GTD 501 Global Technology and Development (3 credits)

Fall Semester 2015 – Session A (GTD Campus Program)
August 20 – October 9, 2015
Class meets on Tuesdays from 6:00 – 8:45, Tempe, ECG G 317
This Hybrid Class also meets as an iCourse on Blackboard throughout the Session

Mary Jane C. Parmentier, Ph.D.
mj.parmentier@asu.edu
480-727-1156
Office: Tempe INTB 366

M.S. in Global Technology and Development Program
School for the Future of Innovation in Society
Consortium for Science, Policy and Outcomes

Course Description:

This hybrid graduate seminar (partially in class, partially online) will introduce you to the field and study of international or global development, with an emphasis on the variable of technology. How is technological development affecting societies around the world at the beginning of the 21st century? Will the expansion of technology increase or decrease the disparity of wealth around the world? How can technological solutions be applied to problems in developing countries? Is globalization the problem or the solution? These are some of the questions that you will consider this semester. You will be introduced to the central themes and questions of globalization, technology and development, and explore central concepts from economic and social development theory (political development is more the focus in GTD 503). A background and framework will be established for examining the role of technology in this context, including societal perspectives on technology, and for integrating social science approaches with the study of technology. The broad and multidisciplinary content is designed to introduce you to the relevant spheres of research and literature, and during the course you will be encouraged to begin to identify your area of interest. This is one of the core courses in the M.S. in Global Technology and Development program. Graduate students from other programs who are interested in development and global issues are welcomed as well.
Required Texts:


Note: These books contain classic material on global development, history and the ‘information revolution.’ Other required readings that reflect the most current approaches, research, or perspectives are included as well, and are detailed below in the weekly schedule, and are all available on our course site.

Goals and Outcomes:

The goals of the seminar include defining the field and concept of development, distinguishing between the various theories and approaches to development, analyzing the role of technology, and the subsequent policy implications. You will be invited to explore many approaches to the study and practice of technology and development, and you will be expected to critically formulate your own views. Thus, your critical thinking and communication skills will be further developed as well. Specifically, you will:

- Articulate, verbally and in writing, the major theoretical foundations of development, such as modernization, dependency, human-centered development and sustainable development
- Synthesize the presented material and develop your own concept of development.
- Identify theories of technology and offer perspectives on the role of science and technology in the development process.
- Discuss the processes of globalization and how they relate to development.
- Apply theories and models to a critical review of a selected nation-state’s national technology policy, as well as to a case study of an international development project.

Final grades are based on seminar participation and the assessment of the required written work.

<table>
<thead>
<tr>
<th>Paper 1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper 2</td>
<td>100</td>
</tr>
<tr>
<td>Paper 3 (revision)</td>
<td>100</td>
</tr>
<tr>
<td>Class Participation</td>
<td>150 (class, peer review, critiques)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>450</strong></td>
</tr>
</tbody>
</table>

The Grading Rubric for written work is based on the following criteria:

Knowledge – You demonstrate comprehension and can describe main theories and concepts in the field.
Analysis and evaluation – You identify possible gaps in the literature and holes in the research and argumentation.
Synthesis – You integrate and clarify the various views presented by scholars, articulating your own view in the process.
Application – When appropriate, you use theories and concepts in current, real world situations.
Communication – You are able to clearly present ideas, showing proper use of language and grammar, with papers written neatly and organized logically, and you are prepared to discuss orally.

Grading Rubric:

- A (93-97%). Discusses the literature, shows clear understanding of theories and concepts, ideas thoughtfully reflected upon, own distinctive view visibly constructed (A+ - 98% + is exceptional and very rare!)
- A (90-92%). Discusses literature, shows understanding of theories and concepts presented, ideas reflected upon, own view visibly constructed
- B+ (88-89%). Discusses some of the literature, shows understanding of theories and concepts presented, reflects upon ideas
- B (83-87%). Mentions some of the literature, shows some understanding of theories and concepts, some reflection upon ideas
- B-/C+ (78-81%). Inadequate engagement of literature, shows little understanding of theories and concepts, lacks useful reflection of ideas
- C/D (60-70%). Little or no engagement of literature or ideas
- E (0%) No paper

To determine your final grade, divide your final point total by the total points available in the class (450). The chart below is the ultimate arbiter of final grades and will be strictly interpreted. The Instructor will exercise discretion only where point values fall between grade categories.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>98-100%</td>
<td>441-450</td>
</tr>
<tr>
<td>A</td>
<td>93-97%</td>
<td>419-437</td>
</tr>
<tr>
<td>A-</td>
<td>90-92%</td>
<td>405-414</td>
</tr>
<tr>
<td>B+</td>
<td>88-89%</td>
<td>396-401</td>
</tr>
<tr>
<td>B</td>
<td>83-87%</td>
<td>374-392</td>
</tr>
<tr>
<td>B-</td>
<td>80-82%</td>
<td>360-369</td>
</tr>
<tr>
<td>C+</td>
<td>78-79%</td>
<td>351-356</td>
</tr>
<tr>
<td>C</td>
<td>70-77%</td>
<td>315-347</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
<td>270-311</td>
</tr>
</tbody>
</table>
| E     | 59% or less| 236 points or fewer

Requirements:

This course requires **active student participation.** Together, we will discuss the issues and various perspectives, with concepts explained and clarified when necessary with occasional ‘mini lectures’. You are required to be well prepared for each class by carefully reading and analyzing the required chapters or essays, and to participate actively in all class discussions, both online and face to face. You are also expected to keep up with world news and events, by choosing quality media sources of international news. We will discuss in class what these could be if you are not sure.
**Discussion Board:**

Regarding all online discussions, proper online etiquette should be observed at all times: i.e., no ‘shouting’ with capital letters, no name calling, and show respect and restraint when stating opinions and responding to others, especially when you disagree (and it is fine to disagree, as long as you do so respectfully!). Disruptive or inappropriate behavior in the course may result in immediate removal from the Blackboard site and the receipt of an email from me. Also, please observe traditional grammatical rules in your postings – i.e., capital letters where necessary and full spelled out words and phrases. In general, discussion board posts should be 500 to 700 words.

The criteria for grading your class discussion board participation include the following:

- Posting insightful comments that reflect an understanding of the course material and prompt on-topic discussion.
- Writing comments that reflect complete thoughts and ideas that are clearly articulated.
- Clarifying, synthesizing, or asking insightful questions to another student’s comments.
- If disagreeing with other students’ ideas, the participant states his/her disagreement or objections clearly, yet respectfully.

**Papers:**

Three short essay type papers that review and critique the literature, 6-8 pages double-spaced each, are required and due according to the syllabus. The first and third paper should be discussions and critiques of the assigned class readings, and must also include at least one additional and related piece of academic literature (peer-reviewed) from outside of the course to incorporate into the paper. The second paper is to be on a topic chosen by you, but clearly related to the course themes and topics. For this paper, you must have at least five relevant sources, three of which must be from academic journals. Furthermore, this paper will be submitted first to another student in the class for your own peer review experience. This peer review will give each of you the opportunity to assess the work of fellow graduate students, receive their feedback to enhance your own work, and learn some additional material in the process! All papers must be properly cited and formatted, with a reference page in alphabetical order, APA style required.

The topics for the essay papers are as follows. Remember, for the first and third paper, you must bring the class readings into your discussions, critiquing the various approaches, plus at least one additional article from an academic journal. Each paper is worth 100 points and is due by midnight of the dates listed further below. The questions following the first one (in bold) are meant to assist in the development of the paper – you do not necessarily need to answer each one, and you can also focus on a particular aspect of the topic.

**Paper #1: Development**

What is development? This is really the essence of this first paper, challenging you to consider the various emphases that have characterized the field (for instance, development as purely economic development is a strong theme), considering what concepts such as developed and developing country, quality of life, basic needs, distribution of wealth, etc. mean. You should
demonstrate a clear understanding of the literature we have read, and at the same time show at the least the beginning of an articulation of your view – it might be evolving!

Paper #2: Your Choice
That is, your choice from any of the topic and subtopic areas we cover in the course, per the syllabus. You must include 5 sources, at least 3 of which are from academic journals. This paper will be a mini literature review on a specific topic that you choose.

Paper #3: Technology and Development
What role does technology play in development? Has this changed from era to era? Are there unintended consequences? How can policies effectively apply technology to development issues and avoid negative consequences? You can bring in the theories of technology, historical examples as well as current trends in your paper, such as national and global ICT4D strategies. Here we want to consider the variable of technology in the context of our previous discussion of development.

Fall 2014 Session A Course Schedule:

Week 1: 8/25 (class begins online 8/20) What is development?
Objectives:
Define development as a concept, theory and strategy
Identify historical context of development theoretically and as a field
Consider hegemony of Western approaches

Required Readings:
Halperin, Re-Envisioning Global Development, pp. 1-90
Additional to be posted: recent news articles

Week 2: 9/1 Globalization Past and Present
Objectives:
Gain historical perspectives on globalization
Explain the current era of globalization and contrast its varying effects worldwide.
Examine the relationship between globalization and development.

Required Readings:
Halperin, Re-Envisioning Global Development, 199-225
(McMichael, Sklair, Friedman); pp. 295-304 (Stiglitz)
Manuel Castells. (2000). The Rise of the Network Society, Prologue and Chaps. 1, 2 and 4

**Week 3: 9/8 Development theories and paradigms**

**Objectives:**
Review the central theories of development  
Modernization, neoliberalism, dependency  
Contrast and evaluate the theories for their explanatory power and usefulness

**Required Readings:**
Martinussen, pp. 56-128  
Roberts and Hite, pp. 1-135 (Marx, Weber, Rostow, Huntington, Frank, Cardoso, Wallerstein, Gereffi, Moghadan)  

**Week 4: 9/15 Human Development**

**Objectives:**
Evaluate human development and development as freedom  
Contrast with traditional approaches and assumptions  
Review UNDP and the Millennium Development Goals

**Required Readings:**
Martinussen, pp. 289-295 and 331-341  

**Paper #1 Due 9/15**

**Week 5: 9/22 Science, Technology and Development**

**Objectives:**
Define technology and appraise its cultural meanings  
Examine the conceptualization of the role of science and technology in development  
Evaluate and critique approaches and policies for technology and development
Required Readings:

Heilbroner. *Do machines make history?* in Marx and Smith, pp. 53-78 (website)
“Prologue,” pp. 3-13; and *Pioneers of mechanization*, pp. 263-294 (website) –


Week 6: 9/29 Socio-technological Systems, Development and Change

Objectives:
*Interpret the social, economic and political dynamics of technological change*
*Identify and describe a socio-technological system*
*Assess technology policies as tools for development*

Required Readings:

Castells, Chapters 5-7, and conclusion

Paper #2 Due September 29th (midnight) and uploaded for peer review
Peer Reviews of Paper #2 Due October 6th latest (midnight)

Week 7: 10/6 National technology policy and global case study critiques

Presentations for discussion:
A. Choose a country and critique its official technology policy, or science and technology policy (in some countries it is combined), in the context of the development issues for that country. Does it make sense theoretically and practically? Is there evidence that the policy is effective? What would you recommend differently? Why? Your main source should be official documents, found online, from your case country.
B. Summarize and critique a development project, featuring science and/or technology, from an international organization (UN, World Bank, etc.), a regional organization (EU, Andean Community, etc.), an international non-governmental organization (Engineers without Borders, etc.), or a national development agency (U.S.A.I.D., etc.). In your critique use at least one of the approaches or perspectives from the assigned readings.

Final Assignments Due:

Paper #3 Due October 10th

Arizona State University Academic Policies:

Plagiarism:

Academic integrity and honesty is expected of all students at Arizona State University, and is so stated in the ASU Student Code of Conduct (available at http://www.asu.edu/studentaffairs/studentlife/judicial/). Plagiarism or cheating can result in the grade of "XE". The XE grade denotes failure through academic dishonesty. For more information on plagiarism and the ramifications of academic dishonesty see: http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm. Students are responsible for understanding these policies and following proper academic research and citation protocol.

Accommodations for Disabilities:

Accommodations for disabilities are made according to the policy of Arizona State University, which is in compliance with the Americans with Disabilities Act. For more information on ASU's Disability Resource Center see http://www.asu.edu/studentaffairs/ed/drc/

Incomplete Policies:

According to University grading polices (https://students.asu.edu/grades), a grade of "I" (incomplete) may be given by an instructor when a student is otherwise doing acceptable work but is unable to complete the course because of illness or other conditions beyond their control. In this course acceptable work assumes that at least 50% of the written coursework has been completed. Incompletes must be completed with a calendar year; after that the "I" changes to an "E". The student must complete Request for Incomplete Form, and deadlines must be set with the instructor for the completion of the work.

Title IX:

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education
program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at http://sexualviolenceprevention.asu.edu/fqas/students.