MODULE HANDBOOK

NEU, Department of Computer Information Systems

Course Unit Title	English I
Course Unit Code	ENG 101
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	2
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	Firuzan Remzi
Name of Lecturer (s)	Firuzan Remzi
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic background on English

Objectives of the Course:

Students develop essential business communication skills such as making presentations, taking part in meetings, negotiating, telephoning and using English in social situation.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Conduct research in the library	2
2	Demonstrate improvement in reading skills	2, 3
3	Show an awareness of writing process	2
4	Carry out basic primary research such as case studies.	2 5

Assessment Methods: 1. Written Exam 2. Assignment 3. Project/Report 4. Presentation 5. Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Jobs and Studies	
2	2	Work and Leisure Activities	
3	3	Problems: Problems Where You Live	

4	Unit A	Revision	
5	4	A Place You Know Well	
6	5-6	Food And Entertaining: Tipping/ Sales: A Job as a Sales Rep	
7			**Mid-term**
8	Unit B	Revision	
9	7	People: Starting A Business	
10	8-9	Markets -Companies	
11	10	The Web: Using the Internet	
12	11	Cultures: Cultural Mistakes	
13	12	Jobs: Skills you need for a Job	
14		Revision	
15-16			**Final**

Recommended Sources

Textbook: Market Leader, Elementary Business English David Cotton-David Falvey-Simon Kent

Supplementary Material (s): ENGLISH 101: FIRST-YEAR COMPOSITION, Taylor et al., Kendall Hunt Publishing; 3 edition, 2010.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	35%	
Quiz (Written)	15%	
Final Exam (Written)	45%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	8	1	8
Assignments	14	1	14
Project/Presentation/Report Writing	5	1	5
E-learning Activities	3	1	3
Preparation for Quiz	2	7	14
Quizzes	2	2	4
Preparation Midterm	1	15	15
Midterm Examination	1	2	2
Preparation Final	1	22	22
Final Examination	1	2	2
Total Workload			131
Total Workload/30 (h)			4.3
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Mathematics I
Course Unit Code	MAT 171
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	5 ECTS
Theoretical (hour/week)	4
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	H.Sarıkaya
Name of Lecturer (s)	H.Sarıkaya
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic background in Mathematics

Objectives of the Course:

- This course provides an informal, non-intimidating presentation of the mathematical principles, and techniques,
- To understand applications most useful for students in business, economics, and the life and social sciences.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understand how limits works	1
2	Understand how integral works	1
3	Understand concept of differentiations	1

Assessment Methods: 1. Written Exam 2. Assignment 3. Project/Report 4. Presentation 5. Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	4
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	2
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Arithmetic Operations, Fractions, Solving Equations	
2	2	The Straight Line, Mathematical Modeling, Applications, Elasticity of	
3	2	The Straight Line, Mathematical Modeling, Applications, Elasticity of	
4	2	Solving Linear Equations	
5	3	Equilibrium and Break Even	
6	3	Consumer and Producer Surplus	
7			**Mid-term**
8	4	Quadratic, Cubic and Other Polynomial Functions	
9	4	Exponential and Logarithmic Functions	

10	4	Hyperbolic Functions	
11	5	Simple Interest, Compound Interest and Annual Percentage Rate	
12	5	Depreciation	
13	5	Annuities, Dept. Repayments, Sinking Funds.	
14		Revision	
15			**Final**
16			

Recommended Sources

Textbook: Essential Mathematics For Economics and Business, Teresa Bradley and Paul Patton, Second Edition, Wiley, 2002

Supplementary Material (s): Engineering Mathematics: 7th Edition, K. A. Stroud ,Dexter J. Booth,2013, ISBN-13: 978-0831134709

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	30%	
Quiz (Written)	10%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	**Number**	**Duration (hour**	**Total Workload(hour)**
Course duration in class	14	3	42
Tutorials	10	3	30
Assignments	5	4	20
Project/Presentation/Report Writing	-	-	0
E-learning Activities	3	1	3
Preparation for Quizzes	2	7	14
Quizzes	2	2	4
Preparation for Midterm	1	15	15
Midterm Examination	1	2	2
Preparation for Final	1	22	22
Final Examination	1	2	2
Total Workload			154
Total Workload/30 (h)			5.1
ECTS Credit of the Course			5

NEU, Department of Computer Information Systems

Course Unit Title	Introduction To Business Administration
Course Unit Code	MAN 101
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	Rana Serdaroğlu
Name of Lecturer (s)	Rana Serdaroğlu
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic background on Management

Objectives of the Course:

The main objective of the course will be to explore the dynamic environment of the business organizations. In addition, we will have some other objectives including; explaining basic business and management concepts, to help students understand business systems and management functions, to discuss contemporary management practices and solution for today's complex and competitive business world. To encourage students to look at issues from the perspective of business owners

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn independently and collaboratively, practice higher levels of thinking, and communicate strategically for learning.	1
2	Research and examine business and its interdependent relationship with the environment using appropriate theoretical frameworks	2
3	Correlate relationships between Marketing, Operations and Human Resource Management functions in the context of the broader business strategy and objectives. Examine the implications of these relationships for strategic choices about technology and culture in a rapidly changing business environment	3

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	4
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	4
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	Chapter 1	Introduction/ In Pursuit of Prosperity: The Fundamentals of Business and	

2	Chapter 3	Wild World: Competing in the Global Economy	
3	Chapter 5	Building the Foundation: Forms of Business Ownership	
4	-	Discussion (Small group work, debate)	
5	Chapter 7	From Planning to Inspiration: The Functions of Management	
6	Chapter 8	We're All in This Together: Organization and Teamwork	
7			**Mid-term**
8	Chapter 9	Creating Value: Producing Quality Goods and Services	
9	Chapter 10	Lighting the Fire: Employee Motivation, Workforce Trends, and Labor	
10	Chapter 11	Taking Care of Employees: Managing Human Resources	
11	Chapter 12	Connecting with Customers: The Art and Science of Marketing	
12	Chapter 13	Defining the Exchange: Product and Pricing Strategies	
13	Chapter 17	Keeping the Engine Running: Financial Management and Banking	
14		Wrap-up and conclusions	
15			**Final**
16			

Recommended Sources

Textbook: Excellence in Business, Michael H. Mescon, Courtland L. Bovée, John V. Thill, Prentice-Hall, Inc. ISBN: 0131870475

Supplementary Material (s): Modern Business Administration, Robert C. Appleby
Publisher: Financial Times Management; 6 Sub edition (June 10, 1994)

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	40%	
Quiz (Written)	-	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	10	2	20
Assignments	14	2	28
Project/Presentation/Report Writing	1	12	12
E-learning Activities	3	2	6
Preparation for Quizzes	2	9	18
Quizzes	2	1	2
Preparation for Midterm	1	22	22
Midterm Examination	1	2	2
Preparation for Final	1	25	25
Final Examination	1	3	3
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Principles of Economics 1
Course Unit Code	ECON 101
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	AyŞem Çelebi
Name of Lecturer (s)	AyŞem Çelebi
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic background on Economics

Objectives of the Course:

This course familiarizes students with basic economic terms and principles. Students get acquainted with economic terminology and basic economic modelling, which they will use as a base for their academic career. At this stage, this course has a crucial role in adopting students, who chose economics as their major, to the field, and give an idea of the workings of economics to those who do not plan on undertaking further economic study.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn basic economic terms	1
2	Learn economic modelling	1
3	Learn basic economic analysis	1
4	Learn to analyse economic problems	3
5		

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	3
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1.	1	Introduction to the Principles of Economics	
2.	2	Demand, Supply	

3.	2	Market Equilibrium, Elasticity and Applications	
4.	3	Government Policy	
5.	3	Taxation	
6.	4	Public Goods and Externalities	
7.			**Mid-term**
8.	5	Costs of Production	
9.	6	Market Structures: Perfect Competition, Monopoly	
10.	7	Economics of Labour Markets	
11.	7	Economics of Labour Markets	
12.	8	Income Inequality and Poverty	
13.	9	Theory of Consumer Choice	
14.		Revision	
15-16			**Final**

Recommended Sources

Textbook: Michael Parkins. 7th Edition

Supplementary Material (s): Principles of Economics. Learning; 6th edition, N. Gregory Mankiw, Cengage 2011.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	40%	
Quiz (Written)	15%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	-	-	0
E-learning Activities	5	2	10
Preparation for Quizzes	2	9	18
Quizzes	2	2	4
Preparation for Midterm	1	20	20
Midterm Examination	1	3	3
Preparation for Final	1	28	28
Final Examination	1	3	3
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Introduction To Computer Information Systems
Course Unit Code	CIS 131
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	Umut Zeki
Name of Lecturer (s)	Umut Zeki
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic Background on Algorithms

Objectives of the Course:

This course provides an overview of information systems. Topics include hardware and software fundamentals, use of software packages, effective use of networks, Internet, and other communication tools, the design of management information systems, as well as the ethical use of computers in business and society.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the IT history	1
2	Learn parts of a computer	1
3	Learn various number systems	1
4	Learn the basic principles of IT	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	2

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1.	1	Definition of information and computer, and history	
2.	1	Definition of information and computer, and history	
3.	2	Computer number systems and data representation	
4.	3	Hardware of a computer system	

5.	3	Hardware of a computer system	
6.	3	Hardware of a computer system	
7.			Midterm
8.	4	Software of a computer systems	
9.	4	Software of a computer systems	
10.	5	Introduction to information systems	
11.	5	Introduction to information systems	
12.	5	Introduction to information systems	
13.		Revision	
14.		Quiz	
15-16			Final

Recommended Sources

Textbook: Computers, L Long &N. Long, ISBN 0-13-083190-5, Publisher: Prentice Hall

Supplementary Material (s): Introduction to Computer Information Systems 1st, STEINBERG GEOFFREY and SANGHERA KAMALJEET, 2008 ISBN-13: 978-0757551918

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	30%	
Quiz (Written)	10%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	2	15	30
E-learning Activities	5	1	5
Preparation for Quizzes	2	7	14
Quizzes	2	1	2
Preparation for Midterm	1	20	20
Midterm Examination	1	3	3
Preparation for Final	1	25	25
Final Examination	1	3	3
Total Workload			210
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Atatürk İlkeleri ve İnkılap Tarihı I
Course Unit Code	ATA 101
Type of Course Unit	Compulsory
Bachelor's degree	Bachelor's degree
National Credits	0
Number of ECTS Credits Allocated	2 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	
Name of Lecturer (s)	
Name of Assistant (s)	
Mode of Delivery	e-Learning
Language of Instruction	Turkish
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic background on History

Objectives of the Course:

- Osmanlı İmparatorluğu tarihini anlayabilme
- Devleti kurtarmaya yönelik Modernle$me/Batılıla$ma hareketlerini kavrayabilme
- Modern Türkiye'nin olu$umuna zemin hazırlayan unsurlar olarak Osmanlı reformunu benimseyebilme
- İç ve DıŞ etkenleriyle birlikte Osmanlı Devleti'nin Yıkılı$ Sürecini anlayabilme
- Mondros Ate$kes Antla$ması ve ilk i$galler kar$ısında Osmanlı Hükümetleri ile Mustafa Kemal Hareketi'nin tutumlarını anlayabilme

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Osmanlı modernle$me sürecinin Atatürk Devrimine etkileri ile ondan ayrılan yanlarını kavrayarak mukayese edebilme yeteneğini geli$tirir.	1
2	Kopuksuz Tarih anlayı$ı çerçevesinde Osmanlı Devleti ile Türkiye Cumhuriyeti devleti arasındaki kopu$ ve süreklilikleri tesbit edip değerlendirir.	2
3	Günümüz Türkiyesi'nin Siyasal ve toplumsal sorunlarını tarihsel bir perspektif ve ele$tirel bakı$ açısıyla anlama fırsatı yakalar.	1
4	Ulusal Kimliği peki$ir ve bunun dünya Ulusları arasındaki yerini tesbit eder.	4
5		

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	1
2	To be able to achieve teamwork.	1
3	Information literacy skills in lifelong learning.	1
4	Understand and apply IT skills.	1
5	Analyze, evaluate and manage IT skills.	1
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1		Giriş: Dersin ve Kaynakların Tanıtılması	
2		Kuruluşundan 18. Yüzyıl Sonuna Kadar Osmanlı İmparatorluğu	
3		Osmanlı Devleti'nin Çöküşüne Zemin Hazırlayan İç ve Dış Etkenler	
4		Klasik Osmanlı Devlet ve Toplum Yapısı	
5		Devleti Kurtarmaya Yönelik Reform Çabaları	
6		Devleti Kurtarmaya Yönelik Reform Çabaları(devam)	
7			Vize Sınavı
8		I. Dünya Savaşı ve Osmanlı İmparatorluğu, Mondros ve Savaş Sonrası Durum	
9		İşgaller ve İlk Tepkiler	
10		Cemiyetler, İsyanlar ve farklı arayışlar	
11		Mustafa Kemal ve Anadolu Direniş Hareketi'nin Teşkilatlanma süreci	
12		İstanbul Hükümetlerinin Tutumu ve Sevr Anlaşması	
13		Son Osmanlı Meclis-i Mebusanı'ndan TBMM'ne	
14		Quiz	Quiz
15			Final

Recommended Sources

Textbook: Ali Efdal ÖZKUL-Hasan SAMANİ, İmparatorluktan Cumhuriyete Modern Türkiye'nin Oluşumu. Atatürk İlkeleri ve İnkılap Tarihi, Ankara, 2009.

Assessment

Attendance & Assignment	-	
Midterm Exam (Written)	40%	
Quiz (Written)	-	
Final Exam (Written)	60%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	2	1	2
Assignments	2	1	2
Project/Presentation/Report Writing	-	-	0
E-learning Activities	14	2	28
Quizzes	-	-	0
Midterm Examination	1	1	1
Final Examination	1	1	1
Total Workload			76
Total Workload/30 (h)			2.5
ECTS Credit of the Course			2

NEU, Department of Computer Information Systems

Course Unit Title	English II
Course Unit Code	ENG 102
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	2
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	2
Course Coordinator	İmren Gürbaşar
Name of Lecturer (s)	İmren Gürbaşar
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	ENG 101
Recommended Optional Programme Components	Basic background in English

Objectives of the Course:
The world is becoming global, therefore countries are doing business with each other and multinational firms are becoming more and more popular. As the trade language is English, Fluent English speaking managers are needed more and more. Therefore students who are getting educated in business subjects should have good business English communicating skills.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learning outcomes in this course include, understanding and learning vocabulary related with business topics and being able to use these vocabulary in other lessons and in future in their business lives.	1, 2
2	When students develop the skills mentioned above these could be applied to further and improve their education and also help them to be successful in their business and personal life.	3, 4

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1		Introduction	

2	1	Careers	
3	1	Careers	
4	2	Selling Online	
5	3	Companies	
6		References, Revision	
7			Mid-term
8	7	Marketing	
9	-	Discussion (Cooperative learning, scenarios, small group work)	
10	8	Planning	
11	8	Planning	
12	9	Managing People	
13	9	Managing People	
14		Revision	
15			Final
16			

Recommended Sources

Textbook: Market Leader, Business English, Pre-Intermediate, Course Book, David Cotton, David Falvey, Simon Kent, ISBN 0 582 507200, Publisher: Pearson Education Limited.

Supplementary Material (s): English File: Pre-Intermediate: Student's Book with Itutor,2012, NA

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	40%	
Quiz (Written)	10%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	43
Tutorials	10	2	20
Assignments	14	1	14
Project/Presentation/Report Writing	2	2	4
E-learning Activities	3	1	3
Preparation for Quizzes	2	8	16
Quizzes	2	1	2
Preparation for Midterm	1	10	10
Midterm Examination	1	2	2
Preparation for Final	1	18	18
Final Examination	1	2	2
Total Workload			134

Total Workload/30 (h)	4.4
ECTS Credit of the Course	4

NEU, Department of Computer Information Systems

Course Unit Title	Mathematics II
Course Unit Code	MAT 172
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	5 ECTS
Theoretical (hour/week)	4
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	H.Sarıkaya
Name of Lecturer (s)	H.Sarıkaya
Name of Assistant (s)	-
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	MAT 171
Recommended Optional Programme Components	Basic background on mathematics

Objectives of the Course:

On successful completion of this course, all students will have developed knowledge and understanding of:

- Matrices and matrix operations
- Limits, and derivatives
- Integrals
- Bivariate functions

On successful completion of this course, all students will have developed their skills in:

- Matrix operations and Cramer's rule and Inverse matrix methods in solving systems
- Limit evaluations, and continuity check
- Finding derivatives by rules
- Locating and identifying critical points and their natures
- Applying derivatives to business problems
- Finding areas under a curve and/or between two curves applied to business problems
- Solving business problems (optimization) in two variables

On successful completion of this course, all students will have developed their appreciation of and respect for values and attitudes regarding the issues of:

- Willingness to work independently to solve problems
- Willingness to reach extra information about the topics
- (library and/or internet)
- Plagiarism and cheating

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn how to carry out matrix operations	1
2	Learn how to do complex limits and integrals	1
3	Learn how to find critical points in curves	1
4	Learn how to solve business problems using mathematics	1
5	Learn how to use computer aided tools	5

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	3

4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1
CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)		

Course Contents

Week	Chapter		Exams
1	6	Matrices Matrix Addition and Scalar Multiplication Matrix Multiplication	
2		Inverses, Determinants, Cramer's Rule	
3		Inverses, Determinants, Cramer's Rule	
4		Limits, Continuity	
5	12	The Derivative, Rules for Differentiation	
6	13	Derivatives of Logarithmic Functions, Derivatives of Exponential Functions, Higher – Order Derivatives / Quiz	
7			Midterm
8	14	Relative Extrema, Absolute Extrema on a Closed Interval, Concavity, The Second Derivative Test	
9	15	Elasticity of Demand, Functions of several variables and partial derivatives, Applications of Partial derivatives	
10	19	Higher – Order Partial Derivatives, Maxima and Minima for Functions of Two Variables	
11		Lagrange Multipliers	
12	16	The Indefinite Integral, Integration with Initial Conditions, The Definite	
13		The Fundamental Theorem of Integral Calculus,	
14		Quiz	
15			Final Exam
16			

Recommended Sources

Textbook: Introductory Mathematical Analysis, by Haeussler and Paul, 10th (or newer) edition, Prentice Hall.

Supplementary Material (s): Engineering Mathematics: 7th Edition, K. A. Stroud ,Dexter J. Booth, 2013, ISBN-13: 978-0831134709.

Assessment

Attendance & Assignment	-	
Midterm Exam (Written)	35%	
Quiz (Written)	5%	
Final Exam (Written)	60%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20

Assignments	14	2	28
Project/Presentation/Report Writing	-	-	0
E-learning Activities	5	1	5
Preparation for Quizzes	2	9	18
Quizzes	2	2	2
Preparation for Midterm	1	18	18
Midterm Examination	1	2	2
Preparation for Final	1	20	20
Final Examination	1	2	2
Total Workload			157
Total Workload/30 (h)			5.2
ECTS Credit of the Course			5

NEU, Department of Computer Information Systems

Course Unit Title	Principle of Economics II
Course Unit Code	ECON 102
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	Asst Prof Dr Ergin Akalpler
Name of Lecturer (s)	Asst Prof Dr Ergin Akalpler
Name of Assistant (s)	
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	Econ 101
Recommended Optional Programme Components	Basic background on Economics

Objectives of the Course:

The objective of this course is to teach the principle of income, living, production and growth, security and marketing, unemployment, the monetary system, an introduction to a macro economic theory and the open economy.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understanding Income, Living, production and growth	1
2	Learning Unemployment, The Monetary System,	2
3	Learning Money Growth and Inflation	2
4	Understanding A Macro Economic Theory and the Open Economy	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	23	Measuring a Nation's Income	
2	24	Measuring the Cost of Living	
3	25	Production and Growth	
4	26	Saving, Investment and the Financial System	
5	27	The Basic Tools of Finance	

6	28	Unemployment	
7			Midterm
8	29	The Monetary System	
9	30	Money Growth and Inflation	
10	31	Open Economy Macroeconomics: Basic Concepts	
11	32	A Macro Economic Theory and the Open Economy	
12	33	Aggregate Demand and Aggregate Supply	
13	34	The Influence of Monetary and Fiscal Policy on Aggregate Demand	
14	35	The Short Run Trade off Between Inflation and Unemployment	
15-16			Final

Recommended Sources

Textbook: N. Gregory Mankwin: Principle of Economics Harward University, South Western, Cengage Learning USA, 2009

Supplementary Material (s): Principles of Economics, N. Gregory Mankiw, Cengage Learning; 6 edition, 2011

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	40%	
Quiz (Written)	10%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	**Number**	**Duration (hour)**	**Total Workload(hour)**
Course duration in class (including the Exam week)	14	3	42
Tutorials	10	2	20
Assignments	14	2	28
Project/Presentation/Report Writing	1	18	18
E-learning Activities	3	1	3
Preparation for Quizzes	2	9	18
Quizzes	2	2	4
Preparation for Midterm	1	18	18
Midterm Examination	1	2	2
Preparation for Final	1	25	25
Final Examination	1	2	2
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Principles of Management
Course Unit Code	MAN 102
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	2
Course Coordinator	Assist. Prof. Dr. İerife Zihni Eyüpoğlu
Name of Lecturer (s)	Assist. Prof. Dr. İerife Zihni Eyüpoğlu
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	MAN 101
Recommended Optional Programme Components	Basic background on Management

Objectives of the Course:
The main objective of this course is to teach students about the science of management which will serve as the base for the learning of the art of management through practice.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the basic terminology of management	1
2	Learn the basic principles of management	1
3	Learn management techniques using computer software packages	3

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	2
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	2
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1
	CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very	

Course Contents

Week	**Chapter**		**Exams**
1	1	The Environment and Foundations of Modern Management	
2	3	Decision Making	
3	4	The Basic Planning Process	
4	6	Fundamentals of Organizing	
5	7	Designing Organizational Structures	
6	-	Discussion (Cooperative learning, case study, scenarios)	
7			Mid-Term

8	9	Staffing and Human Resource Management	
9	10	Being a Leader	
10	10	Being a Leader	
11	11	Influencing Individual Behaviour and Motivation	
12	11	Influencing Individual Behaviour and Motivation	
13	12	Improving Communication Skills	
14	14	Controlling and Building Commitment	
15			Final
16			

Recommended Sources

Textbook: Management, Principles and Practices for Tomorrow's Leaders, 3rd Edition, Gary Dessler, Pearson-Prentice Hall, 2004.

Supplementary Material (s): Modern Business Administration, Robert C. Appleby, Financal Times Management; 6 Sub edition, 1994.

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	30%	
Quiz (Written)	10%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activiti es	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	14	2	28
Project/Presentation/Report Writing	1	13	13
E-learning Activities	5	2	10
Preparation for Quizzes	2	8	16
Quizzes	2	1	2
Preparation for Midterm	1	21	21
Midterm Examination	1	2	2
Preparation for Final	1	25	25
Final Examination	1	2	2
Total Workload			181
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Introduction to programming languages and algorithms
Course Unit Code	CIS 132
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	1
Semester when the course unit is delivered	2
Course Coordinator	Sahar Shokouhi Tabrizi
Name of Lecturer (s)	Sahar Shokouhi Tabrizi
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 131
Recommended Optional Programme Components	Basic background on Computer

Objectives of the Course:

This course introduces students the logic of programming. The course aims to give an introduction to problem solving techniques using structured programming approach. The course will provide the analytical foundations for proceeding courses that requires critical thinking in programming. Students earn required skills about the thought of programming using flowcharts and pseudo-code.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	After completion of this course students will be able to design the logic to solve any practical problem, independently on using a specific programming language, as well as to master basic logic design skills by using flowcharts	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	2
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1.	1	Introduction to Algorithm	
2.	2	Introduction to programming tools	
3.	3	Introduction to programming and VISIO	
4.	4	Output and Input Statements, Practice in Lab	
5.	5	Condition "IF Statement", Practice in Lab	

6.	6	Condition “IF- ELSE Statement”, Practice in Lab	
7.			Mid-term
8.	7	Condition “CASE Statement”, Practice in Lab	
9.	8	Lopping “WHILE Statement” , Revision	
10.	9	Lopping “REPEAT Statement”, Practice in Lab	
11.	10	Lopping “FOR Statement”, Practice in Lab	
12.	11	Function “Built- In Functions”, Practice in Lab	
13.	12	Function “User Defined Functions”	
14.		Review	
15.			Final Examination

Recommended Sources

Textbook: Cavus, N. (2010). Computer programming an algorithmic approach. Lambert Academic Publishing.

Supplementary Material (s): Introduction to Algorithms, 3rd Edition, Thomas H. Cormen , Charles E. Leiserson , Ronald L. Rivest, 2009,ISBN-13: 978-0262033848,

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	35%	
Quiz (Written)	20%	
Final Exam (Written)	35%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	-	-	-
E-learning Activities	7	2	14
Preparation for Quizzes	2	14	28
Quizzes	2	1	2
Preparation for Midterm	1	27	27
Midterm Examination	2	1	2
Preparation for Final	1	30	30
Final Examination	1	2	2
Total Workload			213
Total Workload/30 (h)			7.1
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Atatürk İlkeleri ve İnkılap Tarihı II
Course Unit Code	ATA 102
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	2 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	-
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	2
Name of Lecturer (s)	
Name of Assistant (s)	
Mode of Delivery	E-learning activities
Language of Instruction	Turkish
Prerequisites and co-requisites	
Recommended Optional Programme Components	Basic background on History

Objectives of the Course:

ATA 101 Dersi'nin devamı olup; Ulusal Kurtuluş Savaşı, Lozan Anlaşması ve Yeni Türk Ulus Devleti'nin Kuruluşu, Yeni Türkiye'nin siyasal, toplumsal, kültürel dönüşüm ve modernleşmesini hedef alan Atatürk Devrimleri, Atatürkçülük ve Atatürk'ün 6 temel ilkesi, Atatürk Dönemi Türk Dış Politikası.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Modern Türkiye'nin siyasi, sosyo-ekonomik ve kültürel temellerinin anlaşılması	1
2	Türk Modernleşmesi'nin Uluslararası Sistem içindeki yerinin tesbiti	1
3	Günümüz Türkiyesi'nin siyasal, ekonomik ve toplumsal sorunlarının tarihsel arka planınının AnlaŞılması.	4

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	1
2	To be able to achieve teamwork.	1
3	Information literacy skills in lifelong learning.	1
4	Understand and apply IT skills.	1
5	Analyze, evaluate and manage IT skills.	1
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1		Ulusal Kurtuluş Savaşı: Doğu Cephesi ve Ermenilerle Savaş, Gümrü	
2		Batı Cephesi ve Yunan Ordusuyla Yapılan Savaşlar ve sonuçları	
3		Mudanya Ateşkes Anlaşması ile Lozan Barış Anlaşması	
4		Siyasal Alanda Yapılan Devrimler	
5		Çok Partili Seçim Denemeleri ve iki savaş arası dönemde Türk	
6		Sosyal ve Ekonomik Alanda Yapılan Devrimler	

7			Vize Haftası
8		Hukuk ve Eğitim Alanında Yapılan Devrimler	
9		Atatürkçülük/Kemalizm, Atatürk İlkeleri: Milliyetçilik, Laiklik	
10		Cumhuriyetçilik, Halkçılık	
11		Devletçilik, Devrimcilik ve Genel Değerlendirme	
12		Türk DıŞ Politikası: 1923-1930 Dönemi	
13		Türk DıŞ Politikası: 1930-1939 Dönemi	
14			Quiz
15			Final Sınavı

Recommended Sources

Textbook: Ali Efdal ÖZKUL-Hasan SAMANİ, İmparatorluktan Cumhuriyete Modern Türkiye'nin Oluşumu. Atatürk İlkeleri ve İnkılap Tarihi, Ankara, 2009.

Assessment

Attendance & Assignment	-	
Midterm Exam (Written)	40%	
Quiz (Written)	-	
Final Exam (Written)	60%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	-	-	-
Assignments	2	1	2
Project/Presentation/Report Writing	-	-	-
E-learning Activities	14	2	28
Quizzes	-	-	-
Preparation for Midterm	1	5	5
Midterm Examination	1	1	2
Preparation for Final	1	8	8
Final Examination	1	1	1
Total Workload			88
Total Workload/30 (h)			2.9
ECTS Credit of the Course			2

NEU, Department of Computer Information Systems

Course Unit Title	Business Communication
Course Unit Code	ENG 201
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	2
Laboratory (hour/week)	-
Year of Study	2
Semester when the course unit is delivered	1
Course Coordinator	İmren Gürbaşar
Name of Lecturer (s)	İmren Gürbaşar
Name of Assistant (s)	
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	ENG 102
Recommended Optional Programme Components	Basic background in English

Objectives of the Course:
Students develop essential business communication skills such as reading texts, answering questions, taking part in meetings, negotiating and telephoning.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Conduct research in the library	3
2	Demonstrate an improvement in reading skills	2
3	Show an awareness of the writing process	2
4	Carry out basic primary research such as case studies	5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Introduction to Business Writing	
2	2	Formats in Business Writing	
3	3	Envelope Formatting	
4	4	Application letter content	
5	5	Understanding Job advertisments	
6		Quiz	

7			Midterm
8	6,7	Applying for a position, Preparing a CV	
9	-	Discussion (Peer review, small group work)	
10	8	Understanding common business abbreviations	
11	9	Application letter format	
12		Quiz	
13		Presentation	
14		Interview	
15			Final

Recommended Sources

Textbook: Our Book, Pamela Edis-Carol Miller, Academic Readings For University Students.

Supplementary Material (s): Business Communication (Harvard Business Essentials), 2003, Harvard Business School Press.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	35%	
Quiz (Written)	15%	
Final Exam (Written)	45%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activiti es	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	6	2	12
Assignments	7	2	14
Project/Presentation/Report Writing	2	5	10
E-learning Activities	3	1	3
Preparation for Quizzes	2	7	14
Quizzes	2	1	2
Preparation for Midterm	1	12	12
Midterm Examination	1	2	2
Preparation for Final	1	20	20
Final Examination	1	2	2
Total Workload			133
Total Workload/30 (h)			4
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Financial Accounting
Course Unit Code	ACC 202
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	
Name of Lecturer (s)	Z.Khan
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	ECON 102
Recommended Optional Programme Components	Basic background on Accounting

Learning Outcomes

This course helps students learn the basics of financial accounting by providing a solid presentation of the root of the principles course, the accounting cycle. Financial Accounting helps students build a foundation upon which they'll continue to learn and grow in their study. Students who take financial accounting will know where the numbers come from and how to find the information they need to make important decision.

When this course has been completed the student should be able to		Assessment.
1	Discuss accounting as the language of business and the role of accounting information in m	2
2	Discuss the significance of the accounting systems in generating reliable accounting	2
3	Explain the importance of the financial accounting information for internal and external par	4
4	Explain the nature and general purpose of financial statements.	3
5	Explain certain accounting principles that are important for an understanding of financial statements and how professional judgment by accountants may affect the application of those principles.	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	4
2	To be able to achieve teamwork.	2
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Accounting: The Language of Business	
2	2	Basic Financial Statements	
3	3	The Accounting Cycle: Capturing Economic Events	

4	3	Capturing Economic Events, Exercises and Problems	
5	4	The Accounting Cycle: Accruals and Deferrals	
6	4	Accruals and Deferrals, Problems and Exercises	
7			Mid-term
8	5	The Accounting Cycle: Reporting Financial Results	
9	5	Reporting Financial Results, Problems and Exercises	
10	6	Merchandising Activities	
11	6	Merchandising Activities, Problems and Exercises	
12	7	Financial Assets	
13	8	Inventories and Cost of Goods Sold	
14	8	Inventories and Cost of Goods Sold, Problem Solutions	
15			Final

Recommended Sources

Textbook: Financial & Managerial Accounting, 14th or 15th Edition, Williams, Haka, Bettner, Carcello, ISBN: 0-07-018189-2, Publisher: McGraw-Hill.

Supplementary Material (s): Principles of Accounting, Belverd E. Needles, Marian Powers, Susan V. Crosson, Cengage Learning; 11 edition, 2011

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	40%	
Quiz (Written)	-	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	14	2	24
Project/Presentation/Report Writing	2	13	26
E-learning Activities	3	2	6
Quizzes	-	-	0
Preparation for Midterm	1	26	26
Midterm Examination	1	3	3
Preparation for Final	1	30	30
Final Examination	1	3	3
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Statistics I
Course Unit Code	MAT 281
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	2
Semester when the course unit is delivered	1
Course Coordinator	Berna Serener
	Berna Serener
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	-
Recommended Optional Programme Components	Basic background Mathematics

Objectives of the Course:
The objective of this course is to provide students majoring in management, marketing, finance, accounting, economics, computer information systems and other fields with an introductory survey of the many applications o descriptive and inferential statistics. After taking this course students will have skills that are needed to deal with the large volume of numerical information. First they will be critical consumers of information presented by others Second, they will be able to reduce large amounts of information into a concise and meaningful form to enable users of statistical data to make effective interpretations, judgments, and decisions.

Learning Outcomes

When this course has been completed the student should be able to		Assessment
1	Learn the basic terminology of statistics	1
2	Learn descriptive statistics	1
3	Learn how to do computer aided statistics using software packages	2

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	2
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	4
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	7	Accounting For Marketable Securities	
2		Generally Accepted Accounting Principles	
3	9	Plant and Intangible Assets	
4	9	Plant and Intangible Assets	
5	10	Liabilities	
6	10	Liabilities	

7			Mid Term
8	11	Stockholders' Equity: Paid-In Capital	
9	11	Stockholders' Equity: Paid-In Capital	
10	12	Income and Changes in Retained Earnings	
11	12	Income and Changes in Retained Earnings	
12	13	Statement of Cash Flows	
13	13	Statement of Cash Flows	
14	14	Financial Statement Analysis	
15	14	Financial Statement Analysis	
			Final

Recommended Sources

Textbook: Statistical Techniques in Business & Economics, 12th Edition, Douglas A. Lind, Williams G. Marchal, Samuel A. Wathen, ISBN: 0-07-111315-0, Publisher: McGraw-Hill

Supplementary Material (s): Statistics, Third Edition, David Freedman, Robert Pisani, Roger Purves
Publisher: W W Norton & Co Inc (Np); 3 Sub edition, 1997

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	30%	
Quiz (Written)	10%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	12	2	24
Assignments	14	3	42
Project/Presentation/Report Writing	-	-	0
E-learning Activities	3	1	3
Preparation for Quizzes	2	13	26
Quizzes	2	2	4
Preparation for Midterm	1	20	20
Midterm Examination	1	3	3
Preparation for Final	1	25	25
Final Examination	1	3	3
Total Workload			192
Total Workload/30 (h)			6.4
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Programming Language I
Course Unit Code	CIS 205
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	2
Semester when the course unit is delivered	1
Course Coordinator	Sahar Shokouhi
Name of Lecturer (s)	Sahar Shokouhi
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 132
Recommended Optional Programme Components	Basic background on Algorithm

Objectives of the Course:

The objective of this course is to teach students the major elements of the C language. Topics include language syntax, data types, variables and constants, input-output operators, logical, arithmetic and string operations, selective control structures: if-then-else, switch, repetition control structures: while, do while, for loops, functions, parameter passing, arrays, pointers, strings manipulations, structures, file I/O operations, memory allocation operations.

Learning Outcomes

	When this course has been completed the student should be able to	**Assessment**
1	After completion of this course students are expected to master basic solving problem kills by using the C programming language.	1

Assessment Methods: 1. Written Exam 2. Assignment 3. Project/Report 4.Presentation 5. Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	2
9	Specializations related to Information Technology.	2

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1.	1, 2	What is C, Basics of Program Writing	
2.	3	Style of Programming	

3.	4	Basic Declarations and Expressions	
4.	5	Arrays, Qualifiers, and Reading Numbers	
5.	6,7	Decision and Control Statements, Programming Process	
6.	8	Control Statements (continued)	
7.			Mid-term
8.	9	Variable Scope and Functions	
9.	10	C Preprocessor	
10.	11	Bit operations	
11.	12	Advanced Types	
12.	13	Simple Pointers	
13.	14	File Input/Output	
14.	15	Debugging and Optimization	
15.16			Final

Recommended Sources

Textbook: Practical C programming, 3rd Edition, Steve Oualline, 1997, O'Reilly Media, Inc. ISBN-56592- -306-5.

Supplementary Material (s): The C Programming Language, 2rd Edition, Brian W. Kernighan and Dennis M. Ritchie, 1988, ISBN-13: 007-6092003106.

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	35%	
Quiz (Written)	20%	
Final Exam (Written)	35%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	1	4	56
Tutorials	1	2	28
Assignments	1	2	28
Project/Presentation/Report Writing	1	20	20
E-learning Activities	5	1	5
Preparation for Quizzes	2	15	30
Quizzes	2	1	2
Preparation for Midterm	1	20	20
Midterm Examination	1	2	2
Preparation for Final	1	22	22

Final Examination	1	2	2
Total Workload			215
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Data Structures
Course Unit Code	CIS 243
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	1
Number of ECTS Credits Allocated	3
Theoretical (hour/week)	7 ECTS
Practice (hour/week)	3
Laboratory (hour/week)	-
Year of Study	2
Semester when the course unit is delivered	1
Course Coordinator	Sahar Shokouhi
Name of Lecturer (s)	Sahar Shokouhi
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 131
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:
Stacks, Queue, circular Queue, Linked lists, Data Structure Techniques, Trees, Binary Trees, Database Structure

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the data structure terminology	1
2	Learn how various data structure elements are organized	1
3	Learn how stacks, queues, lists are organized	1
4	Learn how binary trees are used	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	4
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	2
9	Specializations related to Information Technology.	2
	CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very	

Course Contents

Week	Chapter		Exams
1	1	Introduction to Data Structure	
2	2	Working with Linked List and operations	
3	2	Working with Linked Lists	
4	3	Working with the Stack	
5	3	Working with Stack operations	
6	3	Working with Stack and operations/ Revision	
7			Mid-Term
8	4	Working with the Queue and operations	

9	5	Working with Sorting methods	
10	6	Working with Searching methods	
11	7	Working with Trees	
12	8	Working with Traversal method	
13		Revision	
14			Quiz
15			Final

Recommended Sources

Textbook: Data Structures and Algorithms in Java (2nd Edition) Hardcover 2002, Robert Lafore ISBN-13: 978-0672324536 ISBN-10: 0672324539

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	20%	
Quiz (Written)	20%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	43
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	1	22	22
E-learning Activities	5	2	10
Preparation for Quizzes	2	12	24
Quizzes	2	2	4
Preparation for Midterm	1	23	23
Midterm Examination	1	3	3
Preparation for Final	1	27	27
Final Examination	1	3	3
Total Workload			211
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Statistics II
Course Unit Code	MAT 282
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	Nuriye Sancar
Name of Lecturer (s)	Nuriye Sancar
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	MAT 281
Recommended Optional Programme Components	Basic background on Mathematics

Objectives of the Course:

The objective of his course is to provide students' majority in management, marketing, finance accounting, economics, computer information systems and other fields with an introductory survey of many applications of descriptive an inferential statistics. After taking this course students will have skills that are needed to deal with large volume of numerical information. First they will be critical consumers of information presented by others. Second, they will be able to reduce large amounts of information into a concise and meaningful from to enable users of statistical data to make effective interpretations, judgments and decisions.

Learning Outcomes

When this course has been completed the student should be able to		Assessment
1	Learn to apply statistical theory to management and marketing	1
2	Learn to do statistical analysis on large data	1
3	Learn to carry out surveys and to analyse the results	1
4	Use computer aided statistical methods	3
5		

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	1
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	2
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	9	Estimation and Confidence Intervals.	
2	9	Estimation and Confidence Intervals.	
3	10	One-Sample Tests of Hypothesis.	
4	11	Two-Sample Tests of Hypothesis.	

5	12	Analysis of Variance.	
6	13	Linear Regression And Correlation.	
7			Mid-term
8	14	Multiple Regression And Correlation Analysis.	
9	15	Non-Parametric Methods: Chi-Square Applications.	
10	16	Non-Parametric Methods: Analysis of Ranked Data.	
11	17	Statistical Quality Control.	
12	17	Statistical Quality Control.	
13	19	Time Series And Forecasting.	
14	19	Time Series And Forecasting.	
15			Final

Recommended Sources

Textbook: Statistical Techniques in Business & Economics, 12th Edition, Douglas A. Lind, Williams G. Marchal, Samuel A. Wathen, ISBN: 0-07-111315-0, Publisher: McGraw-Hill.

Supplementary Material (s): Statistics, Third Edition, David Freedman, Robert Pisani, Roger Purves

Publisher: W W Norton & Co Inc (Np); 3 Sub edition, 1997

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	30%	
Quiz (Written)	10%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	10	2	20
Assignments	14	2	28
Project/Presentation/Report Writing	-	-	0
E-learning Activities	5	2	10
Preparation for Quizzes	2	10	20
Quizzes	2	2	4
Preparation for Midterm	1	22	22
Midterm Examination	1	3	3
Preparation for Final	1	28	28
Final Examination	1	3	3
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Programming Language II
Course Unit Code	CIS 232
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	2
Laboratory (hour/week)	2
Year of Study	2
Semester when the course unit is delivered	1
Course Coordinator	Ümit Ilhan
Name of Lecturer (s)	Ümit Ilhan
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

- Write Delphi programs
- Use forms and controls to create state-of-the-art user interfaces
- Use Delphi database components to access databases
- Use Delphi database components for SQL
- Use Delphi database components for Paradox

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	To develop Delphi programs that can access large database systems using SQL queries. Also to develop large scientific Delphi programs.	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	4
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	4

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Delphi 7 and its IDE	
2	2	The Delphi Programming Language	
3	3	The Run Time Library	
4	4	Core Library Classes	
5	5	Visual Controls	

6	6	Building the User Interface	
7			Mid-term Examination
8	7	Prepare Proposal for Term Project	
9	8	Working with Forms	
10	9	Writing Delphi Components	
11	10	Delphi's Database Architecture	
12	11	Printing and Reporting	
13		Revision	
14		Quiz	Quiz
15			Final Examination

Recommended Sources

Textbook: Mastering Delphi 7, Marco Cantù, ISBN: 0-7821-4201-X, Sybex, Inc.

Supplementary Material (s): Coding in Delphi Paperback, Nick Hodges, 2014.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Quiz (Written)	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activiti es	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	48
Tutorials	12	2	24
Assignments	14	3	43
Project/Presentation/Report Writing	1	22	22
E-learning Activities	5	1	5
Preparation for Quizzes	2	15	30
Quizzes	2	1	2
Preparation for Midterm	1	25	2
Midterm Examination	1	3	3
Preparation for Final	1	20	2
Final Examination	1	2	2
Total Workload			224
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	DATABASE MANAGEMET SYSTEM
Course Unit Code	CIS 246
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	Doğuş Ertaç
Name of Lecturer (s)	Doğuş Ertaç
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 243
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

- Needs of business functions for database management,
- Components of modern relational database management systems,
- Components of modern relational database information systems,
- Development of new relational database applications,
- Modelling the logical design of new relational database applications,
- Modelling the physical design of new relational database applications,
- Implementation of new relational database application systems,
- Fundamentals of using a typical modern dbms to build relational database application systems.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	an understanding of the needs for and uses of database management systems in business	1
2	an understanding of the context, phases and techniques for designing and building database information systems in business	1
3	an understanding of the components of a computerized database information system (application)	3
4	an ability to correctly use the techniques, components and tools of a typical database management system -- such as Access 2000 or Oracle 8i -- to build a comprehensive database information system (application)	4
5	an ability to design a correct, new database information system for a business functional area and implement the design, in either Access 2000 or Oracle 8i	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4

4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Introduction to DBMS	
2	1	Introduction to DBMS	
3	2	Components of DBMS	
4	3	Functions of DBMS	
5	4	Logical Designing of Database	
6	5	Physical Design of Database	
7			Mid-term Examination
8	6	Relational Databases	
9	7	Relational Keys	
10	7	Relational Keys	
11	8	Designing a Database	
12		Revision	
13		Term Project Presentations	
14		Quiz	
15			Final

Recommended Sources

Textbook: Database Management Systems: A practical Approach to Design, Implementation, and Management

Supplementary Material (s): Database Management Systems, 3rd Edition, Raghu Ramakrishnan, Johannes Gehrke, 2002, ISBN-13: 978-0072465631 ISBN-10: 0072465638

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	20%	
Quiz (Written)	20%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	12	2	24
Assignments	14	4	48
Project/Presentation/Report Writing	1	20	20
E-learning Activities	5	1	5
Preparation for Quizzes	2	12	24
Quizzes	2	1	2
Preparation for Midterm	1	20	20

Midterm Examination	1	3	3
Preparation for Final	1	20	20
Final Examination	1	3	3
Total Workload			211
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Operating Systems
Course Unit Code	CIS 202
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	0
Laboratory (hour/week)	1
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	Ahmet Hızlı
Name of Lecturer (s)	Ahmet Hızlı
Name of Assistant (s)	-
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 131
Recommended Optional Programme Components	Basic background knowledge on OS

Objectives of the Course:

- Understanding how an OS works
- Relationship between hardware and OS
- To have information about different kind of OS and their working principles

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understand OS's structure	1
2	Using OS	1
3	Using OS's with real examples	2
4	Using Linux	2
5	Using Windows	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	2
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Introduction, General definition and history	
2	2	Processor Scheduling, Scheduler, Performance	
3	2	Processor Scheduling, Algorithms, FCFS	
4	2	Processor Scheduling, SPF	

5	2	Processor Scheduling, SRTF, RRS, Priority	
6	3	Memory Management, Partitioning, Revision	
7			Mid-term
8	3	Memory Management, Paging, Segmentation	
9	4	Virtual Memory	
10	5-6	Deadlocks, Interprocess Communication	
11	6-7	Interprocess Communication, Unix for	
12	8	Unix Shell	
13		Revision	
14		Project Presentation	
15			Final

Recommended Sources

Textbook: Operating Systems: Principles and Practice, Thomas Anderson, Michael Dahlin, Recursive Books; 2 edition, 2014

Supplementary Material (s): The Design of the UNIX Operating System, Maurice J. Bach, Prentice Hall; 1st edition, 1986.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	20%	
Quiz (oral examination)	5%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activi ties	Number	Duration (hour)	Total Workload(hour
Course duration in class	14	3	42
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	2	12	24
E-learning Activities	5	1	5
Preparation for Quizzes	2	9	18
Quizzes	2	1	2
Preparation for Midterm	1	15	15
Midterm Examination	1	2	2
Preparation for Final	1	22	22
Final Examination	1	2	2
Total Workload			184
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Animation Technologies
Course Unit Code	CIS 242
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	1
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	Sahar Shokouhi
Name of Lecturer (s)	Sahar Shokouhi
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 132
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

- Create Photoshop graphics and Flash animations
- Coloring methods and animation editing
- Use Flash animations and Photoshop graphics for web pages

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	To teach students to develop general purpose complex Flash animations and Photoshop graphics	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Introduction to Flash and Working with palette and icons	
2	2	Understanding to components and menus	
3	3	Animations of Swish, Drawing shapes	
4	4	Inserting deleting shapes, Creating animations	
5	5	Introduction to Photoshop	
6	6	Working with palette and icons/ Revision	

7			Mid-term Examination
8	7	Prepare Proposal for Term Project	
9	8	Understanding to components and menus	
10	9	Writing Delphi Components, Differences between Modes	
11	10	Coloring, Drawings	
12	11	Text Effects and Filters	
13		Revision	
14		Quiz	Quiz
15			Final Examination

Recommended Sources
Textbook: Adobe Photoshop CS6 Classroom, Adobe Creative Team, Adobe Press; 1 edition, 2012
Supplementary Material (s): Adobe Photoshop CC Classroom, Andrew Faulkner, Brie Gyncild, Adobe Press; 1 edition, 2014

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Quiz (Oral Examination)	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	48
Tutorials	10	2	20
Assignments	7	2	14
Project/Presentation/Report Writing	1	8	8
E-learning Activities	5	1	5
Preparation for Quizzes	2	5	10
Quizzes	2	1	2
Preparation for Midterm	1	10	10
Midterm Examination	1	2	2
Preparation for Final	1	12	12
Final Examination	1	2	2
Total Workload			133
Total Workload/30 (h)			4
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Information and Communication Technologies
Course Unit Code	CIS 250
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	2
Semester when the course unit is delivered	2
Course Coordinator	Assoc.Prof.Dr.Nadire Cavus
Name of Lecturer (s)	Assoc.Prof.Dr.Nadire Cavus
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 131
Recommended Optional Programme Components	Basic background on Information Systems

Objectives of the Course:

The main objective of this course is to teach the principles and foundational logic of Information and Communication Technologies and how to use of ICT for personal and educational purposes.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the basic principles of Information and Communication Technologies	1,2
2	Learn how to manage of information and communication technologies	3,5
3	Understand the problems of Information and Communication Technologies	4,5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	4
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	2
9	Specializations related to Information Technology.	2

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Basic technical concepts	
2	2	Principles	
3	3	Models	
4	4	Management and foundational logic of information and communication technologies(ICT)	
5	5	Examines history	
6	6	Current trends and future of ICT / Revision	

7			
8	7	Review of global ICT standards and regulations	
9	10	Review of global ICT standards and regulations	Mid-term
10	11	Use of contemporary digital ICT for personal	
11	12	Educational and professional growth	
12		Presentation	
13		Presentation	
14		Revision	
15			Final
16			

Recommended Sources

Textbook: Kr Dutta, S. (2013). Information and Communication Technologies (Icts) for Sustainable Development. Daya Publishing House.

Supplementary Material (s): Reddick, C., & Anthopoulos, L. (2015). Information and Communication Technologies in Public Administration: Innovations from Developed Countries. CRC Press.

Assessment

Attendance & Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	10	2	20
Assignments	10	2	20
Project/Presentation/Report Writing	1	10	10
E-learning Activities	3	1	3
Quizzes	-	-	0
Preparation for Midterm	1	12	12
Midterm Examination	1	2	2
Preparation for Final	1	17	17
Final Examination	1	2	2
Total Workload			128
Total Workload/30 (h)			4.3
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Principles Of Marketing
Course Unit Code	MARK 303
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	3
Semester when the course unit is delivered	1
Course Coordinator	Aisst. Prof. Dr. Ahmet Ertugan
Name of Lecturer (s)	Aisst. Prof. Dr. Ahmet Ertugan
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	MAN 102
Recommended Optional Programme Components	Basic background Marketing

Objectives of the Course:

1. Describe the nature and the application of marketing ideas and concepts;
2. Apply a customer focus in a range of situations;
3. Specify the requirements for effective marketing;
4. Outline the marketing management process and describe the a range of techniques used to implement marketing strategies;
5. Demonstrate the importance of marketing ideas and techniques in a range of organisations and society in general.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Accessing and analysing information whether hard copy or electronic to support knowledge and understanding of the lecture course	1
2	Essay/ report writing skills either individually or in groups	2
3	Discussion, communication and problem solving skills within small groups during seminars	4
4	Ability to demonstrate and exercise independent thought within marketing	1
5		

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	2
7	Specializations related to Information Systems.	3
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams

1	1	Marketing definition	
2	1	The marketing process	
3	2	Understanding the marketplace and customer needs	
4	3	Markets and the marketing system	
5	4	Marketing challenges in the new "connected" millennium	
6	5	Customer value and customer satisfaction/ Demands and needs	
7	6		Midterm
8	7	Product: Goods and services	
9	7	Product and production concept	
10	8	Human needs and wants	
11	8	Demands and market	
12	9	Customer value, satisfaction and quality	
13		Project Presentation	
14		Revision	
15			Final

Recommended Sources

Textbook: Kotler Philip, Armstrong Gary. Principles of Marketing, Pearson, 13th Edition.

Supplementary Material (s): MKTG 8 (with CourseMate Printed Access Card) Paperback 8th ,Charles W. Lamb , Joe F. Hair , Carl McDaniel , 2014,ISBN-13: 978-1285432625 ISBN-10: 1285432622

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Project Presentation	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	14	2	28
Assignments	14	2	28
Project/Presentation/Report Writing	2	1	24
E-learning Activities	5	2	10
Quizzes	-	-	0
Preparation for Midterm	1	20	20
Midterm Examination	1	3	3
Preparation for Final	1	23	23
Final Examination	1	3	3
Total Workload			181
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	System Analysis & Methods
Course Unit Code	CIS 331
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	-
Laboratory (hour/week)	-
Year of Study	3
Semester when the course unit is delivered	1
Course Coordinator	Ömer Gümüş
Name of Lecturer (s)	Ömer Gümüş
Name of Assistant (s)	
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 132
Recommended Optional Programme Components	Basic background computer science

Objectives of the Course:
This course provides students with theoretical and practical skills related to system design and analysis process with an emphasis on object oriented approach. An overview of systems development projects and approaches are followed by thorough coverage of systems analysis and design issues, equipping the students with the ability to perform OOA using the OMG Unified Modeling Language (UML). The topics covered are project management and planning, requirements gathering, documentation, analysis and modeling using tools such as structure charts, PDL, Flowcharts, Waterfall models and Agile modelling, input/output/user interface design, team organisations, system integration and architecture, system interfaces, control and security.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Collect data to analyse and specify the requirements of a system	1
2	Design system environments and components.	4
3	Develop general and detailed models that assist programmers in implementing a system.	4
4	Create a database for storing data and a user interface for data input and output	5
5	Systems Implementation and Operation Abilities	2

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	5
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams

1	1	Introduction to Systems Analysis and Design	
2	2	Analyzing the Business Case	
3	2	Analyzing the Business Case	
4	3	Project Planning Tools	
5	4	Requirements Modeling	
6		Review	
7			Midterm
8	5	Data and Process Modeling Tools	
9	6	Object Modeling	
10	7	Development Strategies	
11	8	User Interface Design and Design Standards	
12	9	Data Design	
13	10	System Architecture	
14		Presentation	
15			Final

Recommended Sources

Textbook: Systems Analysis and Design, Tenth Edition, Course Technology, Cengage Learning Incorporated, 2013, ISBN: 978-1-285-17134-0

Supplementary Material (s): Systems Analysis and Design Methods Hardcover 7th –2005, Jeffrey Whitten , Lonnie Bentley, ISBN-13: 978-0073052335 ISBN-10: 0073052337

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	25%	
Oral examination	5%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	14	3	42
Assignments	14	2	28
Project/Presentation/Report Writing	1	22	22
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	22	22
Midterm Examination	2	1	2
Preparation for Final	1	27	27
Final Examination	1	2	2
Total Workload			192
Total Workload/30 (h)			6,3
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Software Engineering
Course Unit Code	CIS 363
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	3
Semester when the course unit is delivered	1
Course Coordinator	Sahar Shokouhi
Name of Lecturer (s)	Sahar Shokouhi
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 232
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

The aim of this course is to give students an introduction to the principles and practice of analysis, design and in O.O.D implementation of software engineering principles. Through experience of building a significant software system in a team, their experience and understanding of the problems that arise in building complex software systems. They will develop the analytical, critical and modeling skills that are required by a successful software engineering. The students will also be familiarized with the UML and Visual Pradagiem (tool) to model software development and Agile software development methodology. Additionally, they will learn the principles of software life cycle and software documentation.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understand the basic requirements of software engineering and software projects	1
2	Design the software projects using basic software engineering principles	2
3	Test the implemented software projects using defined metrics and principles	3
4	Design and implement a software project.	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	5
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Introduction to Software Engineering and team working	
2	2	Software project Planning (Lifecycle model) and methods	

3	3	Software Requirements gathering and analysis	
4	4	RUP, prepare proposal for term project	
5	5	UML Modeling and Modeling Analyis/ Visual Pradagim	
6	6	Structural Modeling: Class Diagram, Deployment	
7			Mid-Term
8	7	Behavioral Modeling: USECASE, State Machine	
9	8	Introduction to the Agile methodology	
10	9	System Implementation: User Interface Design and Software Design Standards	
11	10	System Implementation: Verification and validation of software systems	
12		Revision	
13		Project presentation	
14		Project presentation	
15			Final

Recommended Sources

Textbook: Software Engineering: A Practitioner's Approach, Roger S. Pressman, 5th edition, ISBN:0-07-365578-3

Supplementary Material (s): Software Engineering 9th, Ian Sommerville, 2010, ISBN-13: 978-137035151 ISBN-10: 0137035152

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	25%	
Oral examination	5%	
Term Project	20%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	14	2	28
Assignments	12	3	36
Project/Presentation/Report Writing	1	20	20
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	20	20
Midterm Examination	1	3	3
Preparation for Final	1	25	25
Final Examination	1	3	3
Total Workload			182
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Internet Programming
Course Unit Code	CIS 340
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	3
Semester when the course unit is delivered	1
Course Coordinator	Ömer Gümüş
Name of Lecturer (s)	Ömer Gümüş
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 246
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

Basic understanding of Internet Architecture, the client/server nature of the World Wide Web, and familiarity with HTML is essential.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	After completion of this course students will be able to design, publish and manage websites.	3

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	5
	CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)	

Course Contents

Week	**Chapter**		**Exams**
1		Introduction to Web Programming	
2	1	Creating Structured Documents	
3	2	Links and Navigation	
4	3, 4	Images and Objects, Tables	
5	5	Forms	
6	6	Frames	

7			
8	7	Cascading Style Sheets	Mid-term
9	8	ASP procedures and Functions	
10	8	ASP procedures and Functions	
11	9	ADO Database Connection	
12	10	ADO Database Connection	
13	10	ADO Database Connection	
14		Project Presentation	
15			Final

Recommended Sources

Textbook: Beginning Web Programming with HTML, XHTML, and CSS-Second Edition-Jon Duckett, Wiley Publishing – 2008 ISBN: 978-0-470-25931-3

Supplementary Material(s): Web Programming And Internet Technologies: An E-Commerce Approach Paperback, Porter Scobey, Pawan Lingras, 2012, ISBN-13: 978-0763773878 ISBN-10: 0763773875

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	40%	
Project Presentation	10%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	10	2	20
Assignments	14	2	28
Project/Presentation/Report Writing	1	35	35
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	12	12
Midterm Examination	1	2	2
Preparation for Final	1	25	25
Final Examination	1	2	2
Total Workload			185
Total Workload/30 (h)			6.1
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Database Programming I
Course Unit Code	CIS 386
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Prof.Dr. Doğan Ibrahim
Name of Lecturer (s)	Ömer Gümüş
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 246
Recommended Optional Programme Components	Basic background on MS Access DB

Objectives of the Course:

- Designed database concepts provide
- Relational database model
- SQL normalization and SQL methodology
- DBMS functions and Administration
- Other database management approaches(client/server)
- Object-oriented databases
- Data warehouses and XML

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Describe the elements of Structured Query Language (SQL).	1,2
2	Design a SQL application architecture.	1,2
3	Manage databases.	3

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	4
8	Specializations related to Software Engineering.	4
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Introduction to SQL Express 2012	
2	2	Relational Databases and SQL	
3	3	Basic Data Retrieval	

4	4-5	Calculations and Aliases, Using Functions	
5	6-7	Column-Based Logic, Row-Based Logic	
6	8-9	Boolean Logic, Inexact Matches/ Revision	
7			Mid-term
8	10	Summarizing Data	
9	11-12	Combining Tables with an Inner Join, Combining Tables with an Outer	
10	13	Self Joins and Views	
11	16	Stored Procedures and Parameters	
12	17-18	Modifying Data, Maintaining Tables	
13		Revision	
14		Prpject Presesntaion	
15			Final
16			

Recommended Sources
Textbook: The Language of SQL, Larry Rockoff, ISBN-13:978-1-4354-5751-5, 2011, Course Technology

Supplementary Material (s): SQL in 10 Minutes, Ben Forta, ISBN-13: 075-2063336076, Sams Teach Yourself (4th Edition)

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	1	25	25
E-learning Activities	5	2	10
Quizzes	-	-	0
Preparaion for Midterm	1	20	20
Midterm Examination	1	3	3
Preparaion for Final	1	25	25
Final Examination	1	3	3
Total Workload			180
Total Workload/30 (h)			6
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Operations Management and Research
Course Unit Code	MAN 308
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	5 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	3
Semester when the course unit is delivered	2
Course Coordinator	Ali Malek
Name of Lecturer (s)	Ali Malek
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	MAN 102
Recommended Optional Programme Components	Basic background in Management and Mathematics

Objectives of the Course:

Since the advent of the industrial revolution, the world has seen a remarkable growth in size and complexity of organizations. As the complexity and specialization in an organization increase, it becomes more and more difficult to allocate the available resources to the various activities in a way that is most effective for the organization as a whole. These kinds of problems and the need to find a better way to solve them is the objective of operations research.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the operations management terminology	1
2	Learn the basic principles of operations management	1
3	Learn how large organizations operate	3

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	3
4	Understand and apply IT skills.	2
5	Analyze, evaluate and manage IT skills.	2
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	3
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Overview of Operations Research	
2	2	Introduction To Linear Programming	
3	2	Graphical LP Solution and Sensitivity Analysis	
4	3	The Simplex Method Applications/ Artificial Solution Methods The M-Method & The Two Phase Method	

5	4	Introduction to Duality / Relationship between the Optimal Primal and	
6	4	Computer Applications	
7			Mid-term
8	5	Transportation Models ; Determination of Starting Solution Simplex	
9	5	The Transshipment and Assignment Models	
10	13	Forecasting Models	
11	14	Decision Analysis and Games	
12		Tora Installation and Execution	
13	--	Discussions and revision of basic topics	
14		Project presentaion	
15			Final

Recommended Sources

Textbook: Operations Management & Research, Hamdy A. Taha 7th Ed., ISBN- 0- 13- 281172-3, Prentice Hall

Supplementary Material (s): Operations Management 12th (McGraw-Hill Series in Operations and Decision Sciences), William J Stevenson,2014, ISBN-13: 978-0078024108

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	35%	
Term Project	10%	
Final Exam (Written)	45%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	14	1	14
Project/Presentation/Report Writing	1	12	12
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	25	25
Midterm Examination	1	2	2
Preparation for Final	1	30	30
Final Examination	1	2	2
Total Workload			152
Total Workload/30 (h)			5.1
ECTS Credit of the Course			5

NEU, Department of Computer Information Systems

Course Unit Title	E-Bussiness Systems
Course Unit Code	CIS 348
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Prof.Dr. Doğan Ibrahim
Name of Lecturer (s)	Ömer Gümüş
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 340
Recommended Optional Programme Components	Basic background on PHP and HTML

Objectives of the Course:

Students will learn:

- Online technologies and trends and their influence on the electronic commerce marketplace.
- Various revenue models market on the Web.
- Online auctions and various legal and ethical issues.
- Students will learn about important security issues,(spam and phishing).
- Organized crime and terrorism, identity theft.
- Online payment fraud and plan for electronic commerce.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understand what is the E-Commerce systems	1,2
2	Understand the importance of web business	1,2
3	Learn how to install and manage online e-systems	3
4	Learn how to use online E-commerce systems	4,5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	4
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	The Second Wave of Global E-Business	
2	2	E-Business Technology Basics	

3	3	Web Server and E-Mail Technologies	
4	4	E-Business Revenue Models	
5	5-6	Selling to Consumers Online, Selling to Businesses Online	
6		Revision	
7			Mid-term
8	7	Virtual Communities	
9	8	E-Business Law and Taxation	
10	9	Web Hosting and E-Business Software	
11	10	Online Security	
12	11	Online Payment Systems	
13	12	Implementing E-Business Initiatives	
14		Students projects presentation	
15		Revision	
16			Final

Recommended Sources

Textbook: Gary Schneider, E-Business, Tenth Edition. Course Technology, Cengage Learning Incorporated, 2013, ISBN-978-1-133-52684-1

Supplementary Material (s):

by Developers from DevZone, Building eCommerce Applications Articles for Developers,ISBN:978-1-4493-1690-7, O'Reilly Media

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written / oral examination)	20+10%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	1	20	20
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	20	20
Midterm Examination	1	2	2
Preparation for Final	1	24	24
Final Examination	1	2	2
Total Workload			181
Total Workload/30 (h)			6.0
ECTS Credit of the Course			6

NEU, Department of Computer Information Systems

Course Unit Title	Programming Language III
Course Unit Code	CIS 352
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	3
Semester when the course unit is delivered	2
Course Coordinator	Ömer Gümüş
Name of Lecturer (s)	Ömer Gümüş
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 132, CIS 386
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

- Write Visual Basic programs
- Use forms and controls to create state-of-the-art user interfaces
- Use Visual Basic database components to access databases
- Use Visual Basic database components for SQL

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	To teach students to develop general purpose complex Visual Basic programs.	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	4
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1		Introduction to Programming Language	
2	2	Integrated Development Environment	
3	3	Introduction to Visual basic Programming	
4	4,5	Control structures: Part I / Control structures: Part II	
5	6,7	Sub procedures and Function Procedures /Arrays	
6	8	Strings, Dates and Times/ Revision	
7			Midterm
8	13	Error Handling and Debugging	
9	14	Error Handling and Debugging	

10	15	Records and Random-Access Files	
11	15	Records and Random-Access Files	
12	18	Database Management	
13		Project Presentation	
14		Quiz /Revision	
15			Final
16			

Recommended Sources

Textbook: Visual Basic 6 How to Program -Harvey M. Deitel (Author), Paul J. Deitel (Author), Tem R. Nieto (Author)- ISBN: 0134569555- Prentice Hall- Gale

Supplementary Material (s): Microsoft Visual Basic 2013 Step by Step, Michael Halvorson, Microsoft Press; 1 edition, 2013

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	35%	
Project Presentation	10%	
Quiz (Written)	10%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	1	25	25
E-learning Activities	5	1	5
Preparation for Quizzes	2	15	30
Quizzes	2	1	2
Preparation for Midterm	1	20	20
Midterm Examination	1	2	2
Preparation for Final	1	25	25
Final Examination	1	2	2
Total Workload			219
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Ethical & Social Issues in Information Systems
Course Unit Code	CIS 342
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	5 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	2
Year of Study	3
Semester when the course unit is delivered	2
Course Coordinator	Umut ZEKİ
Name of Lecturer (s)	Umut ZEKİ
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

Upon successful completion of the course the student should have to demonstrate knowledge of current models of information and computer ethics, apply ethical theories to interpret personal and group behavior when using a variety of information technology tools, evaluate the nature of ethical choices made by self and others when serving various roles that expose social and multicultural differences, construct written arguments in a variety of formats on the evolving nature of ethical norms relating to new technologies.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	To teach students to develop general purpose complex Visual Basic programs.	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1		History	
2		Introduction to Ethics	
3		Introduction to Ethics(Continue)	
4		Intellectual Property	
5		Discussion (Case-study, debate, small group work)	
6		Privacy	
7			Midterm
8		Explanation of Term Project	

9		Quiz # 1 (From Chapter 1-4)	
10		Review for Midterm Exam	
11		Security	
12		Reliability	
13		Issues	
14		Quiz # 2 (From Chapter 6- 7 and Term Project Topic)	
15		Review for Final Exam	
16			Final

Recommended Sources

Textbook: Ethics For The Information Age, Michael J. Queen, 5TH Edition, Publisher: Addison Wesley

Supplementary Material (s): personal notes + Slides of Textbook

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	20%	
Oral examination	10%	
Quiz (Written)	10%	
Final Exam (Written)	25%	
Project	25%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	10	2	20
Project/Presentation/Report Writing	1	12	12
E-learning Activities	5	1	5
Preparation for Quizzes	2	10	20
Quizzes	2	1	2
Preparation for Midterm	1	16	16
Midterm Examination	1	2	2
Preparation for Final	1	18	18
Final Examination	1	2	2
Total Workload			159
Total Workload/30 (h)			5.3
ECTS Credit of the Course			5

NEU, Department of Computer Information Systems

Course Unit Title	Object-Oriented Programming Language I
Course Unit Code	CIS 356
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	3
Semester when the course unit is delivered	2
Course Coordinator	Doğuş Ertaç
Name of Lecturer (s)	Doğuş Ertaç
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 132
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course

The aim of this module is to develop object-oriented approach to make students comfortable for designing and implementing object oriented software. This course is for students who have a basic understanding of object oriented programming. The course focuses on the object-oriented concepts developed in Java programming

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn independently and collaboratively, practice higher levels of thinking, and communicate strategically for learning	1
2	Design and implement small programs during the laboratory sessions using appropriate theoretical frameworks	2
3	Examine the implementation of your software; make an improvement of your software by designing of user-designed classes for solving different domain problems	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	4
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	4
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1		Introduction	
2	Chapter 1	Java programming tools. Java applets and applications.	
3	Chapter 2	Program elements. Data types, control structures, arrays.	

4	Chapter 3	Classes, interfaces and packages. Design of user-defined classes, interfaces	
5	Chapter 4	Graphical user components. /Events interfaces./ Layout managers and its	
6	Chapter 5	Exception handling. User-defined exception class	
7			Mid-term
8	Chapter 7	Multithreading	
9	Chapter 7	Animation	
10	Chapter 8	Input streams and reader classes	
11	Chapter 8	Output streams and writer classes. File classes	
12	Chapter 9	Database access. SQL classes.	
13		Wrap-up and conclusions	
14		Project Peresentaion	
15			Final

Recommended Sources

Textbook: Java: A Beginner's Guide, Herbert Schildt, Mcgraw-Hill Osborne Media; 6 edition, 2014

Supplementary Material (s): Java Programming, Poornachandra Sarang, McGraw-Hill Osborne Media; 1 edition, 2012

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Quiz (Written)	10%	
Project Presentaion	15%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	12	2	24
Assignments	14	2	28
Project/Presentation/Report Writing	1	25	25
E-learning Activities	5	2	10
Preparation for Quizzes	2	10	20
Quizzes	2	2	4
Preparation for Midterm	1	18	18
Midterm Examination	1	3	3
Preparation for Final	1	22	22
Final Examination	1	3	3
Total Workload			213
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Human Resource Management
Course Unit Code	MAN 404
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	5 ECTS
Theoretical (hour/week)	3
Practice (hour/week)	1
Laboratory (hour/week)	-
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Tuğberk Kaya
Name of Lecturer (s)	Tuğberk Kaya
Name of Assistant (s)	-
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	MAN 102
Recommended Optional Programme Components	Basic background on Management

Objectives of the Course:

The main objective of this course is to provide students with skills and knowledge in human resource management consistent with the current needs of organizations. Students will acquire specific, in-depth skills necessary to assist organizations in the effective utilization of employee skills and talents.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the human resource management terminology	1
2	Learn the basic concepts of human resource management	1
3	Learn the techniques to manage organizations effectively	1

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	2
2	To be able to achieve teamwork.	2
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	1
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	1
7	Specializations related to Information Systems.	1
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1
	CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)	

Course Contents

Week	**Chapter**		**Exams**
1	1	The Strategic Role of Human Resource Management	
2	2	Strategic Human Resource Management	
3	4	Job Analysis	
4	5	Personnel Planning and Recruitment	
5	6	Employee Testing and Selection	
6	7	Interviewing Candidates	
7			Mid-term
8	8	Training and Developing Employees	

9	9	Performance Management and Appraisal	
10	11	Establishing Strategic Pay Plans	
11	12	Benefits and Services	
12	15	Labor Relations and Collective Bargaining	
13	16	Employee Safety and Health	
14		Revision	
15			Final

Recommended Sources
Textbook: Human Resource Management 10th Edition, Gary Dessler, Pearson-Prentice Hall, 2005

Supplementary Material (s): Human Resource Management, 13th Edition, by Robert L. Mathis (Author), John H. Jackson, South-Western Cengage Learning, 2010

Assessment

Attendance& Assignment	15%	
Midterm Exam (Written)	25%	
Quiz (Written)	5%	
Final Exam (Written)	50%	
Class Participation	5%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	7	1	7
Project/Presentation/Report Writing	-	-	0
E-learning Activities	3	1	1
Preparation for Quizzes	2	8	16
Quizzes	2	1	2
Preparation for Midterm	1	18	36
Midterm Examination	1	2	2
Preparation for Final	1	22	22
Final Examination	1	2	2
Total Workload			150
Total Workload/30 (h)			5
ECTS Credit of the Course			5

NEU, Department of Computer Information Systems

Course Unit Title	Object Oriented Programming Language II
Course Unit Code	CIS 468
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	7 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Prof.Dr. Doğan Ibrahim
Name of Lecturer (s)	Ömer Gümüş
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 205
Recommended Optional Programme Components	Basic background on C Programming Language

Objectives of the Course:

- Gain an understanding of how types, classes, and objects are related
- Write statements that call methods and to write their own class methods
- Describe how to declare and perform compile-time initialization of array elements
- Understand debugging and exception handling techniques
- Explain how ADO.NET classes are used to retrieve and update data in database
- Explore how the design of Web-based applications differs from Windows applications

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understand what Object Oriented Programming Language is	1,2
2	Understand the importance of ADO.NET	1,2
3	Learn how to Prapare executable program	3
4	Learn how to manage and complated Project on time	4,5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	4
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Introduction to Computing and Programming	
2	2	Data Types and Expressions	
3	3-4	Methods and Behaviors, Creating Your Own Classes	
4	5	Making Decisions	
5	6	Repeating Instructions	
6		Revision	

7			Mid-term
8	7-8	Arrays, Advanced Collections	
9	9	Introduction to Windows Programming	
10	10	Programming Based on Events	
11	11	Advanced Object-Oriented Programming Features	
12	12	Debugging and Handling Exceptions	
13	13-14-15	Working with Files, Working with Databases, Web-Based Applications	
14		Students projects presentation / Revision	
15			Final
16			

Recommended Sources

Textbook: Doyle, Barbara, C# Programming: From Problem Analysis to Program Design, 4th Ed., Cengage Learning, 2014, ISBN 978-1-285-09626-1.

Supplementary Material (s): Karli Watson, Christian Nagel, Jacob Hammer Pedersen, Jon D. Reid, Morgan Skinner, Beginning Visual C# 2010, ISBN:978-1-4571-0611-8,Wiley / Wrox

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	14	2	28
Assignments	14	2	28
Project/Presentation/Report Writing	1	40	40
E-learning Activities	7	2	14
Quizzes	-	-	0
Preparation for Midterm	1	25	25
Midterm Examination	1	3	3
Preparation for Final	1	28	28
Final Examination	1	3	3
Total Workload			211
Total Workload/30 (h)			7
ECTS Credit of the Course			7

NEU, Department of Computer Information Systems

Course Unit Title	Graduation Project Proposal
Course Unit Code	CIS 403
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	0
Number of ECTS Credits Allocated	3 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	2
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Assoc. Prof.Dr. Nadire Çavuş
Name of Lecturer (s)	Assoc. Prof.Dr. Nadire Çavuş
Name of Assistant (s)	Sahar Shokouhi
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	
Recommended Optional Programme Components	

Objectives of the Course:

This is the first phase of graduation project course. Graduation topics are identified. Students can either select topics from offered list or they can individiually find their topics and submit it to the graduation project committee for approval. When approved, students carry out literature search and work on the theoretical aspects of the project. The students are required to work in teams and the chair person assigns a project supervisor from the department which is relevant to their topics. According to these specifications the systems analysis, design and development processes are covered. A project proposal report is developed and presented to the committee.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learning outcomes in this course include, understanding the concept of database, knowing the principles of database design and being able to apply them to business problems; having a broad technical awareness of Oracle back-end database and the features it provides for solutions to various portfolio of projects.	5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	4
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Students are required to meet weekly with their supervisors for guidance and technical support and submit topic to the graduation project committee at the beginning and present the proposal at the end of the semester.

Recommended Sources

Assessment

Command of English	20%	

Style of Presentation	20%	
Knowledge of the Topic	20%	
Work Done	20%	
Ability to answer Questions	20%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	-	-	-
Tutorials	-	-	-
Assignments	-	-	-
Project/Presentation/Report Writing	1	60	60
E-learning Activities	-	-	-
Quizzes	-	-	-
Preparation for Midterm	-	-	-
Midterm Examination	-	-	-
Preparation for Final	-	-	-
Final Examination	-	-	
Self_Study	30	1	30
Total Workload			90
Total Workload/30 (h)			3
ECTS Credit of the Course			3

NEU, Department of Computer Information Systems

Course Unit Title	Summer Training
Course Unit Code	CIS 406
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	0
Number of ECTS Credits Allocated	3 ECTS
Theoretical (hour/week)	0
Practice (hour/week)	0
Laboratory (hour/week)	0
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Assoc. Prof.Dr. Nadire Çavuş
Name of Lecturer (s)	Assoc. Prof.Dr. Nadire Çavuş
Name of Assistant (s)	Sahar Shokouhi
Mode of Delivery	Report, Discussion, Presentation
Language of Instruction	English
Prerequisites and co-requisites	Students should successfully complete 6 semesters
Recommended Optional Programme Components	

Objectives of the Course:

As fulfillment of the degree programme, students should work for duration of 45 work days in Information Technology or Information Systems related companies. Following 6th academic semester, students are able to work in the summer training internship. At the end of the word period, student submits a written report. And granted as PASS grade if all the requirements are fulfilled.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Students are expected to apply their theoretical knowledge, which they acquired during their Bachelor level studies, in a real life professional environment. Summer training can be performed at any private or governmental institution which is involved in any of the following areas: manufacturing, assembly, measurement, control, research and development, software development, technical support, plant management. During the training, the students encounter with the professionals and the real life tasks, so that they have a better chance to prepare themselves for the industries' needs and decide on their exact field of professional interests. At the end of the 45 days of training, which is performed after the third year of the bachelor studies, the students write their summer training reports which summarize their internship experience. The internship period of a student is then judged by the committee evaluation of his/her summer training report.	5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	4
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Students are required to meet weekly with their supervisors for guidance and technical.

Recommended Sources

Assessment

Command of English	20%	
Style of Presentation	20%	
Knowledge of the Topic	20%	
Work Done	20%	
Ability to answer Questions	20%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	-	-	-
Tutorials	-	-	-
Assignments	-	-	-
Project/Presentation/Report Writing	1	70	70
E-learning Activities	-	-	-
Quizzes	-	-	-
Preparation for Midterm	-	-	-
Midterm Examination	-	-	-
Preparation for Final	-	-	-
Final Examination	-	-	-
Self_Study	20	1	20
Total Workload			90
Total Workload/30 (h)			3
ECTS Credit of the Course			3

NEU, Department of Computer Information Systems

Course Unit Title	Graduation Project
Course Unit Code	CIS 400
Type of Course Unit	Compulsory
Level of Course Unit	Bache1or's degree
National Credits	0
Number of ECTS Credits Allocated	8ECT
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	2
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Assoc. Prof.Dr. Nadire Çavuş
Name of Lecturer (s)	Assoc. Prof.Dr. Nadire Çavuş
Name of Assistant (s)	Sahar Shokouhi
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	
Recommended Optional Programme Components	

Objectives of the Course:

This is the second phase of graduation project course. Students are required to develop Depending upon the type of project students are required to develop a software, mobile application, web development, information systems security etc… Students should implement their projects and present it to the graduation project committee. The final project should consist of functional software/hardware, preparing user and system manuals and a report of the procedures, performance checks, and testing results.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learning outcomes in this course include, understanding the concept of database, knowing the principles of database design and being able to apply them to business problems; having a broad technical awareness of Oracle back-end database and the features it provides for solutions to various portfolio of projects.	5

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	5
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Students are required to meet weekly with their supervisors for guidance and technical support and submit topic to the
graduation project committee at the beginning and present the proposal at the end of the semester.

Recommended Sources: -

Assessment

Command of English	20%	
Style of Presentation	20%	
Knowledge of the Topic	20%	
Work Done	20%	
Ability to answer Questions	20%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	-	-	-
Tutorials	-	-	-
Assignments	-	-	-
Project/Presentation/Report Writing	1	100	100
E-learning Activities	-	-	-
Quizzes	-	-	-
Midterm Examination	-	-	-
Final Examination	-	-	-
Self-Study	14	10	140
Total Workload			240
Total Workload/30 (h)			8
ECTS Credit of the Course			8

NEU, Department of Computer Information Systems

Course Unit Title	Management Information Systems
Course Unit Code	CIS 411
Type of Course Unit	Compulsory
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	6 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	2
Course Coordinator	Assoc.Prof.Dr. Nadire Cavus
Name of Lecturer (s)	Ahmet Hızlı
Name of Assistant (s)	Bora Öktekin
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 386
Recommended Optional Programme Components	Basic background on database

Objectives of the Course:

This course gives general knowledge for about management information systems and their subsystems. Management information systems are strategy and action. In this course, students take discussed strategy side. So after define of management information systems and subsystems, students discuss the organization types, system and models, and decision making.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the basic terminology of management information systems	1
2	Learn the management information systems strategy	1
3	Learn the organization types, models, and decision making techniques	2

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	4
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	3
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	4
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	Definition of C.B.I.S.	
2	2	Transaction processing system. Discussing case.	
3	3	Information reporting systems	
4	4	Decision support systems- Office information system	
5	5	Decision support systems- Office information system	
6		Revison	

7			Midterm
8	6	Discussing case – People and organization	
9	6	Discussing case – People and organization	
10	7	Discussing case – People and organization	
11	8	Systems and models	
12	9	Management and decision making for information systems	
13		Revison	
14		Quiz	Quiz
15			Final

Recommended Sources
Textbook: Management Information Systems, C. Parker, T. Case , ISBN 0-07-048573-9, Publisher: Mcgraw-Hill

Supplementary Material (s): Management Information Systems: Managing the Digital Firm 13th Nintendo, 2013, Ken Laudon , Jane P. Laudon, ISBN-13: 978-0133050691 ISBN-10: 0133050696

Assessment

Attendance & Assignment	5%	
Midterm Exam (Written)	35%	
Quiz (Written)	15%	
Final Exam (Written)	45%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	12	2	24
Assignments	14	3	42
Project/Presentation/Report Writing	-	-	0
E-learning Activities	5	1	5
Preparation for Quizzes	2	10	20
Quizzes	2	1	2
Preparation for Midterm	1	18	18
Midterm Examination	1	2	2
Preparation for Final	1	20	20
Final Examination	1	2	2
Total Workload			191
Total Workload/30 (h)			6.3
ECTS Credit of the Course			6

LIST OF ELECTIVES

NEU, Department of Computer Information Systems

Course Unit Title	Development Mobile Application
Course Unit Code	CIS 460
Type of Course Unit	Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Assoc.Prof.Dr. Nadire Cavus
Name of Lecturer (s)	Atalay Talaykurt
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 356
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

- Understand the unique aspects of mobile application design.
- Work in resource sensitive and resolution variant environments.
- Develop applications with location awareness and hardware sensors.
- Understand the use of a mobile device API.
- Develop applications in a client-server environment

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	To develop Android programs that can access systems using SQLite. Also to develop Android programs.	3

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	2
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	4
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	2
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	About Android	
2	2	Installing the SDK	
3	3	Android Stack	
4	4	Creating a project	

5	5	Application context	
6	6	Text controls/ Parameters on Intents	
7			**Mid-term**
8	7	Prepare Proposal for Term Project	
9	8	Localization	
10	9	Options menu	
11	10	Alert dialog	
12	11	Custom dialog	
13		Project presentation	
14		Revision	
15			**Final**

Recommended Sources

Textbook: **Professional Mobile Application Development,** Jeff McWherter, Scott Gowell, Wrox; 1 edition, 2012

Supplementary Material (s): Architecting Mobile Solutions for the Enterprise, Dino Esposito, Microsoft Press; 1 edition, 2012

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	25%	
Project presentation	25%	
Final Exam (Written)	45%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	9	1	9
Assignments	7	2	14
Project/Presentation/Report Writing	1	15	15
E-learning Activities	3	1	3
Quizzes	-	-	0
Preparation for Midterm	1	12	12
Midterm Examination	1	2	2
Preparation for Final	1	16	16
Final Examination	1	2	2
Total Workload			129
Total Workload/30 (h)			4.3
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Web Development (PHP With MySQL)
Course Unit Code	CIS 488
Type of Course Unit	Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Doğuş Sarıca
Name of Lecturer (s)	Doğuş Sarıca
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 132,CIS 246
Recommended Optional Programme Components	Basic background on algorithms

Objectives of the Course:

The objective of this course is to provide students with a sound basis in the development of Web Application that meet the recommendations of the WWW Consortium. The student will not only be able to provide optimum solutions to software problems using the PHP and MySQL technology but will also be equipped to apply this to other related technologies

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	The students will be aware of developing Web applications in accordance with the WWW Consortiums recommendations and	1
2	Students will, by the use of PHP with MySQL, have a broad understanding of what is involved in developing dynamic Web sites from both a business as well as a technical perspective.	2

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	2
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1		Introduction to the Web and some history	
2	1	Introduction to Web Development	
3	1	XHTML and CSS	
4	2	Introduction to PHP basics	
5	3	Working with data types and operators	

6	4,5	Functions and Control Structures/ Manipulating Strings	
7			Mid-term
8	8	Working with databases and MySQL	
9	9	Manipulating MySQL databases with PHP	
10	9	Manipulating MySQL databases with PHP	
11	10	Managing State Information	
12		Project work	
13		Project Presentation	
14		Rivision	
15			Final

Recommended Sources

Textbook: PHP Programming with MySQL, Don Gosselin, ISBN 0-619-21687-5, Publisher: Thomson Course Technology

Supplementary Material (s): Web Database Applications with PHP & MySQL, Hugh E., Williams, David Lane, O'Reilly Media; 2nd edition (May 16, 2004)

Assessment

Attendance& Assignment	10%	
Midterm Exam (Written)	30%	
Project Presentation	45%	
Final Exam (Written)	5%	
Self-Test Questions	10%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	10	2	20
Assignments	5	2	10
Project/Presentation/Report Writing	1	10	10
E-learning Activities	3	1	3
Quizzes	-	-	0
Preparation for Midterm	1	14	14
Midterm Examination	1	2	2
Preparation for Final	1	16	16
Final Examination	1	2	2
Total Workload			133
Total Workload/30 (h)			4,4
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Database Programming II
Course Unit Code	CIS 486
Type of Course Unit	Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	4
Semester when the course unit is delivered	2
Course Coordinator	Kemal Ataman
Name of Lecturer (s)	Kemal Ataman
Name of Assistant (s)	Bora Oktekin
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 386
Recommended Optional Programme Components	Basic background algorithms

Objectives of the Course:

The objective of this course is to provide students with a sound basis in PL/SQL programming and in particula the type of features available in a relational database. Equipped with this awareness and knowledge the student wil be able to provide optimum solutions to software problems using not only the Oracle RDBMS but also any othe relational database such as SQL*Server, MySQL and DB2.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learning outcomes in this course include, understanding the concept of database, knowing the principles of database design and being able to apply them to business problems; having a broad technical awareness of Oracle back-end database and the features it provides for solutions to various portfolio of projects.	1, 5

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	4
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	3
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	Chapter		Exams
1	1	SQL*Plus environment and the data dictionary	
2	1	Spooling and Database Views	
3	2	Database Views and introduction to PL/SQL	
4	3	PL/SQL and Oracle data types	
5	4	Parameter passing in Oracle with introduction to Functions and	
6	4, 5	Functions and Procedures	

7			**Mid-term**
8	6	Introduction to cursors	
9	7	Implicit and Explicit cursors	
10	8	Oracle function and there uses in data validation	
11	8	Transaction processing	
12	9	Dynamic SQL	
13		Lab Exercises/Revision	
14		Quiz	
15			**Final**

Recommended Sources:

Textbook: Oracle PL/SQL Programming, 3rd Edition**,** S. Feuersdein & B. Pribyl, ISBN 0-596-00381-1, Publisher: O'Reilly

Supplementary Material (s): Oracle PL/SQL Programming Paperback 6rd Steven Feuerstein, Bill Pribyl, 2014, ISBN-13: 978-1449324452 ISBN-10: 1449324452

Assessment

Attendance & Assignment	10%	
Midterm Exam (Written)	35%	
Quiz (Written)	5%	
Final Exam (Written)	50%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	4	56
Tutorials	10	2	20
Assignments	7	2	14
Project/Presentation/Report Writing	-	-	0
E-learning Activities	5	1	5
Preparation for Quizzes	1	8	8
Quizzes	1	2	2
Preparation for Midterm	1	10	10
Midterm Examination	1	2	2
Preparation for Final	1	14	14
Final Examination	1	2	2
Total Workload			133
Total Workload/30 (h)			4.4
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Computer Networks
Course Unit Code	CIS 416
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	2
Year of Study	4
Semester when the course unit is delivered	2
Course Coordinator	Prof.Dr. Dogan Ibrahim
Name of Lecturer (s)	Doğuş Sarıca
Name of Assistant (s)	Eren Asvapa
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 131
Recommended Optional Programme Components	Basic background on Computer Sciences

Objectives of the Course:
To understand (a good slice of) the state-of-the-art in network architecture, protocols, and networked systems, and to understand how to conduct networking research and develop innovative ideas.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the basic network elements	1
2	Learn the architecture of computer networks	1,2
3	Learn how to setup a simple computer network	1,5
4	Learn how to setup an advanced computer network	3,5
5	Understant the problems in computer networks and how to solve these problems	2,5

Assessment Methods: 1. Written Exam, 2. Assignment 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	2
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	TCP/IP Implementation Overview.	
2	2	UDP/TCP Code Walkthrough.	
3	3,4	TCP Implementation Walkthrough/ Simple Queueing Theory.	
4	5	Modeling Networks. Network Simulation Tools.	
5	6	Multimedia Applications. Digital audio and video.	
6	7	High-Speed, Integrated Services Networks. ATM, Label Switching,	

7			Mid-term
8	8	Mechanisms and protocols for QoS.	
9	9	Multicast Routing Protocols.	
10	10	Web Performance Issues	
11	11	Various Topics: ALF, ILP.	
12	11	Various Topics: ALF, ILP., and Revision	
13		Project presentaion	
14		Revision	
15			Final Exam
16			

Recommended Sources

Textbook: Wright, G., and Stevens, W., (1996). TCP/IP Illustrated, Volume 2.Addison-Wesley.

Supplementary Material (s): Forouzan, B.A. (2004).Data Communications and Networking, 3/e, ISBN: 0072515848.

Assessment

Attendance & Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	7	2	14
Project/Presentation/Report Writing	1	15	15
E-learning Activities	3	1	3
Quizzes	-	-	0
Preparation for Midterm	1	15	15
Midterm Examination Final	1	2	2
Preparation for	1	20	15
Final Examination	1	2	2
Total Workload			128
Total Workload/30 (h)			4.3
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Information Systems Security
Course Unit Code	CIS 420
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	2
Course Coordinator	Assoc.Prof.Dr. Nadire Cavus
Name of Lecturer (s)	Doğuş Sarıca
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 416
Recommended Optional Programme Components	Basic background on computer network

Objectives of the Course:
To provide an understanding of principal concepts, major issues, technologies, and basic approaches in information security. To provide concept-level hands-on experience in specific topic area. To provide the ability to examine and analyze real-life security cases.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Harden servers and clients	1
2	Recognize common attack patterns.	1
3	Evaluate vulnerability of an information system and establish a plan for risk management	2
4	Demonstrate how to detect and reduce threats in Web security.	5
5	Evaluate the authentication and encryption needs of an information system.	3, 4

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5. Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	3
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	3
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Symmetric Ciphers	
2	2	Block Ciphers and the Data Encryption Standard	
3	3,4,5	Finite Fields, Advanced Encryption Standard	
4	-	Discussion (Scenarios, debate, case-study, small group work)	
5	6	Confidentiality Using Symmetric Encryption	
6	6	Introduction to Number Theory, and Revision	

7			**Mid-term**
8	7	Public-Key Cryptography and RSA	
9	8	Key Management; Other Public-Key Cryptosystems	
10	9	Message Authentication and Hash Functions	
11	10	Hash and MAC Algorithms	
12	11	Digital Signatures and Authentication Protocols	
13	12	Authentication Applications, Revision	
14		Project Presentation/ Revision	
15			**Final**
16			

Recommended Sources

Textbook: In addition readings will also include technical articles, policy articles and general news article as well as Web sites that specialize in security**.**

Supplementary Material (s): Cryptography and Network Security (4th Edition) by William Stallings.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	**Number**	**Duration (hour)**	**Total Workload(hour)**
Course duration in class (including the Exam week)	14	2	28
Tutorials	10	2	20
Assignments	7	2	14
Project/Presentation/Report Writing	1	10	10
E-learning Activities	5	2	10
Quizzes	-	-	0
Preparation for Midterm	1	15	15
Midterm Examination	1	3	3
Preparation for Final	1	18	18
Final Examination	1	3	3
Total Workload			121
Total Workload/30 (h)			4
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Software Testing
Course Unit Code	CIS 421
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	2
Course Coordinator	Assist.Prof.Dr. Boran İekeroğlu
Name of Lecturer (s)	Assist.Prof.Dr. Boran İekeroğlu
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	Programming
Recommended Optional Programme Components	Basic background on programming

Objectives of the Course:

This course is designed to enable a clear understanding and knowledge of the foundations, techniques, and tools in the area of software testing and its practice in the industry. The course will prepare students to be leaders in software testing. Whether you are a developer or a tester, you must test software. This course is a unique opportunity to learn strengths and weaknesses of a variety of software testing techniques**.** Applications of testing techniques in health care industry (e.g. pacemaker), nuclear industry (e.g. plant control), aerospace industry (e.g. Mars Polar Lander), security (e.g. smart card), automobile industry (e.g. automotive control systems), and others will be considered**.**

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Test process and continuous quality improvement	1
2	Test generation from requirements	1
3	Modelling techniques: UML: FSM and Statecharts, Combinatorial design; and others	2
4	Test generation from models	3,4
5	Test adequacy assessment	1,5

Assessment Methods: 1. Written Exam, 2. Assignment , 3. Project/Report, 4.Presentation, 5. Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	5
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	4
8	Specializations related to Software Engineering.	5
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Brief introduction to software systems and SDLC	
2	3	Testing Techniques	
3	4	Test Administration	

4	4	Test Administration	
5	5	Create the Test Plan	
6		Review	
7			**Mid-term**
8	7	Test Metrics – Guidelines and usage	
9	7	Test Metrics – Guidelines and usage	
10	8	Test reporting	
11	8	Test tools used to Build Test Reports	
12	9	Managing change	
13	10	Automation Testing Basics	
14		ProjectPresentation / Review	
15			**Final**
16			

Recommended Sources

Textbook: Software Testing, R. Patton, Sams Publication, 2005.

Supplementary Material (s): Lessons Learned in Software Testing, C. Kaner, John Wiley & Sons, 2002.

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	10	2	20
Assignments	7	2	14
Project/Presentation/Report Writing	1	10	10
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	15	15
Midterm Examination	1	2	2
Preparation for Final	1	18	18
Final Examination	1	2	2
Total Workload			128
Total Workload/30 (h)			4.2
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	Information Systems For Communication
Course Unit Code	CIS 430
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	2
Course Coordinator	Prof.Dr. Doğan Ibrahim
Name of Lecturer (s)	Prof.Dr. Doğan Ibrahim
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 250
Recommended Optional Programme Components	Basic background on Information and Communication Technologies

Objectives of the Course:

The objective of this course is to teach the basic principles of communication to students. The course is of introductory nature. Students learn about the various communication technologies and how to write programs to communicate between two computers.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the basİc principles of communication technologies	1,2
2	Learn how to write programs for communication	5
3	Learn the principles of Internet based communication	3, 4

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	3
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	5
5	Analyze, evaluate and manage IT skills.	5
6	Specializations related to Computer Science.	5
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Introduction to information technology	
2	2	Introduction to communications	
3	3	Types of communications	
4	4	Serial and parallel communications	

5	5	Infrared and ultrasonic communication	
6	6	Introduction to USB/ Revison	
7			
8	7	USB Programming	
9	8	Introduction to CAN bus	**Mid-term**
10	9	CAN Bus programming	
11	10	Introduction to Wi-Fi	
12	11	TCP/IP and UDP	
13	12	Network programming	
14		Project Presentation/ Revison	
15			**Final**
16			

Recommended Sources

Textbook: Introduction to Communication Technologies: A Guide for non Engineers, S. Jones, R.J. Kovac, and F.M. Groom, CRC Press, 2015, UK.

Supplementary Material (s):

Using Information Technology, B. Williams and S. Sawyer, McGraw-Hill, 2012, UK

Assessment

Attendance & Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	48
Tutorials	7	2	14
Assignments	7	2	14
Project/Presentation/Report Writing	1	10	10
E-learning Activities	5	1	5
Quizzes	-	-	0
Preparation for Midterm	1	15	15
Midterm Examination	1	2	2
Preparation for Final	1	18	18
Final Examination	1	2	2
Total Workload			128
Total Workload/30 (h)			4.2
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	E-Learning Systems
Course Unit Code	CIS 435
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Assoc.Prof.Dr.Nadire Cavus
Name of Lecturer (s)	Assoc.Prof.Dr.Nadire Cavus
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing E-learning activities
Language of Instruction	English
Prerequisites and co-requisites	CIS 488
Recommended Optional Programme Components	Basic background on Information Systems

Objectives of the Course:

The main objective of this course is to teach the principles of advanced e-learning systems and how to setup such systems for practical applications.

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Learn the basic principles of e-learning systems	1
2	Learn how to setup and configure an e-learning system	3,5
3	Understand the problems of setting up and using an e-learning system	4,5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	4
3	Information literacy skills in lifelong learning.	4
4	Understand and apply IT skills.	2
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	1
9	Specializations related to Information Technology.	1

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Teaching Online: An Overview	
2	2	Scouting the Territory: Exploring Your Institution's Resources	
3	3	Course Design and Development	
4	4	Working with Othwrs to Develop a Course	
5	5	Creating an Effective Online Syllabus	
6	6	Building an Online Classroom / Revison	
7	7		**Mid-term**
8			

9	8	Student Activities in the Online Classroom	
10	9	Preparing Students for Online Learning	
11	10	Classroom Management and Facilitation	
12	11	Classroom Management: Special Issues	
13	12	Teaching Web Enhanced and Blended Classes	
14	13	Taking Advantage of New Opportunities / Project Presentation	
15			**Final**
16			

Recommended Sources

Textbook: E-learning in the 21st Century: A Framework for Research and Practice, D.R. Garrison, Routledge, 2011.
Supplementary Material (s): Teaching Online: A Practical Guide, S. Ko and S. Rossen, Routledge, 2010.

Assessment

Attendance & Assignment	5%	
Midterm Exam (Written)	30%	
Term Project	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class	14	3	42
Tutorials	7	2	14
Assignments	5	2	10
Project/Presentation/Report Writing	1	14	14
E-learning Activities	8	2	16
Quizzes	-	-	0
Preparation for Midterm	1	10	14
Midterm Examination	1	2	2
Preparation for Final	1	14	14
Final Examination	1	2	2
Total Workload			128
Total Workload/30 (h)			4.3
ECTS Credit of the Course			4

NEU, Department of Computer Information Systems

Course Unit Title	IT Project Management
Course Unit Code	CIS 450
Type of Course Unit	Technical Elective
Level of Course Unit	Bachelor's degree
National Credits	3
Number of ECTS Credits Allocated	4 ECTS
Theoretical (hour/week)	2
Practice (hour/week)	1
Laboratory (hour/week)	1
Year of Study	4
Semester when the course unit is delivered	1
Course Coordinator	Prof.Dr. Doğan Ibrahim
Name of Lecturer (s)	Prof.Dr. Doğan Ibrahim
Name of Assistant (s)	Eren Aspava
Mode of Delivery	Lecturing
Language of Instruction	English
Prerequisites and co-requisites	CIS 363
Recommended Optional Programme Components	Basic background on Software Engineering

Objectives of the Course:

- Understand and articulate the importance of Project Management in any business project
- Clearly define project objectives
- Create a project Work Breakdown Structure
- Develop a manageable project schedule
- Understand scope creep and change control
- Use tools and techniques to manage a project during execution

Learning Outcomes

When this course has been completed the student should be able to		Assessment.
1	Understand what Project Management is	1,2
2	Understand the importance of Project Management	1,2
3	Learn how to manage a software project	3
4	Learn how to use computer aided Project Management tools	4,5

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Project/Report, 4.Presentation, 5 Lab. Work

Course's Contribution to Program

		CL
1	Effective oral and written communication skills.	3
2	To be able to achieve teamwork.	5
3	Information literacy skills in lifelong learning.	5
4	Understand and apply IT skills.	4
5	Analyze, evaluate and manage IT skills.	4
6	Specializations related to Computer Science.	3
7	Specializations related to Information Systems.	5
8	Specializations related to Software Engineering.	5
9	Specializations related to Information Technology.	5

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5:Very High)

Course Contents

Week	**Chapter**		**Exams**
1	1	Introduction to Project Management	
2	4	Project Integration Management	
3	5	Project Scope Management	
4	6	Project Time Management	

5	8	Project Quality Management, Revision	
6		Revision	
7			**Mid-term**
8	9	Project Human Resource Management	
9	10	Project Communications Management	
10	11	Project Risk Management	
11	14	Project Audit and Closure	
12	6 &11	Workshop - CPM and Risk Managemen	
13	9	Workshop - Team Building	
14		Students projects presentation/ Revision	
15			**Final**
16			

Recommended Sources

Textbook: Schwalbe, Kathy. Managing Information Technology Projects. Thomson Course Technology 2009 Sixth Edition.

Kerzner, Harold, Project Management Case Studies, 3rd Edition ISBN: 978-0-470-27871-0

Supplementary Material (s):

Saladis, Frank. and Kerzner, Harold. Bringing the PMBOK Guide to Life : A Companion for the Practicing Project Manager ISBN: 978-0-470-19558-1

Assessment

Attendance& Assignment	5%	
Midterm Exam (Written)	30%	
Term Project (Oral examination)	25%	
Final Exam (Written)	40%	
Total	100%	

ECTS Allocated Based on the Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including the Exam week)	14	3	42
Tutorials	10	2	20
Assignments	7	2	14
Project/Presentation/Report Writing	1	10	10
E-learning Activities	3	1	3
Quizzes	-	-	0
Preparation for Midterm	1	10	10
Midterm Examination	1	3	3
Preparation for Final	1	15	15
Final Examination	1	3	3
Total Workload			120
Total Workload/30 (h)			4
ECTS Credit of the Course			4