

2021-2022 FALL – IT DEPARTMENT

LIST OF AREA ELECTIVE (AE) COURSES

#	C.Code	Course Name	Ins.	Course Description
1	ITEC295	Investigation of Computer Forensics	-	The course focuses on the theoretical aspects of computer forensics and investigations as a profession, the basics of computer investigations are taught with the requirements needed for the investigation offices and laboratory. Forensic computing demands understanding the data acquisition, the processing of the crime and incident scenes. Different operating systems will be analyzed such as Windows, DOS systems, Mac and Linux for boot processes and file systems. The course also includes the technics used in the investigations of electronic mails, cell phone and mobile devices. Further tools and applications used for information gathering will be examined in the lab
2	ITEC397	Macro Coding	-	The daily computational requirements of the organizations and persons are fulfilling mostly with desktop application and WEB based applications These solutions are satisfying the needs of multiuser systems and the personal projects having enough budget. But those methods are getting so expensive for the simple computational problems of the individuals. This is the main reason of most of the boring repeated tasks of the organizations and individuals are not yet automated and still are done manually. This gap of the IT sector can be closed with using the macro coding facility of the office software that already exists almost on every office-personal computer. This course is aiming to educate students with macro coding techniques and let them to develop solution for those kind different requirements of IT sector.
3	ITEC420	Framework Based Internet Applications	-	This course focuses on development of Internet applications. Designing web sites/pages and developing database Internet applications will be covered throughout the semester. In order to eliminate tedious coding and to develop all these applications, ASP.NET with C# as the programming language will be used. As relational database management server which will be introduced during the semester, is addressed as MS Sql Server. The ASP.NET Web Site Administration Tool will also be covered as part of web sites with authentication, access rights and web sites ready for e-commerce among the semester.

4	ITEC438	E-Commerce Applications		In this course, students will examine the history of the Internet and its influence on e-commerce. Students will also explore the fundamental concepts and their relations to e-commerce, such as electronic commerce foundations, law and the internet, web marketing goals, online product promotion, site usability, e-commerce consumer service methods, business-to-business frameworks. The course will also cover topics such as electronic commerce site creation packages, site development software implementation, developing an electronic commerce site using commerce server, online catalogs, using and configuring payment gateways, e-Services support, transaction security, web site management and options for e-commerce.
5	ITEC441	Information System Security		Introduction. General Security Concepts. Operating Systems and their Security. Viruses, worms and their countermeasures. Networking Basics. Internet Security Basics. Firewalls. Encryption. Generic Virus Writer. Ethics.
6	ITEC442	IoT and Cybersecurity		The aim of this course is to express why cybersecurity is a societal imperative; analyze the tradeoffs of balancing key security properties like confidentiality, integrity, and availability; contrast the roles of prevention, deterrence, and detection mechanisms; document the role of formal methods in creating high assurance software and systems; express the differences between vulnerabilities, threats, and risk; analyze a security policy and/or procedure to show where it considers, or fails to consider, human factors; contrast encryption, digital signatures, and hash functions; document standards that apply to an organization's information security posture; contrast the internet of things with the web of things, with industrial internet, with pervasive computing, and with smart systems; illustrate ways to interface an IoT component to sensors and actuators; demonstrate several security issues and challenges of collaborative data acquisition in IoT; express the design and implementation issues related to ad hoc networks and contrast the difference between proactive, reactive and hybrid routing; express intelligent information discovery, retrieval, and mining on IoT and express tools that are using in designing IoT.
7	ITEC447	WEB Projects		This course aims to encourage students to improve their team-working skills in web-based projects. The course focuses on designing, developing and presenting real life web projects. Students use one or more web development tools in order to design and develop web sites. They also learn how to deal with HTML, CSS, JavaScript, PHP, MySQL, web templates, web forms, JQuery and Flash-based contents. The importance of the web programming languages is discussed on a real life project.
8	ITEC456	Applied Animation Techniques	H. OYLUM	This course aims to create mouse tools, the use of Pop-Up Windows in graphics environment, creating pop-up windows, the use of interactive drawing tools and a CAD program. Two and three-dimensional graphics, Solid Modeling, the use of ready graphics tools (Adobe Flash CS applications) to develop animations, current and future trends in animations are also going to be covered within the course.