts and how these affected the thought and practice of Chinese science and technology.

2. (15 minutes) Answer either (a) or (b):

(a) Select either the Han dynasties or the Sung dynasty and indicate the principal political, social, economic, and cultural features—with special reference to their connection with scientific and technological developments.

(b) "The scientific ideas of the Chinese involved two fundamental principles, the Two Forces and the Five Elements."

Describe these two principles, how they correlated with one another, and how they helped or hindered the development of scientific ideas in Chinese civilization.

3. (15 minutes) Select three among the following five topics and indicate the approximate dates and main elements of their development in China, their principal technological features, and their spread and general impact on world civilization.

(a) Magnetism and the compass
(b) Silk weaving and embroidery
(c) Papermaking
(d) Printing
(e) Porcelain
(f) Gunpowder

* * *

The completed exams should be turned in at Dr. Kranzberg's office, rooms 215-216, D. M. Smith Building (Social Sciences) by 4 p.m. on Wednesday, November 28.

The next class will meet on Monday, January 14 in the Electrical Engineering Auditorium. The speaker will be Dr. Paul Godwin, Head of the Chinese Research Division at Air University. (The graded exam papers will be returned on this date.)
Marco Polo's China:
A Thirst for Discovery.
Perhaps Marco Polo's fascination with the China of the 13th century stemmed from his empathy with a people and a civilization whose thirst for discovery was as great as his own. Discovery that reached far beyond mere geographical exploration into the more personal, more intellectual realms of art, technology and science.

As you explore this China exhibit, you will literally be witnessing those same discoveries — in the form of pre-13th century artifacts and carefully reconstructed replicas — that overwhelmed Marco Polo and his explorers. Traditions and achievements which have left an indelible mark on Chinese society — and the world as we know it today.

A History of Tradition.
In the year 209 B.C., an army of 7000 life-size terra-cotta warriors, horses and ministers was entombed to guard the body of the First Emperor of Qin. Taking the place of real soldiers who traditionally accompanied their emperor to the grave.

As you will discover from this exhibit, tradition played a major role in the lives and creations of the ancient Chinese. Tradition, customs and lifestyles which are every bit as interesting as the artistic and technological masterpieces they inspired.

Inventions of War.
Although gunpowder was originally discovered by Chinese alchemists as an effective prescription for "ringworm sores, insects, eczema and pestilence," its explosive nature provided a spark for China's more military-minded inventors as early as the 8th century.

Among the incendiary artifacts included in our exhibit are early Chinese guns, rockets, bombs and multiple rocket launchers.

Of the Heavens and Earth.
A curiosity about their surroundings and a need to develop an overall natural order led the ancient Chinese to some of their most intellectually advanced discoveries.

In 1400 B.C., the Chinese were already using the stars to mark the seasons — and to predict and record solar and lunar eclipses in an effort to calm a popular fear that the sun or moon might never return. And the world's first planetarium was built by the 13th century Chinese to train imperial astronomers.

On land and sea, the Chinese were masters as well. Shipbuilding, exploration and natural phenomena were all passions with these ancients — inspiring the inventions of both the magnetic compass and the seismograph 1900 years ago.

Of Medicine and Health.
The human body, its functions and its maladies fascinated the ancient Chinese. And this exhibit's examples of Chinese medical technology — including 5000-year-old experiments with herbal medicines and displays of the 10th century art of acupuncture will provide the exhibit viewers with an unparalleled glimpse of medical origins.

The Art of Detail.
Attention to artistic detail has always been a trademark of China. And a grand selection of ancient silk embroideries, hand-carved figurines, ceramics, kites, architecture and more are included in this well-rounded tour of a civilization well ahead of its time.

A High Museum exhibit of ancient Chinese bronze and ceramic fine art will further explore the "art of detail" on the Museum's second floor.
China Exhibition Information

Exhibition Hours
Mon-Sat Noon to 7:30 p.m., Monday-Thursday; 10:00 a.m. to 7:30 p.m., Fri, Saturday; Sunday. Exhibition is open 7 days a week, including all holidays.

Tickets (on sale October 1, 1984)
Adults: $5.00
Seniors Citizens (65 and over): $4.00
Students/Children (18 or younger): $3.00
Advance purchase is advised. Just stop by any SAEAS outlet or make a mail order (self-addressed, stamped envelope). Check or Money Order made payable to CHWA, Georgia Tech Atlanta, 360 Ferst Drive, N.E., Atlanta, GA 30332. ADD $1.00 PER ORDER HANDLING FEE.

Date and time preference (please give second and third choices)
Charge tickets by phone at (404) 897-1003. VISA and MasterCard accepted. Standard service fees apply.

Tickets for same-day showing will be available during exhibit hours at a ticket kiosk outside the High Museum.

Chinese Art Exhibitions
In an extension of CHINA: 7000 YEARS OF DISCOVERY, the High Museum of Art will present CHINESE CERAMICS AND BRONZE ART AND TECHNOLOGY on the second floor. This is a group of ancient Chinese objects from American collections which were loaned from the Museum's permanent collection. The High Museum will also host its permanent collection of Chinese art and technology on one floor. Various educational programs, including lectures, tours, and workshops, will be conducted by the Museum. For more information, call 894-5188.

How To Find China In Atlanta
The High Museum is located at Peachtree and 12th Streets. Limited public parking is available.

Special Hotel Savings
Save up to 50% on some of Atlanta's finest hotels. For reservations, call 1-800-241-0802, in Georgia 1-800-282-0456. ADD $1.00 PER ORDER HANDLING FEE.

Recorded Tours
A 30-minute recorded tour of the exhibition, narrated by Jeannie Lane of Atlanta's WAGATV 5, will be available for $2.50 per person.

How To Find China In Atlanta
The High Museum is located at Peachtree and 12th Streets. Limited public parking is available.

Sponsors
Course Description and Objectives: This course is an introduction to the practice of Japanese management in the broader context of the historical socio-economic system. It is taught from a Western perspective and reflects Western value biases. It will focus on the managerial and commercial achievements of Japan as a world economic power with respect, among other, to the human, technical and production management systems. The reasons for the perceived Japanese successes in R&D commercialization, more recently innovation, high technology, product development and international trade in the post-World War II period will be analyzed. Future trends will be considered and the applicability of the Japanese lessons for the United States and the West will be considered. The course is based on lectures, selected readings, films, case analyses and guest speakers.

The course is team taught and multidisciplinary, offering students the benefit of the instructors' diverging training and experience. The course is experimental and is part of a U.S. Department of Education grant to promote the teaching of Science, Technology and International Affairs at Georgia Tech.


The Economist, Japan (Briefs on Japan's Political Economy) (New York: The Economist Newspaper Ltd, 1983). In the bookstore.

SCIS (Southern Center for International Studies, Atlanta), Papers on International Issues, Japan in the 1980's, No. 3, March 1982. Abbreviated SCIS No. 3. Made available free of charge to students.


Kinko package of reprints and occasional handouts.

Course Requirements and Grades:

1. One take-home mid-term examination (essay-oriented): 25% (BEFORE MID-TERM)
2. One take-home case study: 25% DUE MAY 16 in writing
3. One Final Exam: 40% (two parts: short answers in class; essay take-home)
4. Class participation and attendance: 10% (there may be occasional brief assignments to prepare).

Grading Scale: A: 100-90; B: 89-80; C: 79-70; D: 69-60; below 60: F.

Both instructors encourage students to meet with them during the quarter. Feel free to call.
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<th>INSTRUCTOR</th>
<th>TOPIC(s)</th>
<th>ASSIGNMENT(s)</th>
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<tr>
<td>April</td>
<td>McIntyre</td>
<td>Intro to the course; transferability of techniques &amp; culture; has Japan &quot;overtaken&quot; the West; overview of Jap. society &amp; culture (a film will be shown)</td>
<td>Gibney, pp. 3-19; F. D. Marengo, &quot;Learning from the Japanese: What and How?&quot; A. W Burks, &quot;Kokuminsei: who are the Japanese?&quot;</td>
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<tr>
<td>April</td>
<td>McIntyre</td>
<td>Post-1945 history, politics and institutions</td>
<td>A. W. Burks, &quot;Kindaika&quot; (Modernization), &quot;Post-War Politics &amp; Institutions&quot;; Optional: SCIS, No. 6, pp. 1-9 20-27.</td>
</tr>
<tr>
<td>1 April</td>
<td>Suzman</td>
<td>The Japanese Economy in Brief</td>
<td>The Economist, pp. 2-36; SCIS, No. 6, pp. 51-72; SCIS, No. 3, pp. 92-101.</td>
</tr>
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<td>27 April</td>
<td>Suzman</td>
<td>P&amp;D, Innovation, Commercialization: High Tecn, Patenting and Licensing</td>
<td></td>
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<tr>
<td>2 May</td>
<td>McIntyre</td>
<td>Government-Business-Labor Relations</td>
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<tr>
<td>DATE</td>
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<td>16 May</td>
<td>Suzman</td>
<td>Case Discussion &amp; Analysis of Picard (A) &amp; (B)</td>
<td>Written Case Report on Picard (A) &amp; (B) due today.</td>
</tr>
<tr>
<td>28 May</td>
<td>Suzman</td>
<td>Lessons for the West and Japan</td>
<td>Gibney, pp. 210-224; E. F. Vogel, &quot;Can A Western Nation Learn from the West?&quot; pp. 225-256</td>
</tr>
<tr>
<td>4 June</td>
<td>Suzman</td>
<td>overlap/catch-up time</td>
<td>finish above assignments</td>
</tr>
<tr>
<td>6 June</td>
<td>McIntyre</td>
<td>FINAL EXAM (short questions) IN CLASS (REQUIRED)</td>
<td>Essay questions due</td>
</tr>
</tbody>
</table>
APPENDIX II

NATIONAL CONFERENCE PROGRAM

AND LIST OF PARTICIPANTS
LOCATION

Fred B. Wenn Student Center
Georgia Institute of Technology
Room 320

Parking is available in the Visitor Parking Lot adjacent to the Student Center.

REGISTRATION FORM

There is no registration charge. Advanced registration is encouraged.

Please forward the following information to:

Dr. John McIntyre
School of Social Sciences
Georgia Institute of Technology
Atlanta, Georgia 30332

or call:
(404) 894-6838

CONFERENCE 1985

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INTERNATIONAL SPACE POLICY:
OPTIONS FOR THE TWENTIETH CENTURY AND BEYOND

May 16-17, 1985
Georgia Institute of Technology

Conducted by
Georgia Institute of Technology
School of Social Sciences
Science, Technology and International Affairs

Funded by
The U. S. Department of Education

Dr. John R. McIntyre
Conference Organizer
Dr. Daniel S. Papp
Co-Principal Investigator

Dr. John R. McIntyre
Conference Organizer
Co-Principal Investigator

Dr. Daniel S. Papp
Principal Investigator
INTERNATIONAL SPACE POLICY

PURPOSE

The conference is designed to explore the range of emerging issues relating to the options and constraints for international space policy. As a major U.S. policy concern as well as an increasingly salient factor in international affairs, academics, scientists, corporate executives and interested persons will find the formal presentations, group discussions and expertise represented at the conference of direct use and relevance. Four dimensions will be considered: U.S.-specific domestic issues, international economic/competitive issues, strategic military concerns and diplomatic/legal aspects. Proceedings will be published through the American Astronautical Society's Science and Technology book series.

AGENDA

— THURSDAY, MAY 16, 1985 —

1:00-2:15 REGISTRATION
2:15-2:30 WELCOME
Dr. Henry C. Bourne, Vice President, Academic Affairs, Georgia Institute of Technology
2:30-3:15 PLENARY SESSION ADDRESS
Dr. John M. Logsdon, Director, Graduate Program in Science, Technology and Public Policy, George Washington University
"Outer Space and International Policy: The Rapidly Changing Issues."
3:15-3:30 COFFEE BREAK
3:30-5:30 THE U.S. DOMESTIC CONTEXT: SELECT ISSUES PANEL
Chair: Dr. Philip Meeks, University of Georgia
Dr. James E. Katz, LBJ School, University of Texas at Austin
"New Directions Needed in U.S. Space Policy"
Dr. Walter J. Jones, Memphis State University
"International Security, Technology Transfer Controls and U.S. Space Policy"
Dr. Barbara Luxenberg, U.S. Patent and Trademark Office,
"Protecting Intellectual Property in Space: Policy Options and Implications for the U.S."
Discussants: Dr. Ray A. Williamson, Office of Technology Assessment, Washington
Dr. William Lasser, Clemson State University
6:45-7:30 COCKTAIL AND RECEPTION
Courtesy of TASP, Georgia Tech
Sheraton-Atlanta Hotel
7:30-9:00 DINNER AND KEYNOTE ADDRESS
Sheraton-Atlanta Hotel
Mr. James R. Morrison, Deputy Director, Office of International Affairs, NASA, Washington
"Should Space Policy Encourage International Affairs?"
Dinner Optional: $18 per person

— FRIDAY, MAY 17, 1985 —

8:30-10:15 DIPLOMATIC AND LEGAL DIMENSIONS PANEL
Chair: Ms. Dorinda G. Dalimeyer, J.D., The Rusk Center, University of Georgia Law School
Dr. Nathan Goldman, University of Texas at Austin
"International Space Law: Faults and Limitations"
Dr. Marvin S. Soroos, North Carolina State University at Raleigh
"Global Commons, Telecommunications and International Space Policy"
Dr. Philip J. Meeks, University of Georgia
"U.S. Foreign Policy and Outer Space; Economic and Security Choices"
Dr. Ray A. Williamson, Office of Technology Assessment, Washington
"International Cooperation and Competition in Civilian Space Activities"
Discussant: Dr. Vicki L. Golich, University of Southern California, Los Angeles
10:15-10:30 COFFEE BREAK
10:30-12:30 ECONOMIC AND COMPETITIVE DIMENSIONS PANEL
Chair: Dr. Frederick A. Rossini, Georgia Institute of Technology
Prof. Aaron Karp, Columbia University
"The Commercialization of Space Technology and the Spread of Ballistic Missiles"
Dr. Pamela E. Mack, Virginia Polytechnic Institute and State University
"Earth Resources Satellites: Commercialization, International Competition and the Public Good"
Dr. Henry R. Hertzfeld, Bethesda, Maryland and Dr. Frank Baradino, Getman Research Associates
"Economic, Market and Policy Issues of International Launch Vehicle Competition"
Dr. Jean Johnson-Freese, University of Central Florida, Orlando
"High Tech, High Cost: Reasons for Cooperation in Space?"
Discussant: Dr. Arthur L. Levine, City University of New York
12:30-1:30 LUNCH ON YOUR OWN
1:30-3:00 MILITARY AND STRATEGIC DIMENSIONS PANEL
Chair: Col. Robert W. Bush, USAF, Georgia Institute of Technology
Dr. Grant T. Hammonds, Rhodes College, Memphis
"The Militarization of Space"
Dr. Hans Gunter Brauch, Stuttgart University, Germany
"From Strategic to Tactical Defense? European Reactions to the Star Wars Vision"
Dr. Howard M. Hensel, Air Command and Staff College, Alabama
"Soviet Media Images of Superpower Space Policy: Instruments of Deception or Revelation of Soviet Objectives?"
Discussant: Dr. Daniel S. Papp, Georgia Institute of Technology
3:00-3:30 CLOSING REMARKS
Dr. Melvin Kranzberg, Callaway Professor of the History of Technology, Georgia Institute of Technology
Dr. Hans G. Brauch  
Stuttgart University  
Alte Bersteige 47  
D-6950 Mosbach  
West Germany

Mr. Alan Goldey  
Engineering and Advanced Systems  
Lockheed-Georgia  
Marietta, Georgia

Col. Robert W. Bush, USAF  
Military Science Department  
Georgia Institute of Technology  
Atlanta, Georgia 30332

Dr. Nathan C. Goldman  
(University of Texas at Austin)  
4605 N. Braeswood, 202c.c.  
Houston, Texas 77096

Maj. Wm A. Cade Jr., USAF, Ret.  
3186 Mathieson Dr. NE  
Atlanta, Georgia 30305

Dr. -Vicki L. Golich  
School of International Relations  
University of Southern California  
University Park, MC 0443  
Los Angeles, California, 90089-0043

Lt. Col. Bernie Claxton, USAF  
Maxwell Air Force Base  
Air Command and Staff College  
Montgomery, Alabama

Mr. Galen L. Goss  
U.S. General Accounting Office  
National Security and Intl Affairs Div.  
441 G St NW, Room 5148  
Washington, D.C., 20548

Ms. Sandra Cuttler  
Manager, Industrial Marketing & Planning  
Advanced Technology Development Center  
Georgia Institute of Technology  
Atlanta, Georgia 30332

Dr. Grant T. Hammond,  
Chair, Department of International Studies  
Rhodes College (formerly Southwestern  
2000 North Parkway  
Memphis, Tennessee 38112

Ms. Dorinda Dallmeyer, JD  
Director of Research  
The Rusk Center  
The University of Georgia Law School  
Athens, Georgia 30602

Dr. Howard M. Hensel  
Vis. Prof. of National Security  
Maxwell Air Force Base  
Air Command and Staff College  
Maxwell Air Force Base, Al 36112

Dr. James N. Davidson  
School of Mechanical Engineering  
Georgia Institute of Technology  
Atlanta, Georgia 30332

Dr. Henry R. Hertzfeld  
5208 Baltimore Avenue  
Bethesda, Maryland 20816

Mr. Gary Glegolttling  
Alumni Association  
Georgia Institute of Technology  
Atlanta Georgia 30332

Mr. Robert Lee Hotz  
Science Reporter  
The Atlanta Journal-Atlanta Constitution  
Atlanta, Georgia 30302
Dr Horace Jacobs
American Astronautical Society
PO Box 281310
San Diego, California 92128

Dr. Joan Johnson-Freese
Department of Political Science
University of Central Florida
Orlando, Florida, 32816

Dr. Walter Jones
Director, Institute of Governmental Studies and Research
Memphis State University
Memphis, Tennessee 38152

Dr. Prasanna V. Kadaba
School of Mechanical Engineering
Georgia Institute of Technology
Atlanta, Georgia 30332

Mr. Mark Kalman
General Dynamics
3500 Piedmont St
Atlanta, Georgia 30305

Mr. Aaron Karp
Instructor
Department of Political Science
Columbia University
New York, N.Y.

Dr. James E. Katz
LBJ School of Public Affairs
The University of Texas at Austin
Austin, Texas, 78721-7450

Dr. Melvin Kranzberg
Callaway Professor of the History of Technology
Georgia Institute of Technology
Atlanta, Georgia 30332

Dr William Lasser
Department of Political Science
Clemson University
Clemson, South Carolina 29631

Dr. Arthur L. Levine
Baruch College,
Department of Public Administration
City University of New York
Box 336
New York, N.Y., 10010

Dr. John M. Logsdon
Director, Graduate Program in Science, Technology and Public Policy
The George Washington University
Washington, D.C., 20052

Ms. Barbara Luxenberg
Executive Assistant to the Commissioner
U.S. Patents and Trademark Office
Office of the Commissioner
2021 Jefferson Davis Highway
Arlington, Virginia 2202

Dr. Pamela E. Mack
Department of History
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061-4095

Dr. John R. McIntyre
Technology and Science Policy Program
Georgia Institute of Technology
Atlanta, Georgia 30332

Dr. Philip J. Meeks
Global Policy Studies Center
The University of Georgia
Athens, Georgia 30602

Mr. James R. Morrison
Deputy Director
Office of International Affairs
NASA
LI-NASA Headquarters
Washington, D.C., 20546

Dr. Jeanne Murday
University of South Carolina
Columbia, South Carolina 29201

Mr. Anthony Pearson
Jet Propulsion Laboratories
4800 Oak Grove Dr.
Pasadena, California 91190

Mr. Darrell Preble
L-5 Local Chapter President
Southern Company Services
64 Perimeter Center E Bin 80
Atlanta, Georgia 30346

Mr. Ian Pryke, Director,
Washington Office
European Space Agency
955 L’Enfant Plaza, Suite 1404
Washington, D.C., 20024
Mr. Carl S. Rappaport
Senior Transportation Specialist
U.S. Department of Transportation
Office of the Secretary
Office of Commercial Space
Washington, D.C., 20590

Mr. Sergei Rogov
Embassy of the USSR
Washington, D.C.
(Institute of the USA and Canada, Moscow)

Dr. Frederick A. Rossini
Technology and Science Policy Program
Georgia Institute of Technology
Atlanta, Georgia 30332

Dr. Marvin S. Soroos
Department of Political Science
North Carolina State University
Box 8102
Raleigh, North Carolina 27695-8102

Dr. James R. Stevenson
Executive Assistant to the President
Georgia Institute of Technology
Office of the President
Atlanta, Georgia 30332

Ms. Frances E. Tafer
U.S. General Accounting Office
National Security and International Affairs Division
Washington, D.C., 20548

Ms. Ruilan Wang
China Science and Technology Association
Beijing, People's Republic of China

Mr. Ashish Sareen
Technology and Science Policy Program
Georgia Institute of Technology
Atlanta, Georgia 30332

Capt. Alan J. Watson, USA
APMS, U.S. Army Corps of Engineers
Department of Military Science
Georgia Institute of Technology

Dr. Ray A. Williamson
International Security and Commerce Program
U.S. Congress
Office of Technology Assessment
Washington, D.C., 20510

Mr. Lester Wilson
Givfirst Engineers
5047 Cascade Rd SW
Atlanta, Georgia 30331

Dr. Daniel S. Papp
Director, School of Social Science
Georgia Institute of Technology
Atlanta, Georgia 30332
APPENDIX III

NEW FACULTY C.V.
CURRICULUM VITAE

John W. Garver, Ph.D.
308 E. Jefferson, Apt. # 3
Ann Arbor, Michigan 48104
Telephone: (313) 769-1899

EDUCATION:

Degree Oriented Studies:


B.A., Political Science; B.S., Psychology, Oklahoma State University, June 1968.

PROFESSIONAL EXPERIENCE:

Fall 1984 Visiting Research Associate. Center for Chinese Studies, University of Michigan. Lecturer, Department of Political Science, Eastern Michigan University. Working on book on China's foreign relations and teaching two sections of American government.

Spring 1984 Liaison Representative of Pomona College's exchange program with Nanjing University in the People's Republic of China. Administration of exchange program including negotiations with Nanjing University, supervising students, and teaching course on Chinese politics.

Fall 1983 Sinologist. Lindblad Travel Company. Accompanied tour ship M.S. Kun Lun up and down the Yangtze River. Taught general China studies.

1982-83 Research Fellow. Stanford Center and Academica Sinica in Taiwan. Intensive language study and research on China's 1937-45 international relations at KMT Committee on Party History, Academica Sinica, Bureau of Investigation, Institute of National History, and National Taiwan University.


1980-83 Political Risk Analyst. Business Environment Risk Information, Hyattsville, Maryland. Wrote reports relating to political and economic conditions, developments, and risks in various Asian countries.

1980 Adjunct Faculty. School of Area Studies, Foreign Service Institute, U.S. Department of State. Organized and chaired courses on East Asia and Chinese politics.


1978 Research Scholar. Universities Service Centre, Hong Kong. Research work.

1977 Instructor. University of Maryland, Overseas Program, Taiwan. Taught international relations and U.S. foreign policy courses.

Instructor. National Chengchi University, Taipei, Taiwan. Taught English language classes.

1976-78 Research Scholar. Institute for International Relations, Mucha, Taiwan. Dissertation research work.

1973-75 Instructor, Teaching Assistant, Department of Political Science, University of Colorado. Taught courses on politics of developing countries. Assisted teaching courses on introductory political science.
PUBLICATIONS:

Books


Articles


"Sino-Vietnamese Conflict and Sino-American Rapprochement," *Political Science Quarterly* 96.3 (Fall 1981).


Chapters


Book Reviews


Review of *China Under Threat*, by Melvin Gurtov and Byong-Moo Hwang, in *Journal of Politics* (Fall 1982).


CONFERENCE PAPERS PRESENTED:


FOREIGN LANGUAGES:


German.
FELLOWSHIPS AND GRANTS:

Research Fellowship. Inter-University Program for Chinese Language Studies in Taibei, administered by Stanford University and the Committee on Scientific and Scholarly Communications with the USA of Academia Sinica. 1982-83.


Research grant. Oakland University. 1980.


FOREIGN RESIDENCE AND TRAVEL:

1984 Summer travel in Eastern Europe.


Fall 1978 Traveled in Southeast Asia, South Asia, and the Middle East.

1976-78 Resident scholar in Taiwan and Hong Kong. Traveled in Japan and South Korea, and through the U.S.S.R. via Siberia.


1967 Worked for summer in Federal Republic of Germany. Traveled in West European countries.

OTHER SALIENT SKILLS AND EXPERIENCES:

Familiar with various research methodologies: content analysis; refugee interviewing; design and administration of attitudinal surveys; quantitative techniques for specifying variable relationships; experimental and quasi-experimental methods of psychological research.

Two years military service. U.S. army, 1969-70; Honorable Discharge.

Worked one year in steel fabrication shop and six months as hard-rock miner.

Involved in setting up and running tutoring program for disadvantaged children in rural Oklahoma as an undergraduate. Active in publishing community newspaper in Colorado and in working with community groups. Experience at public speaking.

REFERENCES:

Professor Lawrence W. Beer, Head
Kirby Hall of Civil Rights
Lafayette College
Easton, PA 18042 USA
(215) 250-5390

Professor James E. Dew, Director
Inter-University Program
P.O. Box 13-204
Taipei, Taiwan
341-9123

Professor Allen S. Whiting
Dept. of Political Science
University of Arizona
Tucson, AZ 85721 USA
(602) 626-2911

Professor Leonard B. Weinberg
Dept. of Political Science
University of Nevada, Reno
Reno, NV 89557 USA
(702) 784-4601

Professor Peter Van Ness
Graduate School of International Studies, University of Denver
Denver, CO 80201 USA
(303) 753-2753

Professor Conrad McBride
Dept. of Political Science
University of Colorado
Boulder, CO 80309 USA
(303) 492-7871

Placement file containing letters of recommendation is available from:

Career Placement Service
10 Willard Administration Annex
University of Colorado
Boulder, CO 80309 USA