	HASAN KALYONCU UNIVERSITY **Faculty of Engineering** **Course Description Form**

COURSE: Software Requirements Analysis				
CODE: SENG225	**SEMESTER:** FALL			
LANGUAGE: ENGLISH	**TYPE:** TECHNICAL ELECTIVE			
PRE-REQUISITES: NONE **CO-REQUISITES:**	**THEORY**	**PRACTICAL**	**CREDIT**	**ECTS**
WEEKLY HOURS:	3	0	3	4

CONTENT OF THE COURSE:
Students will learn to capturing and eliciting requirements and models for representing them. Also to learn how to handle difficult situations in gathering data to build systems, along with requirements in the context of system engineering. Students will also learn Specifying and measuring external qualities: performance, reliability, availability, safety, security, etc. along with specifying and analyzing requirements for various types of systems: embedded systems, consumer systems, web-based systems, business systems, systems for scientists and other engineers

OBJECTIVE OF THE COURSE:
The objective of this course is to teach the use and results of the methods of analyzing social networks on the Internet.

WEEKLY SCHEDULE	
Week	**Topics**
1	Intro. to software life cycle
2	review of the software process stages and activities
3	Intro to the requirements engineering
4	The functional and non-functional requirements
5	Requirement elicitation
6	Protection of personal data. Information security
7	Midterm
8	Social network analysis.
9	Network models and community analysis. Gephi
10	Network visualization and analysis. Gephi
11	Social network databases
12	NodeXL: setup, inspection, network analysis
13	Benefits of network analysis; social networks in education Socialization and behavior. IT ethics
14	Review; Q & A.

TEXTBOOK:
Handouts.

REFERENCE BOOKS:

EVALUATION SYSTEM:

IN-TERM STUDIES	QUANTITY	PERCENTAGE (%)
Midterm Exam	1	30%
Homework	10	10%
Laboratory works	-	-
Quiz	4	20%
Final Exam	1	40%
TOTAL	**16**	**100%**
CONTRIBUTION OF INTERIM STUDIES TO OVERALL GRADE	6	60
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE	1	40
TOTAL	**7**	**100**

COURSE CATEGORY:	PERCENTAGE (%)
Mathematics and Basic Sciences	30%
Engineering	40%
Engineering Design	20%
Social Sciences	10%

TABLE OF ECTS / WORKLOAD:

Activities	QUANTITY	Duration (Hour)	Total Workload
Course Duration	13	3	39
Hours for off-the-classroom study (Pre-study, practice)	13	4	52
Laboratory works	-	-	-
Mid-term	1	2	2
Final examination	1	2	2
Homework	10	2	20
Quiz	4	1	4
Total Workload			**119**
Total Workload / 30			**3.97**
ECTS Credit of the Course			**4**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	1	0	0	1	0	0	0	1	0	0	2
LO2	2	0	0	2	0	0	0	2	0	0	2
LO3	2	0	0	1	0	0	0	2	0	0	1
LO4	3	0	0	2	0	0	0	3	0	0	2
LO5	3	0	0	2	0	0	0	3	0	0	1
	PO: Program Outcomes | LO: Learning Outcomes Values: 0: None | 1: Low | 2: Medium | 3: High										

INSTRUCTOR(S):	Prof. Dr. Atilla Elçi
FORM PREPARATION DATE:	25.03.2021

LEARNING OUTCOMES OF THE COURSE:	PROGRAM OUTCOMES
LEARNING OUTCOMES OF THE COURSE: **LO1: Recognize and use community networks** **LO2: Designs algorithms for processes to produce results using community networks.** **LO3: Analyze the algorithms for creating and using community networks.** **LO4: Know and evaluate the legal and application areas of community networks** **LO5: Know and evaluate the legal aspects of community networks**	**PO1:** Adequate knowledge in mathematics, science, and engineering subjects about the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems. **PO2:** Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose. **PO3:** Ability to design a complex system, process, device, or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose. **PO4:** Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively. **PO5:** Ability to design and conduct experiments, gather data, analyze, and interpret results for investigating complex engineering problems or discipline-specific research questions. **PO6:** Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually. **PO7:** Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions. **PO8:** Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself. **PO9:** Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge of standards used in engineering practice. **PO10:** Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development. **PO11:** Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.