ITEC 101
Introduction to Information Technology

Spring 2016

Instructor: Dr. Donald Rallis

Class Hours
Section 1: MWF 0945 – 1045
Section 2: MWF 1300 – 1400
Class meets in the Computer Lab

Office Hours:
MWF: 1045-1145
T Th: 1400 - 1500

Email: rallis@aupp.edu.kh
Course website: www.itec101.net

Catalog description: ITEC 101 – Introduction to Information Technology

This course is an overview of information technology (IT) and introduces students to a variety of IT areas. Course topics include: office applications, basic computer hardware, networking and security, and webpage creation and programming. Problem-based learning will be used to improve skills such as teamwork, written and oral communication, problem-solving, troubleshooting and project management.

Prerequisite: Completion of or enrollment in ENGL 101.

Student Learning Outcomes/Course Objectives

By the end of the course, successful students will demonstrate that they have acquired some of the skills they will need to prepare them for the ongoing process of learning about, evaluating, and using digital information technologies and applications. Specifically, they will be able to:
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1. Demonstrate that they can use a personal computer or mobile device for accessing the internet and use basic computer applications such as e-mail, Powerpoint, Excel and common webpage creation tools.
2. Demonstrate that they can use digital technology in research, analysis, and critical inquiry.
3. Demonstrate an understanding of the concepts of online security and privacy.
4. Demonstrate knowledge of information technologies and digital cultures, both historic and contemporary, and be aware of the social, ethical and philosophical issues related to technological development.
5. Demonstrate that they can evaluate and explain the on-going changes in digital technology and their impacts on society.
6. Demonstrate that they can apply a variety of information technologies to their own work, demonstrating their competence in researching, creating, and presenting projects using a variety of digital information tools.

Introduction to the Course

The purpose of this course is to answer some of the many questions about the existence of and changes in information technology, with a specific focus on recent changes in the field. We will discuss the origins of information technology, how it has developed over time, and how it is changing the nature of social relations. We will identify and evaluate the ways in which information technologies are changing and how we might expect them to change in the future. This course will introduce students to a variety of information technologies that they will be able to use in other courses, and in their careers, and in their personal lives.

ITEC 101 is therefore a roadmap and guide to the complex history and contemporary changes in information technology. This is not a ‘how-to’ course; as a student in the course you will gain an overview of some of the many technologies and applications currently available, you will learn how to use some of them, and it will be up to you to decide which of these you find most useful, for what purposes, and which technologies wish or need to learn more about. Rather than trying to be exhaustive, the course seeks to introduce you to a wide range of programs applications, hardware, and techniques that are currently being used in business, academia and in society.

Bear in mind, though, that technology changes rapidly, and in your career (and even in your further studies) you will be using technologies and applications that do not yet exist, and it will be up to you to teach yourself how to use them. The main aim of this course is therefore to get you to think and ask questions about how technology is used, to imagine ways it can be of use to you now and in the future, and to learn how to learn to use them.
Required Readings

There is no single required text in this course. Links to online readings will be made available to students electronically via the course website, and readings not available freely online will be provided to students electronically via the course website and/or email. All required and recommended readings are listed on the online Course Calendar; and will be updated during the course of the semester (often to include readings, news, and other materials that are published during the course of the semester.)

Additional Resources

All additional resources will be available on-line, on the course website, or sent by email by instructors.

Technical and Communication Requirements

Students will need access to a personal computer (with a recent Windows or Mac operating system) for word processing, research, and out-of-class assignments, as well as access to a high-speed internet connection. If you do not own a computer, you may use the computers in the AUPP Library and Computer Lab.

ITEC 101 is a paperless course. All assignments, projects, and papers (with the exception of occasional in-classes quizzes) will be completed and submitted electronically. Communication will be through the official AUPP email system (not using personal email addresses,) and through the course website and shared Google tools (e.g. Google Drive, Google Docs.) Students will be expected to check their AUPP email and the course website daily.

All students must also have a Twitter account, and follow the course Twitter feed, auppitec101 (@dnr_auppitec101).

Course Requirements

This course will consist of weekly in-class and homework assignments, both individual and collaborative. In addition, students are expected to read all reading, viewing, and/or listening assignments before class, and come prepared to discuss the assigned work.

Grading Criteria

The final grade in this course will consist of the following components.

1. Regular assignments and presentations (Individual and collaborative) 40%
2. Mid-term exam 20%
3. Contribution to class and online discussions 10%
4. Final exam (including project and presentation) 30%
The grading scale in this course follows that detailed in the AUPP Student Handbook, downloadable from the University website.

**Attendance**
In accordance with AUPP policy, students are required to attend all classes, and to be in the classroom and ready to be at the scheduled class time. All absences and late arrivals will be reported to the University Registrar on a weekly basis. For more details on the University’s attendance policy in this and all AUPP courses, see the Student Handbook.

**Incomplete Grade**
Requests for incompletes are processed in accordance with the AUPP procedures outlined in the College’s catalog. In summary, requests for incompletes will only be considered in extenuating circumstances where:

- The student has completed at least 70% of the course work;
- Student has at least a “C” average of work completed;
- There is appropriate documentation supporting the extenuating circumstance;
- Request is made at least one-week prior to when semester grades are due.

Please do not request an Incomplete unless you meet the required conditions.

**Withdrawals**
Withdrawals are processed in accordance with procedures outlined in the AUPP catalog, available for download on the AUPP website or from the Office of the Registrar. The final date for withdrawals is posted on Academic Calendar on the AUPP website; no withdrawals are allowed after this date. Withdrawals will appear on a transcript as a “W”.

**Late Work**
You must turn the assignment by the specified date and time; any work submitted late will be subject to a penalty that will increase with time.

**Plagiarism**
AUPP maintains a very strict policy on plagiarism and cheating, explained in detail on the AUPP website. It is the obligation of all students to familiarize themselves with this policy, and apply it in all of their work. Penalties for plagiarism are severe, and multiple offenses can result in expulsion from the university.

- Students who engage in plagiarism, depending on the degree of severity and at the discretion of the instructor, may be subject to the following:
- A warning and referral for guidance on better understanding what constitutes academic dishonesty and how to avoid it;
- No points/credit for instances of academic dishonesty in a specific assignment/test;
• An F for the assignment;
• Withdrawal from the course; or
• An “F” for the course.

Course Structure
This course is divided into several parts. It begins with an introduction to the concept of information technology, its purposes, and the history of the development of information technologies. The next part focuses on the major issues, concepts and ideas surrounding digital information technology and its development. The third part of the course provides an overview of some of the many ways in which various digital information technologies can be used in research, analysis, writing, presentations, mapping, and more. Use of various technologies and applications is integrated into the entire course (so, for example, a written assignment might require students to do online research using specific search tools, and present their findings in the form of a paper written in Microsoft Word and including graphs made using Excel and maps with Google Maps.)

This course is designed to encourage student-centered learning and active engagement. While the required reading is often challenging and rigorous, we will be devoting much of class time to discussion and in-class activities to ensure that students have maximum opportunity to ask questions, work out practical exercises in groups, and discuss as a class the main ideas we cover.

It is critical that you do the assigned readings before each class and come prepared to discuss the assigned discussion questions.

Course website
The course website is at http://itec101.net/, will be the main source of information about all aspects of the course, class readings, assignments, and deadlines. It will also serve as the main forum for online discussions among members of the class outside of scheduled class times.
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Detailed Course Schedule

Please be aware that the exact course schedule is subject to change as the course progresses. For an up-to-date schedule, including updated required readings and assignment deadlines, please check the Course Calendar regularly.

Student presentations and class discussions will be an integral part of all class meetings.

Part One: Introduction to and History of Information Technologies

Week 1: Introduction to information technologies
1. An introduction to the course and review of the syllabus and the website.

2. Information technologies: a historic overview.
   Readings:
   Naughton, John. 2014. From Gutenberg to Zuckerberg: Disruptive Innovation in the Age of the Internet (Part of Chapter 1, pp 1 – 12.)
   Note: Periodically there will be pop quizzes on the readings at the beginning of class, so be sure to come prepared!

   General Education: Goal 1a, 2a, 2g, 4a & 4b apply to presenters in this and all classes in which students make presentations (It applies to all presentations but it is specified only here.) 8b.
   Course Objectives: #4

Week 2: The concepts behind IT, how to use it, and why this all matters.
1. IT and you: how is IT changing the world, and in particular the global job market. What, exactly, is the Internet, and how does it work?
   Reading:
   Ryan, Johnny. 2010. A History of Internet and the Digital Future. Chapter 1
   Recommended:

2. Some basic information technologies: Discussion of a selection of browsers - the main gateways to the Internet – and how they differ from one another (e.g. Explorer, Chrome, Firefox, Opera, Tor.) word processors, spreadsheets, and presentation application including those free and online (e.g. Open Office, Google docs, Google Spreadsheet, Prezi).
   Four students will give brief presentations on a selection of the applications listed.

   General Education: 6a, 8a, 8b
   Course Objectives: #1, #4
Week 3: Academics online: scholarly research, personal and information organization, and the internet

1. i) Beyond Google: searching and researching using general and specialized search engines (Google Scholar, Proquest, PubMed, Web of Science, DuckDuckGo.)
   ii) How do I know if it’s true? Learning how to make judgments about the reliability and accuracy of sources.

2. i) An overview of useful online data, information, and news sources (e.g. population databases and census tools, economic data sources, , reddit) How can IT help you be a more organized and informed student, employee, and citizen?
   ii) Bibliographic and organizational tools (Mendeley, Evernote, Refworks, Google Calendar.)
   iii) Surveys and data gathering (e.g. SurveyMonkey.)
   Four students will give brief presentations on a selection of the applications listed.

   General Education: 2a, 6a, 6b, 8a, 8b
   Course Objectives: #2, #6

Week 4: Networked Societies

1. What are digital networks, how do they work, and how are they useful (or not?)

2. Discussion of online networking tools, their potential and their limitations (e.g. Facebook, Path, LinkedIn, Twitter)
   Four students will give brief presentations on a selection of the applications listed, or other networking applications not listed.
   General Education: 2f, 8a, 8b
   Course Objectives: #4

Week 5: Marketing and E-commerce

1. Advertising and marketing online: the economic lifeblood of the internet? How advertising and marketing online works (in ways both obvious and surreptitious), and what this means for producers, distributors, and consumers of goods, information, and ideas.

2. E-commerce applications (Google Adwords, Google Analytics, Amazon, Ebay, Paypal, AliBaba, Etsy, Bitcoin.)

   General Education: 2c, 2d, 2e
   Course Objectives: #1
Week 6: Online Security and Privacy
1. i) The perils of the online world, and how to navigate it safely. Viruses, worms, Trojan horses, and spyware: what they are and how they work
   Readings:
   ii) Ioannou, Nick. 2014. *Internet Security Fundamentals: Practical Steps To Increase Your Online Security* (selected readings from the book.)
   Discussion of online security and security applications (including antivirus and antimalware applications, data and transmission encryption, using VPNs and Tor.)

   General Education: 5c, 8a, 8b
   Course Objectives: #3

Week 7: Leaking, Hacking, and Piracy: ethical and legal issues.
   Required video: *The Internet’s Own Boy: The Story of Aaron Swartz*
2. Discussion of types of ethical issues in IT usage (Pirate Bay, Bitcoin, The Silk Road.) Is it wrong to download or purchase pirate copies of books, music, and software?

   Course Objectives: #3, #4
   General Education: 5b, 5c, 8a, 8b

Week 8: Mobile technologies and their use in development
1. Smart (and dumb) mobile phones and their uses in business, particularly in the developing world.
   Reading:
   - UNESCO. 2014. *Reading in the Mobile Era* (downloadable pdf) (Selected section of the report.)

   Course Objectives: #1
   General Education: 8a, 8b

Week 9: Mapping and Navigational IT
1. i) Using maps in the digital age. An introduction to mapping technologies, Geographic Information Systems, and GPS (using applications including GPS Essentials, MyTracks, ArcGIS, ESRI, LIDAR, Social Explorer.) tracking)
   ii) Data tracking and its implications
2. Remote sensing: what it is and what it can be used for (e.g. Google Earth, LIDAR.)

   General Education: 8a, 8b
   Course Objectives: #1, #6
**Week 9: Visual Society- the changing visual, virtual landscape**

1. Videos, photo sharing, presentations (e.g. Flickr, Vimeo, YouTube, Instagram.)
   Reading to be announced
2. Making, using, and publishing videos (using iMovie as an example.)

   General Education: 4a, 4b, 4c, 8a, 8b
   Course Objectives: #1, #6

**Week 10: Organizational benefits of IT**

1. How can IT help you be more organized in your personal, academic, and professional life.
   Bibliographic and organizational tools (Mendeley, Evernote, Refworks, Google Calendar)
   Reading to be announced
2. Database use and management.
   Reading to be announced

   Course Objectives: #1, #2
   General Education: 1b, 2c.

**Week 12: Websites, Blogs, Vlogs and more**

1. How is IT changing how we market ourselves?
   How can you make a website and blog? Should you? (e.g. Weebly, Dreamweaver, YouTube, Wordpress.)
2. Establishing an online identity: advantages and pitfalls

   Course Objectives: #1, #3
   General Education: 8a, 8b.

**Week 13: Information technologies in the future**

1. The future of information technology (including the possible future uses of artificial intelligence, and the internet of things.)
2. Putting it all together: what have we learned, what have we not learned, and how will we put our knowledge to use.

   Course objective: #5
   General Education: 8b.

**Week 14: Student Presentations**
Collaborative Projects

Most of the work in this course will be collaborative; students will work in pairs or groups on topics of particular interest to them, and will report their findings to the rest of the class. So, for example, if some students have a particular interest in online advertising and e-commerce, they would research the subject and give a brief presentation to the rest of the class in Week 5.

Students will also work collaboratively with students in the course EDUC 5415 Teaching Online and Hybrid Courses at the University of Minnesota, Duluth (UMD). There is some overlap between ITEC 101 and EDUC 5415, particular in regard to collaborative online applications. Dr. Helen Mongan-Rallis, instructor of the EDUC course at UMD, will be at AUPP for three weeks in February and will participate in our classes during that time.