

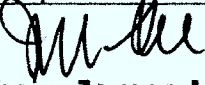
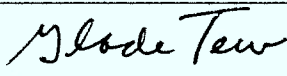
Section 1 - Approvals**Approvals**

Name of Proposal: IT490R

Submitted by: Timothy D. Stanley

Signature: 

Date: 5 May 2010

Procedure	Recommendation/Signature	Date
Faculty Vote: For <u>7</u> , Against <u>0</u> , Abstain <u>0</u> , Absent <u>0</u>		5/12/2010
1. Approved by Department [separate block for each dept]	Signature:  CIS Chair: James Lee	5/12/2010
2. Approved by College [separate block for each college]	Signature:  CBCG Dean: Glade Tew	5/12/2010
3. Reviewed by LAS (if new resources are requested)	Signature: Not Applicable LAS: Douglas Bates	
4. Approved by General Education (if any GE course is affected)	Signature: Not Applicable GE: Beth Haynes	
5. Approved by University Curriculum Committee	Signature: UCC: Douglas Bates	
6. Approved by Academic Council	Signature: AVP: Max Checketts	
7. Approved by the President's Council (for new programs)	Signature: Not Applicable Pres: Steven Wheelwright	

Section 2 – Overview (Support)

Summary:

Requests

- Create new course: IT 490R.
- Delete IT 482 Advanced Topics in Information Assurance & Security.
- Approve “Advanced Topics in Information Assurance & Security” as a title within IT 490R.
- Approve “Robotics” as a title within IT 490R.
- Approve “Computer Forensics” as a title within IT 490R.
- Approve “Cloud Computing” as a title within IT 490R.
- Approve “Haptics and Advanced Human-Computer Interaction” as a title within IT 490R.
- Approve “Ubiquitous Computing” as a title within IT 490R.

Impacts

Provide IT options for IT senior elective requirements, and provide classes to excite and recruit new students.

Justification

IT students currently have a six-hour 400-level elective requirement. Now that we have many students in this new major, we would like to provide more IT specific options to meet this requirement. Currently IT students fill this requirement by taking 400 level courses in Computer Science or Information Systems.

Section 4 - Course Proposal (core)

Upon approval, the information presented on this course proposal sheet will become binding on the department and the university. Any material changes require a new course proposal.

Effective Date: immediately upon approval

College: CBCG

Course Prefix: IT

Course Number: 490R

NEW COURSE.

Full Title: Advanced Topics in Information Technology

Short Title (for Transcript, 30-char max): Advanced Topics in Info Tech

There is just one alternate short title at the present moment in time, shown in the table below. Others will be proposed and approved later. The registrar's office should make these alternate titles available for selection by the individual scheduling the course for the department.

"Short Titles" for Transcript	"Full Title" for Syllabus	by
Adv Topics in Info Tech	Advanced Topics in Information Technology	
Adv Topics Info Assur & Sec	Advanced Topics in Information Assurance & Security	SW
Robotics	Robotics	TS
Computer Forensics	Computer Forensics	TS
Cloud Computing	Cloud Computing	SM
Haptics & Advanced HCI	Haptics and Advanced Human-Computer Interaction	SW
Ubiquitous Computing	Ubiquitous Computing	SW

SW = Stuart Wolthius

TS = Tim Stanley

SM = Scott Mikolyski

Catalog Entry (50-word recommended maximum):

490R. Advanced Topics in Information Technology (3) (var) Senior-level elective course. Subject varies according to instructor availability. (Prerequisite: Instructor Permission.)

Prerequisites: instructor permission

Credit Hours: 3

Immediately following this page, attach a sample syllabus if needed.

Following this page, attach PDF copies of the online catalog web pages that should change as a result of this proposal. Indicate the location of changes that should be made.

INFORMATION TECHNOLOGY (IT)

220. Linux Essentials (3) (F, W) Introduces fundamental Linux skills including login, file system, chmod, find, tar, gzip, shell, grep, uniq, nice, and tcp/ip networking. (Prerequisite: CIS 101.)

224. Computer Hardware and Systems Software (3) (F, W) Introduction to computer operating systems, graphical and command-line user interfaces, hardware and software installation, utility programs, software integration, and diagnostic techniques. (Prerequisite: CIS 101; Corequisite: IT 224L.)

224L. Computer Hardware and Systems Software Lab (0) (F, W) Required with IS 224, hands-on experience installing and configuring hardware and software, and diagnosing problems. (Corequisite: IT 224.)

240. Fundamentals of Web Design & Technology (3) (1st, F, W, Sp) Concepts of multimedia design and creation for the Internet using web programming tools to develop web pages.

280. Data Communications Systems and Networks (3) (F, W, Sp) Theory and foundation for network management including data communications hardware and software, network configuration and design, network protocols, and network security and control. (Prerequisite: CIS 101. Corequisite: IT 280L.)

280L. Data Communications Systems and Networks Lab (0) (F, W, Sp) Required with IT 280, hands-on experience. (Corequisite: IT 280.)

390R. Special Topics in Information Technology (1-3) (Variable).

399R. Internship in Information Technology (1-12) (Variable) Students may receive credit for applied experience in information technology. Prior approval must be obtained and a program coordinated by a faculty member and the on-site supervisor. (Prerequisite: instructor consent.)

420. Linux Systems Administration (3) (W, Sp) Develops skills needed to set up and manage Linux systems on existing networks, including installation, hardware, fstab, bootloader, passwords, dns, rpm, and kernel services. (Prerequisite: IT 220.)

426. Computer Network Services (3) (F, W) Installation, configuration, and management of network services such as file servers and directory services with an emphasis on Microsoft Windows (Prerequisites: IT 224, IT 280.)

440. Foundations of Human-Computer Interaction (3) (W) Human-Computer Interaction Foundations: including evaluation, design, implementation. CIS 405 and a psychology course in human information processing are recommended. (Prerequisites: CIS 305, IS 400, IT 240, Math 221.)

480. Computer Network Design (3) (F) Networking of computers and configuration of managed networking equipment including switches and routers, with special emphasis on Cisco equipment and protocols. (Prerequisite: IT 280. Corequisite: IT 480L.)

480L. Computer Network Design Lab (0) (F) Required with IT 480, hands-on experience. (Corequisite: IT 480.)

481. Information Assurance and Security (3) (F, Sp) Introduction to information security providing a foundation of computer security concepts, including general security, communication security, infrastructure security, basics of cryptography, and operational and organizational security. (Prerequisite: IT 280/L.)

482. Advanced Topics in Information Assurance & Security (3) (W) Advanced topics in information assurance: systems verification, information flow/protection, computer viruses/malware, intrusion detection models, multi-level security, forensics, network firewalls, cryptography, e-commerce support, and database security. (Prerequisite: IT 481.)

491-492-493. Seminar (1-1-1) (F, W, Sp, Su) Readings in the Information Technology Science literature, writing of review articles, research proposal writing and presentation, conducting research, poster presentation, writing and presentation of the senior thesis. (Prerequisites: instructor consent.)

495R. Independent Study in Information Technology (1-3) (Variable) Topic and credit to be arranged between the student and the instructor. (Prerequisite: instructor consent.)

496R. Student Research in Information Technology (1-3) (Variable) Supervised individual research for students who have been granted a student research and development assistantship. (Prerequisite: approval of all research associates.)

Delete 482 here
Add 490R here.

Affected Page:

[http://apps.byuh.edu/catalog/Current/Academic Departments & Programs/Course Listing/IT.php](http://apps.byuh.edu/catalog/Current/Academic%20Departments%20&%20Programs/Course%20Listing/IT.php)