

Course #:	INFO-I 101							
Course Title:	Introduction to Informatics							
Course Type:	Required core							
Prerequisites:	Computer literacy.							
Credits:	4							
Text Book:								
References:	•							
Current Catalog Description:	Emphasis on topics in human-computer interaction and human factors, collaborative technologies, group problem solving, ethics, privacy, and ownership of information and information sources, information representation and the information life cycle, the transformation of data to information, and futuristic thinking.							
Course Goals	<p>The student who completes this course will develop an understanding of:</p> <ul style="list-style-type: none"> • information technology (IT) and its art, science, and human dimensions • the role of IT and its use for problem solving and communication in different contexts. • the personal, organizational, and social issues brought about by ubiquitous use of Information Technology. 							
Major Topics Covered in the Course	<ul style="list-style-type: none"> • Introducing the field of information technology and its application to other disciplines (Informatics) • Social and Ethical aspects of IT • Privacy and Security • Data, information, knowledge • Number systems, data representation (Binary, Octal, Hexadecimal, bit, byte, etc.), encoding and information theory. • Introduction to Hardware (CPU, memory, storage, etc.) • Introduction to logic and its application in IT • Introduction to problem solving, algorithms, flow charts, pseudocoding • Sets, its operation and its relationship to relational databases • Introduction to programming • Introduction to networking, distributed computing, world wide web, e-commerce, e-education. • Special Topics: Artificial intelligence, security, computer graphics, bioinformatics, 							
Laboratory projects (specify number of weeks on each)	<ul style="list-style-type: none"> • The course includes a separate lab sessions. One session per week. Lab assignments will be assigned. 							
Estimate Curriculum Category Content (Semester hours)	<table border="1"> <thead> <tr> <th>Area</th> <th>Core</th> <th>Advanced</th> </tr> </thead> <tbody> <tr> <td>Algorithms</td> <td>0</td> <td></td> </tr> </tbody> </table>		Area	Core	Advanced	Algorithms	0	
Area	Core	Advanced						
Algorithms	0							

	Software Design	2	
	Comp. Arch.	0	
	Data Structures	0	
	Prog. Languages	3	
	Additional hours may be dedicated to curriculum categories not listed above. For example explanation of concepts and theories. Discussion of social and ethical issues, discussion of inter personal relationships and working within groups.		
Oral and Written Communications	Not a course objective.		
Social and Ethical Issues	The course contains approximately 3 hours of lecture and/or discussion on social, ethical, privacy, and security issues as they related to IT and IT professionals.		
Theoretical Content	Basic introduction to number systems, information theory, counting, and algorithms.		
Problem Analysis			
Solution Design			
Prepared By	Hakimzadeh		