Instructor: Michael Kapfer  
eMail: mkapfer@gmu.edu  
Office Hours: 30 minutes prior and after class or by appointment  
Class Location: Bull Run Hall - Room 256  
Class Time: Wednesday 1:30 - 4:15

Pre-requisites: To be eligible to take IT 304, students must have already completed, earning at least a grade of C in one of:  
➢ IT 103 Introduction to Computing  
➢ IT 104 Introduction to Computing

Note: Students cannot receive credit for both IT 304 and (CS 305 or CS 306)  
IT 304 fulfills the general education (Mason Core) requirement in Information Technology (ethics only).

Description: Other courses in the BS IT program examine technologies and how they use them effectively. IT 304 looks at the consequences of using IT; it explores how IT changes the nature of society and contributes to evolution within the global economy. It examines the changing nature of work, education, and communication, as well as ethical issues such as intellectual property rights, computer-related crime, privacy concerns, and public policy issues.

Course Objectives: From taking this course, students will:  
● Gain an appreciation for:  
  ○ Rapid rate of technological change and its impact on societies around the world  
  ○ Role of IT in:  
    ■ The globalization of economies, crime, culture, and shifts in global power  
    ■ The changing nature of work, governance, identity, communications, and loss of privacy  
    ■ Creating a global civil society and facilitating the work of NGOs, and consortia  
    ■ Economic development and meeting UN Millennium Development Goals  
  ○ Have a basic understanding of the international laws and treaties in place with respect to e-commerce, intellectual property, computer-related crime, taxation and trade  
  ○ Gain knowledge of professional codes of ethics, ethical decision making models and processes  
  ○ Appreciate how growing reliance on IT affects the environment

Religious Holidays: A list of religious holidays is available on the University Life Calendar page. Any student whose religious observance conflicts with a scheduled course activity must contact the Instructor at least 2 weeks in advance of the conflict date in order to make alternative arrangements.

Grade Distribution: The final grade for this course will be computed from:  
● Midterm Exam 20%  
● Final Exam 20%  
● Quizzes 20%  
● Research Papers 20%  
● Homework 10%  
● Student Participation 10%
Communication

Registered students will be given access to a section of the Blackboard Learning System for this course. Blackboard will be used as the primary mechanism to disseminate course information, lecture slides and materials, any lab project(s), and homework assignments. Communication with the Instructor on issues relating to the individual student should be conducted using GMU email, telephone, or in person meeting; …not in public forums on Blackboard.

Course Policies:

Late work for homework can be accepted, but and will be subject to late penalties. Homework materials will not be accepted after 1 week past the due date so that discussions can be held with other students. Quizzes may not be submitted late as the answers are posted to students the day following the due date. All quizzes are due by Monday night following the Wednesday class. Every week there will be a quiz or homework assignment except for the week before the midterm and the week before the final exams.

Students concerned about meeting course requirements should discuss these with the instructor in advance of the due date. Missed exams must be arranged with the instructor before the exam date. All students must be present, on campus, to write exams in this course.

While students are encouraged to discuss topics and solutions to problems, students must submit their own, original work. All students are expected to abide by the George Mason Honor System and Code (which contains a definition of plagiarism, amongst other things). Plagiarism will not be tolerated. This is an IT ethics class and you are IT professionals. All assignments, unless otherwise noted, are to be individual efforts. It should always be clear which words are yours and which are derivative or someone else’s. If you are unsure how to cite a quotation properly, ask for assistance. Do not paraphrase. If you have questions or need help with writing, please ask or contact the Writing Center.

Note that student work will be submitted for automated testing against other submitted work to confirm a submission’s originality.

Lectures are interactive and electronic interaction tools will be used. Students should bring electronic devices such as smartphones, tablets, or PCs to class. Students should verify they have access to the GMU network for Internet access as part of the lectures.

Grading

The grading scale for this course is:

- 97 – 100% A+
- 93 – 96% A
- 90 – 92% A-
- 87 – 89% B+
- 83 – 86% B
- 80 – 82% B-
- 77 - 79 C+
- 73 - 76 C
- 70 - 72 C-
- 67 – 69% D+
- 60 – 66% D
- 0 – 59% F

Team Research Paper and Presentation

Each student will join a group to develop and submit three (3) well researched technical papers which will be submitted at various times throughout the semester. Students will select from a collection of topics from which to develop their papers.

Each group is required to choose, write and submit a scholarly research paper (~3 pages + a cover page) describing the impact of an emerging technology from a list of technologies and describe: (paper 1) The Economic impacts; (paper 2) The Ethical impacts; and (paper 3) the overall IT risks, risk mitigations, and impacts of the technology across the world.

Textbook:

There is no textbook for this course. There is a directed reading list of articles that are required reading. All articles are available online (almost all at the GMU library website). Your instructor will provide the list of readings to your section - not all sections necessarily have the same readings.

Student Participation

Since no mandatory textbook exists for this course, it is vital that all students attend lectures and ask clarifying questions, as this will be the principle means for conveying key concepts. There will be multiple in-class exercises which will be factored into the participation score. Student participation grades will be determined by the following:

- Participation in class discussions
- Participation with in-class exercises - note: there are a lot of these
- Class attendance
Campus Services: Several services are available to students and you are encouraged to make use of them as you may need:

Writing Center: A114 Robinson Hall; (703) 993-1200; http://writingcenter.gmu.edu

Disability Services: If you are a student with a disability and you need academic accommodations, please see your instructor and contact the Office of Disability Services (ODS) at (703) 993-2474. All academic accommodations must be arranged through ODS (http://ds.gmu.edu) and be arranged before any accommodation is needed.

Counseling and Psychological Services (CAPS): (703) 993-2380 http://caps.gmu.edu

Examinations

The Midterm and Final Exams will be held in-class during the regular lecture period. Exams will include a variety of question types including multiple choice, true/false, matching, short answer, and essay questions that will require a solid understanding of course materials. The final exam will be held during the scheduled final exam period posted on the GMU Registrar's website: http://registrar.gmu.edu/calendars/

All exams will take place on the same campus as lectures but may be in a different room depending on room availability. The location of the exam will be communicated at least 2 weeks prior to the exam. All work on the exam must be your work, no assistance from others is allowed.

Students will need to bring a writing implement to each exam and may not use the color Red. The exam will be taken in an exam booklet provided by the instructor. Students must also bring proper photo identification (Student ID, Drivers license, etc.).

Make-up exams will only be given to students with highly legitimate excuses such as a documented medical issue, family emergency, or exam conflict with another GMU course. Makeup exams will typically be given in the paper format. **You must contact the instructor well in advance of the exam date if possible (i.e., typically more than two weeks prior).** Date/time conflicts with a job are not acceptable excuses.

University Policy:
The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at http://universitypolicy.gmu.edu. All members of the university community are responsible for knowing and following established policies.

Course on-line Resources:

Announcements, materials, and related resources for this course are available on-line through: Blackboard at https://blackboard.gmu.edu

All assignments (homework, discussion topics, checkpoints) are submitted through blackboard.

Lecture Topics and Sessions

This list is subject to revision during the semester.

<table>
<thead>
<tr>
<th>Week</th>
<th>Class Date</th>
<th>Content</th>
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<tbody>
<tr>
<td>1</td>
<td>28 Aug</td>
<td>Introductions. Historical perspective on economic change: overview of Economics, including Agricultural and Industrial Revolutions, the service-based economy and transition to the Information Age</td>
</tr>
<tr>
<td>2</td>
<td>04 Sep</td>
<td>Economics I. Understanding economic theory and background. Definitions. <strong>Groups identified and submitted by 08 September</strong></td>
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<tr>
<td>3</td>
<td>11 Sep</td>
<td>Economics II. Major players in the world economy. Understanding impacts across various world economies.</td>
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<td>Date</td>
<td>Topic</td>
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<tr>
<td>25 Sep</td>
<td>Ethics. Background of ethical thought and philosophical theories around ethics</td>
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<tr>
<td>09 Oct</td>
<td>Government impact on IT. How government is organized around enabling IT, information decision making and levels of education. Laws around data protection and digital rights management.</td>
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<tr>
<td>16 Oct</td>
<td>Innovation. Discuss roles of IT in developing education, extending reach of technology across the world, investment in technology and return on value. <em>Midterm exam review</em></td>
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<td>23 Oct</td>
<td><em>Midterm Examination</em></td>
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<td>30 Oct</td>
<td>Cyber Security. Encryption and keys; safeguarding information, Internet of Things; Distributed Denial of Service Attacks; Access Controls. <em>Research Paper 2 (Ethical Impact - due before Sunday, 03 Nov midnight)</em></td>
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<td>06 Nov</td>
<td>Regulating the Internet. Standards governance, IETF, ISO, InterNIC; Size of Internet (IPv4, IPv6); channels and infrastructure; ITAR. News, news sources; ubiquitous and pervasive computing.</td>
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<tr>
<td>13 Nov</td>
<td>Modeling and Data Analytics. Impact on social discussion; data and information as separate concepts; big data, discovery, and privacy</td>
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<td>27 Nov</td>
<td>Thanksgiving Break</td>
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<tr>
<td>04 Dec</td>
<td>Monetizing IT. Limits to corporate actions to increase shareholder value; ethics; influence of language; altruism and economics, electronic currency. <em>Final Exam Review</em></td>
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<tr>
<td>11 Dec</td>
<td><em>Final Exam</em> (subject to change, confirm with Registrar’s website)</td>
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