



**ANKARA BİLİM**  
ÜNİVERSİTESİ

**İNSAN VE TOPLUM BİLİMLERİ FAKÜLTESİ**  
**YÖNETİM BİLİŞİM SİSTEMLERİ BÖLÜMÜ**  
**MÜFREDAT EL KİTABI**

**FACULTY OF HUMANITIES AND SOCIAL SCIENCES**  
**SYLLABUSES HAND BOOK OF DEPARTMENT OF**  
**MANAGEMENT INFORMATION SYSTEMS**

Genel Bilgiler	Yönetim Bilişim Sistemleri Bölümü, bilgisayar, işletme ve veri bilimi derslerini içeren 4 yıllık bir lisans programı sunmaktadır. Ankara Bilim Üniversitesi eğitim politikası gereği olarak, teorik derslerin yanı sıra, öğrenciler programın son dönemini iş yeri eğitimi olarak geçirmektedir.
Programın Amacı	Yönetim Bilişim Sistemleri programı, bilgisayar, veri bilimi, muhasebe, finans, pazarlama,...vb konularında bilgi sahibi olan, bilişim teknolojilerini işletme yönetim alanlarındaki problemlerin çözümü için etkin olarak kullanabilen öğrenciler yetiştirmeyi amaçlamaktadır.
Kabul Şartları	Programın ilk yılına, ÖSYM tarafından yapılan merkezi yerleştirme sınavı ile öğrenci alınmaktadır. Yurt dışından öğrenci kabulü, ilgili mevzuat hükümleri çerçevesinde Senato tarafından belirlenen esaslara göre yapılır. Yatay ve dikey geçiş ile öğrenci kabulü ise ilgili mevzuat hükümleri doğrultusunda yapılır.
Mezuniyet Koşulları	Ders planında belirtilen zorunlu dersler ile asgari sayıda alınması gereken seçmeli derslerden başarıyla geçmiş, en az 240 AKTS kalmış ve 2.00/4 ortalamaya sahip olan öğrenciler mezun olabilir.
Kazanılan Derece	Lisans Derecesi
Üst Dereceye Geçiş	Programı başarılı bir şekilde tamamlayan öğrenci Yönetim Bilişim Sistemleri bilim alanında veya bu alandan öğrenci kabul eden diğer bilim dallarında yüksek lisans ve doktora derecelerine başvuruda bulunabilir.
İstihdam Olanakları	Yönetim Bilişim Sistemleri programı mezunlarının İş analisti, Proje Yöneticisi, Project Manager, Bilişim Teknolojileri Yöneticisi, Pazarlama Uzmanı, Sistem Analisti ve Tasarımcısı olarak çalışma imkanı bulunmaktadır.
Ölçme ve Değerlendirme	Öğrencilerin başarıları, kısa sınavlar, ara sınavlar, projeler, ödevler vb yöntemlerle ilgili öğretim elemanı tarafından ölçülür ve Üniversitenin bağlı değerlendirme sistemine göre değerlendirilir.

General Information	The Department of Management Information Systems offers a 4-year undergraduate education and training program. Since Management Information Systems is an interdisciplinary field of both in science and in social science, the curriculum covers computer, business and data science courses. In addition to theoretical courses, Ankara Science University Management Information Systems program requires students to complete a workplace training program in the last semester of the programme.
Purpose of the Department	Management Information Systems program aims to educate students who have a strong knowledge of computers, data science, accounting, economy, finance, marketing, ...etc. and are able to use Information Technology (IT) to apply effective methods for solving problems in business and management areas.
Admission Requirements	1.Students holding Turkish citizenship enroll in this programme according to the results of the central exam scores which is set by Student Selection and Placement Center (OSYM). 2. International students who apply to the program are evaluated according to the related Regulations on Ankara Science University. 3. Other admission are evaluated according to the related Regulations on Ankara Science University.
Graduation Requirements	Students are required to complete the designated course plan with minimum 240 ECTS credits and have a minimum CGPA of 2.00/ 4.
Qualification Awarded	Bachelor Degree

Transition to Higher Level	Students who successfully complete the programme could apply to graduate and postgraduate studies in Management Information Systems or in other fields of study which admit students from this department.
Assessment Questionnaire	Business Analyst, Project Manager, IT Manager, Marketing Expert and Manager, Systems Analyst and Designer
Examination Assessment	In the programme, there are many assessment methods such as exams, quizzes, projects,...etc. and the grading is done according to the principles of the university's relative evaluation system.

## TÜRKİYE YÜKSEKÖĞRETİM YETERLİLİKLER ÇERÇEVESİ (TYYÇ) 6. Düzey (Lisans Eğitimi) Yeterlilikleri

### ❖ SINIFLANDIRILMIŞ

#### BİLGİ

##### **Kuramsal –Olgusal:**

**PÇ-1.** Temel matematik ve bilgisayar programlama konusunda bilgi sahibi olur.

**PÇ-2.** İş hayatında ihtiyaç duyulan bilişim sistemini belirler ve kurar.

#### **KNOWLEDGE:**

##### **Theoretical-Factual**

**LO1.** The students have knowledge about the basic mathematical concepts of computer programming.

**LO2.** The students learn how to organize and develop information systems which are needed for the organizations.

#### **BECERİLER**

##### **Bilişsel-Uygulamalı:**

**PÇ-3.** İş uygulamaları için ihtiyaç duyulan veri tabanını yönetir

**PÇ-4.** İş hayatındaki problemlerin çözümü için proje tasarlar ve yönetir.

**PÇ-9.** İstatistiksel yöntemleri kullanarak veriyi modelleme ve analiz becerisi elde eder.

#### **ABILITIES**

##### **Cognitive-Practical:**

**LO3.** The students learn to manage databases which are needed for the business applications.

**LO4.** The students learn to design and manage a project to solve business problems

**LO9.** The students have the knowledge of modelling data by using statistical techniques.

#### **YETKİNLİKLER**

##### **Bağımsız Çalışabilme ve Sorumluluk Alabilme Yetkinliği**

**PÇ-8.** Çok disiplinli projelere uyum sağlar.

**PÇ-10.** Yönetim Bilişim Teknolojileri alanında bireysel ya da grup üyesi olarak projeler yönetir, sorumluluk alır.

##### **Öğrenme Yetkinliği**

**PÇ- 6.** Analitik düşünme becerisi kazanır ve öğrenme kaynaklarını etkin kullanarak kendini sürekli geliştirir.

**PÇ-7.** Bilişim teknolojileri hakkında stratejik düşünme becerisi kazanır, gelişme ve yenilikleri takip eder.

##### **İletişim ve Sosyal Yetkinlik**

**PÇ-5.** Girişimcilik ve yenilikçilik konularında bilgi sahibi olur ve bilişim teknolojileri alanındaki uygulamalarını açıklar.

## **Alana Özgü Yetkinlik**

**PÇ-11.** Meslek etiğine uygun davranır, bilişim uygulamalarının yasal ve sosyal sonuçlarının farkında olur.

### **COMPETENCE**

#### **Ability to Independence Work and Taking Responsibility**

**LO8.** The students are able to adapt to multidisciplinary projects.

**LO10.** The students are able to manage projects both as an individual or a group member and take responsibility.

#### **Learning**

**LO6.** The students have the ability of analytic thinking and develop themselves by using the learning sources effectively.

**LO7.** The students have the ability of strategic thinking about the information technologies, follow the current developments in the information technologies.

#### **Communication and Social**

**LO5.** The students have knowledge about entrepreneurship and innovation and explain their practices on information technologies.

#### **Special to Field**

**LO11.** The students follow the occupational ethic rules and be aware of the results of IT applications.

### **❖ SIRALI**

#### **LEARNING OUTCOMES OF THE PROGRAMME**

1. Temel matematik ve bilgisayar programlama konusunda bilgi sahibi olur.  
**LO1.** The students have knowledge about the basic mathematical concepts of computer programming.
2. İş hayatında ihtiyaç duyulan bilişim sistemini belirler ve kurar.  
**LO2.** The students learn how to organize and develop information systems which are needed for the organizations.
3. İş uygulamaları için ihtiyaç duyulan veri tabanını yönetir  
**LO3.** The students learn to manage databases which are needed for the business applications.
4. İş hayatındaki problemlerin çözümü için proje tasarlar ve yönetir.  
**LO4.** The students learn to design and manage a project to solve business problems
5. Girişimcilik ve yenilikçilik konularında bilgi sahibi olur ve bilişim teknolojileri alanındaki uygulamalarını açıklar.  
**LO5.** The students have knowledge about entrepreneurship and innovation and explain their practices on information technologies.
6. Analitik düşünme becerisi kazanır ve öğrenme kaynaklarını etkin kullanarak kendini sürekli geliştirir.  
**LO6.** The students have the ability of analytic thinking and develop themselves by using the learning sources effectively.
7. Bilişim teknolojileri hakkında stratejik düşünme becerisi kazanır, gelişme ve yenilikleri takip eder.  
**LO7.** The students have the ability of strategic thinking about the information technologies, follow the current developments in the information technologies.
8. Disiplinlerarası projelere uyum sağlar.  
**LO8.** The students are able to adapt to multidisciplinary projects.
9. İstatistiksel yöntemleri kullanarak veriyi modelleme ve analiz becerisi elde eder.  
**LO9.** The students have the knowledge of modelling data by using statistical techniques.
10. Yönetim Bilişim Teknolojileri alanında bireysel ya da grup üyesi olarak projeler yönetir, sorumluluk alır.  
**LO10.** The students are able to manage projects both as an individual or a group member and take responsibility.
11. Meslek etiğine uygun davranır, bilişim uygulamalarının yasal ve sosyal sonuçlarının sorumluluğunun farkında olur.  
**LO11.** The students follow the occupational ethic rules and be aware of the responsibility of the results of IT applications.

❖ **Temel Alan Program Çıktıları İlişkisi**

Türkiye Yükseköğretim Yeterlilikler Çerçevesi		Program Çıktıları										
		PÇ1	PÇ2	PÇ3	PÇ4	PÇ5	PÇ6	PÇ7	PÇ8	PÇ9	PÇ10	PÇ11
<b>Bilgi</b> (Kurumsal-Olgusal)	1	X	X									
<b>Beceriler</b> (Bilişsel-Uygulamalı)	1	X	X	X	X					X		
	2	X	X	X	X					X		
	3	X	X	X	X	X	X	X	X	X	X	X
<b>Yetkinlikler</b> (Bağımsız Çalışma ve Sorumluluk Alabilme Yetkinliği)	1			X	X				X			
	2			X	X				X			
	3			X	X				X			
<b>Yetkinlikler</b> (Öğrenme Yetkinliği)	1					X	X	X				
	2					X	X	X				
<b>Yetkinlikler</b> (İletişim ve Sosyal Etkinlik)	1					X			X			X
	2					X			X			X
	3					X			X			X
<b>Yetkinlikler</b> (Alana Özgü Yetkinlik)	1										X	X
	2		X	X				X			X	X

❖ **Matrix of learning outcomes versus NQF-HETR**

National Qualification Framework for Higher Education in Turkey		Program Outcomes										
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
<b>Knowledge</b> (Theoretical-Factual)	1	X	X									
<b>Abilities</b> (Cognitive-Practical)	1	X	X	X	X					X		
	2	X	X	X	X					X		
	3	X	X	X	X	X	X	X	X	X	X	X
<b>Competence</b> (Ability to Independence Work and Taking Responsibility)	1			X	X				X			
	2			X	X				X			
	3			X	X				X			
<b>Competence</b> (Learning)	1					X	X	X				
	2					X	X	X				
<b>Competence</b> (Communication and Social)	1					X			X			X
	2					X			X			X
	3					X			X			X
<b>Competence</b> (Special to Field)	1										X	X
	2		X	X				X			X	X

**Bilgi:**

**Kuramsal –Olgusal:**

Bilgi-1. Alanındaki güncel kuramsal ve uygulamalı bilgilere sahip olur.

**BECERİLER**

**Bilişsel-Uygulamalı**

Beceri-1. Alanında edindiği ileri düzeydeki kuramsal ve uygulamalı bilgileri kullanır.

Beceri-2. Alanında edindiği ileri düzeydeki bilgi ve becerileri kullanarak verileri yorumlar, sorunları tanımlar, analiz eder, araştırmalara ve kanıtlara dayalı çözüm önerileri geliştirebilir.

Beceri-3. İşletmeler için gerek duyulan bilişim sistemlerini belirler ve kurulmasını sağlar.

## **YETKİNLİKLER**

### **Bağımsız Çalışabilme ve Sorumluluk Alabilme Yetkinliği**

Yetkinlikler-1. Alanı ile ilgili bir projeyi bağımsız olarak planlar ve yürütebilir.

Yetkinlikler-2. Alanı ile ilgili uygulamalarda karşılaşılan sorunları çözmek için bireysel ve ekip üyesi olarak sorumluluk alabilir.

Yetkinlikler-3. Çok disiplinli projelerde görev ve sorumluluk alır.

### **Öğrenme Yetkinliği**

Yetkinlikler-1. Alanında edindiği ileri düzeydeki bilgi ve becerileri eleştirel bir yaklaşımla değerlendirir.

Yetkinlikler-2. Öğrenme gereksinimlerini belirler ve öğrenmesini yönlendirir.

### **İletişim ve Sosyal Yetkinlik**

Yetkinlikler-1. Alanı ile ilgili konularda düşüncelerini ve sorunlara ilişkin çözüm önerilerini yazılı ve sözlü olarak aktarabilir.

Yetkinlikler-2. Toplumsal sorumluluk bilinci ile yaşadığı sosyal çevre için proje ve etkinlikler düzenler.

Yetkinlikler-3. Bir yabancı dili en az Avrupa Dil Portföyü B1 Genel Düzeyi'nde kullanarak alanındaki bilgileri izleyebilir ve meslektaşları ile iletişim kurabilir.

### **Alana Özgü Yetkinlik**

Yetkinlikler-1. Toplumsal, bilimsel, kültürel ve etik değerlere uygun hareket eder.

Yetkinlikler- 2. Alanı ile ilgili verilerin toplanması, analiz edilmesi , yorumlanma işlemlerini etkin biçimde yürütür.

<b>First Semester</b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 111	Introduction to Business and e-Business	3	0	3	5
MIS 121	Business Mathematics I	3	0	3	5
MIS 131	Introduction to Information Technologies	3	0	3	5
MIS 141	Introduction to Algorithms and Java Programming	3	2	4	6
MIS 151	Sectors and Sectoral Practicum	2	0	2	3
TUR 101	Turkish Language I	2	0	2	2
HIS 101	Principles of Ataturk and History of Revolutions I	2	0	2	2
ENG 101	Academic English I	2	0	2	2

OC	Open Class	1	0	0	0
TOTAL		21	2	21	30

<b><u>Second Semester</u></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 112	Human Resources Management	3	0	3	5
MIS 122	Business Mathematics II	3	0	3	5
MIS 132	Economics	3	0	3	5
MIS 142	Object Oriented Programming in Java	3	2	4	6
MIS 152	Special Topics in Sectoral Spectrum	2	0	2	3
TUR 102	Turkish Language II	2	0	2	2
HIS 102	Principles of Atatürk and History of Revolutions II	2	0	2	2
ENG 102	Academic English II	2	0	2	2
OC	Open Class	1	0	0	0
TOTAL		21	2	21	30

<b><u>Third Semester</u></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 211	Production and Operation Management	3	0	3	5
MIS 221	Probability and Statistics I	3	0	3	5
MIS 231	Marketing	3	0	3	5
MIS 241	Web Design and Development	2	2	3	5
ENG 201	Communication Techniques I	2	0	2	2
OC	Open Class	1	0	0	0
ELEC 01	Elective Course 1	3	0	3	5
ELEC 201	Non-Departmental Elective Course	3	0	3	3
TOTAL		20	2	20	30

<b><u>Fourth Semester</u></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 212	Finance	3	0	3	5
MIS 222	Probability and Statistics II	3	0	3	5
MIS 232	Network Security	3	0	3	5
MIS 242	Database Management for MIS	3	0	3	5
ENG 202	Communication Techniques II	2	0	2	2
OC	Open Class	1	0	0	0
ELEC 02	Elective Course2	2	0	3	5
ELEC 202	Non-Departmental Elective Course	3	0	3	3
TOTAL		21	2	20	30

<b><u>Fifth Semester</u></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 311	Optimization and Decision Making	3	0	3	5
MIS 321	Introduction to Data Science	3	0	3	5
MIS 331	Project Management	3	0	3	5
ENG 301	Academic and Occupational Writing Skills I	2	0	2	2

OC	Open Class	1	0	0	0
ELEC 03	Elective Course 3	3	0	3	5
ELEC 04	Elective Course 4	3	0	3	5
ELEC 301	Non-Departmental Elective Course	3	0	3	3
<b>TOTAL</b>		<b>21</b>	<b>0</b>	<b>20</b>	<b>30</b>

<b><i>Sixth Semester</i></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 312	Information System Analysis and Design	3	0	3	5
MIS 322	Decision Support Systems	3	0	3	5
MIS 332	Business Project Development	2	2	3	5
ENG 302	Academic and Occupational Writing Skills II	2	0	2	2
OC	Open Class	1	0	0	0
ELEC 05	Elective Course 5	3	0	3	5
ELEC 06	Elective Course 6	3	0	3	5
ELEC 302	Non-Departmental Elective Course	3	0	3	3
<b>TOTAL</b>		<b>20</b>	<b>2</b>	<b>20</b>	<b>30</b>

<b><i>Seventh Semester</i></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 411	Strategic Management	3	0	3	5
MIS 421	Information Technology Law and Ethics	3	0	3	5
OC	Open Class	1	0	0	0
ELEC 07	Elective Course 7	3	0	3	5
ELEC 08	Elective Course 8	3	0	3	5
ELEC 09	Elective Course 9	3	0	3	5
ELEC 10	Elective Course 10	3	0	3	5
<b>TOTAL</b>		<b>19</b>	<b>0</b>	<b>18</b>	<b>30</b>

<b><i>Eighth Semester</i></b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 412	Workplace Training	3	0	3	25
MIS 422	Project	3	0	3	5
<b>TOTAL</b>		<b>6</b>	<b>0</b>	<b>6</b>	<b>30</b>

<b>Departmental Elective Courses</b>					
Course Code	Course Name	T	P	UC	ECTS
MIS 251	Digital Sociology	3	0	3	5
MIS 252	Research Methods	3	0	3	5
MIS 253	AI-Ally or Enemy in Management	3	0	3	5
MIS 254	Technology Management and Innovation	3	0	3	5
MIS 255	Advanced Microsoft Office Programs	3	0	3	5
MIS 256	Operation Research	3	0	3	5
MIS 257	Accounting Principles	3	0	3	5

MIS 351	Simulation and Modelling	3	0	3	5
MIS 352	Risk Analysis	3	0	3	5
MIS 353	Organizational Behavior	3	0	3	5
MIS 354	Cloud Computing	3	0	3	5
MIS 355	International Business and Information Technologies	3	0	3	5
MIS 356	Statistical Machine Learning	3	0	3	5
MIS 357	Statistical Quality Control	3	0	3	5
MIS 358	Entrepreneurship and Information Technologies	3	0	3	5
MIS 359	Cyber Security	3	0	3	5
MIS 451	Data Mining and Applications	3	0	3	5
MIS 453	Time Series Analysis	3	0	3	5
MIS 455	Block chain Technologies	3	0	3	5
MIS 457	Supply Chain Management	3	0	3	5
MIS 459	Geographic Information Systems	3	0	3	5
MIS 461	Artificial Intelligence Applications for Management	3	0	3	5
MIS 463	International Management	3	0	3	5
MIS 465	Database Applications	3	0	3	5
MIS 467	Leadership in the New Era	3	0	3	5

UNIVERSITY Elective Courses (POOL)					
Course Code	Course Name	T	P	UC	ECTS
MIS 293	Quality Management	3	0	3	3
MIS 294	History of Science	3	0	3	3
MIS 392	Knowing thyself: beginning of all wisdom	3	0	3	3
MIS 491	Management in 21 <sup>st</sup> Century	3	0	3	3

	COURSES	PROGRAM OUTCOMES										
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MIS 111	Introduction to Business and e-Business	2	4	4	4	5	2	2	3	1	3	4
MIS 121	Business Mathematics I	4	4	3	3	1	5	3	2	2	3	1
MIS 131	Introduction to Information Technologies	4	5	4	4	4	2	4	2	2	3	4
MIS 141	Introduction to Algorithms and Java Programming	4	4	3	5	2	5	2	1	2	1	1
MIS 151	Sectors and Sectoral Practicum	2	4	4	4	5	2	2	3	1	3	4
MIS 112	Human Resources Management	2	4	4	5	3	2	3	4	3	4	4

MIS 122	Business Mathematics II	4	4	3	3	1	5	3	2	2	3	1
MIS 132	Economics	2	4	5	5	3	2	3	4	3	4	4
MIS 142	Object Oriented Programming in Java	4	4	3	5	2	5	2	1	2	1	1
MIS 152	Special Topics in Sectoral Spectrum	2	4	4	4	5	2	2	3	1	3	4
MIS 211	Production and Operation Management	3	2	4	5	4	3	4	4	4	5	4
MIS 221	Probability and Statistics I	4	4	3	3	1	5	3	2	2	3	1
MIS 231	Marketing	3	1	4	5	4	3	4	4	4	5	4
MIS 241	Web Design and Development	4	4	3	5	2	5	2	1	2	1	1
MIS 212	Finance	5	1	2	2	2	4	3	1	4	3	4
MIS 222	Probability and Statistics II	4	4	3	3	1	5	3	2	2	3	1
MIS 232	Network Security	4	4	3	5	2	5	2	1	2	1	1
MIS 242	Database Management for MIS	4	3	5	4	2	4	3	3	2	4	4
MIS 311	Optimization and Decision Making	5	2	3	4	1	5	2	4	5	2	4
MIS 321	Introduction to Data Science	4	4	3	3	1	5	3	2	2	3	1
MIS 331	Project Management	2	4	4	5	3	2	3	4	3	4	4
MIS 312	Information System Analysis and Design	5	2	2	4	1	5	2	4	5	4	3
MIS 322	Decision Support Systems	5	3	3	5	1	5	2	4	5	4	3
MIS 332	Business Project Development	2	4	4	5	3	2	3	4	3	4	4
MIS 411	Strategic Management	4	3	3	4	5	4	4	3	3	4	4
MIS 421	Information Technology Law and Ethics	5	2	3	4	3	5	2	4	5	5	5
MIS 412	Workplace Training	3	1	4	4	5	5	3	3	4	2	4
MIS 422	Project	3	1	4	4	5	5	3	3	4	2	4

MIS 251	Digital Sociology	3	3	4	4	3	4	3	4	4	3	4
MIS 252	Research Methods	5	2	2	4	1	5	2	3	5	2	3
MIS 253	AI-Ally or Enemy in Management	3	4	5	5	3	4	3	5	4	3	4
MIS 254	Technology Management and Innovation	2	3	1	4	4	2	4	4	3	4	3
MIS 255	Advanced Microsoft Office Programs	4	2	4	4	2	3	2	2	4	2	3
MIS 256	Operation Research	5	2	2	4	1	5	2	3	5	2	3
MIS 257	Accounting Principles	5	4	5	1	2	4	3	4	4	3	4
MIS 351	Simulation and Modelling	5	5	3	5	2	5	2	1	2	1	1
MIS 352	Risk Analysis	5	2	2	4	1	5	2	3	5	2	3
MIS 353	Organizational Behavior	4	3	3	4	5	4	4	3	3	4	4
MIS 354	Cloud Computing	4	4	3	5	2	5	2	1	2	1	1
MIS 355	International Business and Information Technologies	2	3	3	4	5	3	5	4	3	4	4
MIS 356	Statistical Machine Learning	5	2	2	4	1	5	2	3	5	2	3
MIS 357	Statistical Quality Control	5	2	2	4	1	5	2	3	5	2	3
MIS 358	Entrepreneurship and Information Technologies	3	4	3	4	5	3	4	4	3	4	4
MIS 359	Cyber Security	4	3	3	3	1	1	2	4	5	1	5
MIS 451	Data Mining and Applications	5	2	2	4	1	5	2	3	5	2	3
MIS 453	Time Series Analysis	5	2	2	4	1	5	2	3	5	2	3
MIS 455	Block chain Technologies	3	4	4	4	3	3	4	3	5	3	4
MIS 457	Supply Chain Management	3	4	4	4	3	3	4	3	5	3	4
MIS 459	Geographic Information Systems	3	4	4	4	3	3	4	3	5	3	4
MIS 461	Artificial Intelligence	4	4	3	5	2	5	2	1	2	1	1

	Applications for Management											
MIS 463	International Management	3	3	2	4	4	3	4	4	2	4	4
MIS 465	Database Applications	4	4	3	5	2	5	2	1	2	1	1
MIS 467	Leadership in the New Era	3	4	5	5	3	4	3	5	4	3	4
MIS 293	Quality Management	4	4	3	5	2	5	2	1	2	2	1
MIS 294	History of Science	3	4	5	5	3	4	3	5	4	3	4
MIS 392	Knowing thyself: beginning of all wisdom	3	4	5	5	3	4	3	5	4	3	4
MIS 491	Management in 21 <sup>st</sup> Century	3	4	5	5	3	4	3	5	4	3	4

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Introduction to Business and e-Business	MIS 111	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery (face to face,distance learning)	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS,PhD						
Course objective	to teach basic concepts of business and e-business						
Course Content	Fundamentals of business and economics, Ethics and social responsibility, Information technology & E-Commerce, Entrepreneurs & Small Business Owners, The art and science of marketing,						
References	1.Combe, C. (2012). <i>Introduction to E-business</i> . Routledge. 2. Chaffey, D. (2007). <i>E-business and E-commerce Management: Strategy, Implementation and Practice</i> . Pearson Education.						

Learning outcomes	After taking this course students will be able to; 1.learn basic concepts of business and e-business 2.know ethics and responsibilities in business 3. understand the competition in global economy 4. understand the e-commerce systems 5.understand how to manage human resources
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#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	The fundamentals of business and economics
2. Week	Ethics and social responsibility
3. Week	Competing in global economy
4. Week	Information technology & E-Commerce
5. Week	Forms of Business Ownership
6. Week	Entrepreneurs & Small Business Owners
7. Week	Mid- term exam
8. Week	Functions of management
9. Week	Organization and teamwork
10. Week	Producing quality goods & services
11. Week	Employee motivation, workforce trends and labor relations
12. Week	Managing human resources
13. Week	The art and science of marketing
14. Week	E-business models and e-commerce.
15. Week	E-business infrastructure including security issues
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	
3				X	
4				X	
5					X
6		X			
7		X			
8			X		
9	X				
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Business Mathematics I	MIS 121	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						

Mode of Delivery (face to face,distance learning)	Face to face/ distance learning/hybrid
Learning and teaching strategies	Lecturing, discussion, problem solving
Instructor(s)	Cigdem TOPCU GULOXSUZ, PhD
Course objective	understanding fundamentals of calculus, basic terms of business mathematics, solving of business problems.
Course Content	Numbers and arithmetic operations, elementary algebra, applications in business, fundamentals of calculus I: differential calculus
References	1. Calaway S., Hoffman D., Lippman D. Business Calculus. Opentextbookstore.com, 2013. 2.Karris S.T. Mathematics for Business, Science and Technology, Orchard Publications, Second Edition, 2003.
Learning outcomes	After taking this course students will be able to; recognize the numbers, arithmetic operations recognize the elementary algebra do basic financial calculations know the concept of the derivation take derivatives of financial and economic functions

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Numbers systems, positive and negative numbers, addition, subtraction, multiplication ,division, integer, fractional numbers, arithmetic operations with fractional numbers, exponents, scientific notation
2. Week	Square and cubic roots; common and natural logarithms; percentages; international systems of units(SI), graphs
3. Week	Introduction to algebraic equations; laws of exponents and logarithms; interpolation and extrapolation
4. Week	Infinite sequences and series; arithmetic, geometric, harmonic series; proportions
5. Week	Introduction to common terms of finance and economics; interest, annuities,
6. Week	Amortization, valuation of bonds
7. Week	Mid- term exam
8. Week	Depreciation, Impairment, and Depletion
9. Week	Introducing the basic concepts of real valued functions of one variable
10. Week	Polynomials of degree n, rational, power- law functions , exponential functions, logarithmic functions
11. Week	Derivation of differentiable real-valued function
12. Week	Common functions in economics and finance
13. Week	Curve Sketching

14. Week	Analytics of economic functions
15. Week	Discussion
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4			X		
5	X				
6					X
7			X		
8		X			
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Introduction to Information Technologies	MIS 131	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery (face to face,distance learning)	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD						
Course objective	To teach basics of information technologies						
Course Content	information and computer literacy,File and directory management, Digital Information, Information quality assessment and ethical/legal issues, Computer maintenance, security and problem solving,Multimedia						
References	O'brien, J. A., & Marakas, G. M. (2005). Introduction to information systems (Vol. 13). New York City, USA: McGraw-Hill/Irwin.; Martinko, M. J., Zmud, R. W., & Henry, J. W. (1996). An attributional explanation of individual resistance to the introduction of information technologies in the workplace. Behaviour & Information Technology, 15(5), 313-330.						
Learning outcomes	After taking this course students will be able to; know computer literacy						

	know basic concepts of information technologies understand human computer interaction understand file and directory management understand information quality
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#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to information and computer literacy
2. Week	Basic concepts in information technology
3. Week	Human computer interaction
4. Week	File and directory management
5. Week	Digital Information Resources
6. Week	Information quality assessment and ethical/legal issues
7. Week	Mid- term exam
8. Week	Information quality assessment and ethical/legal issues
9. Week	Data analysis
10. Week	Data analysis
11. Week	Case study
12. Week	Presentation
13. Week	Presentation
14. Week	Computer maintenance, security and problem solving
15. Week	Multimedia
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40

Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2					X
3				X	
4				X	
5				X	
6		X			
7				X	
8		X			
9		X			
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application	Laboratory	National	ECTS
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				(hours/week)	(hours/week)	Credit	
Introduction to Algorithms and Java Programming	MIS 141	Fall	3	0	2	4	6
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery (face to face, distance learning)	Face to face/ distance learning/hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)							
Course objective	To understand the basic principles of algorithms and programming. To be able to solve a problem with an algorithmic approach in Java language.						
Course Content	Basic concepts of programming and properties algorithms, flowcharts, conditional and loop structures, operators, classes, data types in Java.						
References	<p>Horstmann C. Big Java: Late Objects, John Wiley and Sons, Inc., 1st Edition, 2012.</p> <p>Cormen T.H., Leiserson C.E., Rivest R.L., Stein C. Introduction to Algorithms, The MIT Press, 3rd Edition, 2009.</p> <p>Murach J. Murach's Java Programming, 4th Edition, Mike Murach Associates Inc. 2011.</p> <p>Schildt, H. Java: The Complete Reference, Eleventh Edition. McGraw-Hill Education, 2018.</p>						
Learning outcomes	<p>After taking this course students will be able to;</p> <ol style="list-style-type: none"> <li>1. understand the basic concepts of computer programming</li> <li>2. understand the problem formalization</li> <li>3. develop the algorithms and flowcharts</li> <li>4. recognize the conditional and looping structures, classes</li> <li>5. know the data types, function concept</li> </ol>						

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to computers structures and programming
2. Week	Basic properties of algorithm and problem solving with algorithmic approach
3. Week	Introduction to Java Environment
4. Week	Fundamental data types in programming languages, Coding mathematical expressions
5. Week	Flowcharts, flow diagrams , functions and arrays
6. Week	Coding flowcharts with programming languages

7. Week	Mid- term exam
8. Week	Coding flowcharts with programming languages
9. Week	Using the if statement to implement a decision.
10. Week	Coding multiple if statements
11. Week	Introduction to loops
12. Week	Implementing while, for and do loops
13. Week	Practicing with common loop algorithms
14. Week	Understanding nested loops and implementing programs that read and process data sets
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	4	56
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	6	84
Presentation / Seminar Preparation			

Project	1	4	4
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			176
Total Workload/30 hours			5.87
ECTS			6.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4					X
5		X			
6					X
7		X			
8	X				
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Sectors and Sectoral Practicum	MIS 151	Fall	2	0	0	2	3
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Instructor (s)	Handan AKKAS,PhD						
Course objective	to introduce basics of sectoral practicum						
Course Content	basic terms, retails and e-commerce, social, financial and agency & professional services, Leisure, Hospitality & Entertainment,ICT (Technology, Media, Telecom), Energy, Industrials						
References	1.DiMaggio, P. J., & Anheier, H. K. (1990). The sociology of nonprofit organizations and sectors.						

	2. Annual review of sociology, 16(1), 137-159.; Arent, D. J., Tol, R. S.
Learning outcomes	After taking this course students will be able to; 1. know basic terms about sectors 2. understand how retail and e-commerce work 3. understand social, financial and agency & professional services 4. how to give a consultation to sectors 5. have some knowledge about various sectors

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	Retail & E- Commerce
3. Week	Consumer Goods (FMCG & Durables)
4. Week	Case study
5. Week	Social Services
6. Week	Leisure, Hospitality & Entertainment
7. Week	Mid- term exam
8. Week	Financial Services
9. Week	Agency & Professional Services
10. Week	Consultancy
11. Week	Healthcare Services
12. Week	ICT (Technology, Media, Telecom)
13. Week	Energy
14. Week	Industrials
15. Week	Case Study
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0

Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	2	28
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation	14	1	14
Project			
Homework assignment	7	1	7
Midterms ( Study duration )	1	1	1
Final Exam (Study duration)	1	1	1
Total Workload			93
Total Workload/30 hours			3.10
ECTS			3.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	
3				X	
4				X	
5					X
6		X			
7		X			
8			X		
9	X				
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Human Resources Management	MIS 112	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face / Distance Learning / Hybrid						
Learning and teaching strategies	Lecturing, discussion, and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	to give basic knowledge about human resources and management						
Course Content	Planning & recruiting Testing & selection Training & Development Competency-based assessment Job Evaluation techniques Services						
References	Dessler,G. (2011) Human Resource Management, 12. Global Edition, Prentice Hall, ISBN-10: 013608995X; ISBN-13: 9780136089957 Sharon Armstrong & <a href="#">Barbara Mitchel (2019):</a> The Essential HR Handbook, 10th Anniversary Edition: A Quick and Handy Resource for Any Manager or HR Professional, Career Press.						
Learning outcomes	After taking this course students will be able to; understand the manager's role in strategic human resource management make job analysis make personnel planning & recruiting organise training and development programs evaluate payment scale						

**Form IVb (English): Subjects by weeks**

Weeks	Subjects
1. Week	Introduction to Human Resource Management
2. Week	Introduction to Human Resource Management
3. Week	The manager's role in strategic human resource management
4. Week	Job analysis
5. Week	Personnel planning & recruiting
6. Week	Personnel planning & recruiting
7. Week	Mid- term exam
8. Week	Employee testing & selection

9. Week	Training & Development
10. Week	Basic concepts regarding performance management
11. Week	Problems in performance Management and competency-based assessment
12. Week	Establishing Strategic Pay Plans / Job Evaluation techniques
13. Week	Establishing Strategic Pay Plans / Broad banding, Wage Curves.
14. Week	Pay for performance
15. Week	Benefit & Services
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			

Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	
3				X	
4					X
5			X		
6		X			
7			X		
8				X	
9			X		
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Business Mathematics II	MIS 122	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/ distance learning/hybrid						
Learning and teaching strategies	Lecturing, discussion, problem solving						
Instructor (s)	Cigdem TOPCU GULOKSUZ, PhD						
Course objective	To learn basic concepts of integral calculus and intermediate algebra						
Course Content	Integral Calculus, Indefinite Calculus, Definite Calculus, Intermediate Algebra; Systems of two equations, Matrices						
References	1. Calaway S., Hoffman D., Lippman D. Business Calculus. Opentextbookstore.com, 2013.						

	2.Karris S.T. Mathematics for Business, Science and Technology, Orchard Publications, Second Edition, 2003.
Learning outcomes	After taking this course students will be able to; understand the basic concepts of the integral calculus recognize indefinite and definite integral solve systems of two and three equations understand matrices do matrix calculations

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	The area of a rectangle, the definition of integral definite integral and definite integral
2. Week	Integral rules and exercises
3. Week	Integral rules and exercises
4. Week	Applying integral rules to the special functions
5. Week	Applications to business
6. Week	Preparing to exam
7. Week	Mid- term exam
8. Week	Introducing to intermediate algebra, terms, notations and concepts
9. Week	Systems of two equations
10. Week	Systems of three equations
11. Week	Matrices and simultaneous solution of equations
12. Week	Matrices and simultaneous solution of equations
13. Week	Inverse of a matrix, determinant of a matrix
14. Week	Eigenvalues and eigenvectors
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40



Economics	MIS 132	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery (face to face,distance learning)	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	to teach basic concepts of economics						
Course Content	The Scope and Method of Economics						
References	1. Dessler,G. (2011) Human Resource Management, 12. Global Edition, Prentice Hall, ISBN-10: 013608995X; ISBN-13: 9780136089957 2.Gregory Mankiw, Principles of Economics, 5th edition, Cengage Learning, 2008						
Learning outcomes	After taking this course students will be able to; know basic concepts of economics understand household behavior and consumer choice understand production process understand problems in performance Management establish strategic pay plans						

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	The Scope and Method of Economics
3. Week	The Economic Problem: Scarcity and Choice
4. Week	Demand, Supply, and Market Equilibrium
5. Week	Demand and Supply Applications, Elasticity
6. Week	Household Behavior and Consumer Choice
7. Week	Mid- term exam
8. Week	The Production Process
9. Week	Costs Functions and Output Decisions
10. Week	General Equilibrium
11. Week	Problems in performance Management and competency-based assessment
12. Week	Establishing Strategic Pay Plans / Job Evaluation techniques

13. Week	Establishing Strategic Pay Plans / Broad banding, Wage Curves.
14. Week	Pay for performance
15. Week	Benefit & Services
16. Week	Final Exam

**Form Vb (İngilizce): Assesment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	
3				X	
4					X
5			X		
6		X			
7			X		
8				X	
9			X		
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Object Oriented Programming in Java	MIS 142	Spring	3	2	0	4	6
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						
Course objective	To understand the basic principles of algorithms and programming. To be able to solve a problem with an algorithmic approach in Java language.						
Course Content	Basic concepts of object oriented programming, polymorphism, inheritance, encapsulation, abstraction, class, object.						
References	Horstmann C. Big Java: Late Objects, John Wiley and Sons, Inc., 1st Edition, 2012. Cormen T.H., Leiserson C.E., Rivest R.L., Stein C. Introduction to Algorithms, The MIT Press, 3rd Edition, 2009. Murach J. Murach's Java Programming, 4th Edition, Mike Murach Associates Inc. 2011. Schildt, H. Java: The Complete Reference, Eleventh Edition. McGraw-Hill Education, 2018.						
Learning outcomes	After taking this course students will be able to; 1. understand the basic concepts of object oriented programming						

	2. understand the concepts of classes, objects, and encapsulation 3. design, implement, and test your own classes 4. learn about inheritance 5. understand the concept of polymorphism
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#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to Object Oriented Programming
2. Week	Classes and Objects
3. Week	Problem Solving: Tracing Objects
4. Week	Use a Single Class for Variation in Values, Inheritance for Variation in Behavior
5. Week	Super and Subclasses
6. Week	Data abstraction
7. Week	Mid- term exam
8. Week	Data encapsulation
9. Week	Inheritance
10. Week	Polymorphism
11. Week	Graphical user interface Programming
12. Week	Database Connection
13. Week	Multithreading
14. Week	Practicing with Java programming
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40

Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	4	56
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	6	84
Presentation / Seminar Preparation			
Project	1	4	4
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			176
Total Workload/30 hours			5.87
ECTS			6.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4					X
5		X			
6					X
7		X			
8	X				
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Special Topics in Sectoral Spectrum	MIS 152	Spring	2	0	0	2	3
Prerequisites	None						

Course Language	English
Course Type	Compulsory
Mode of Delivery	Face to face/Distance Learning/Hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	Handan AKKAS, Ph.D
Course objective	to introduce basics of sectoral practicum
Course Content	basic terms, retails and e-commerce, social, financial and agency & professional services, Leisure, Hospitality & Entertainment, ICT (Technology, Media, Telecom), Energy, Industrials,
References	1.DiMaggio, P. J., & Anheier, H. K. (1990). The sociology of nonprofit organizations and sectors. 2. Annual review of sociology, 16(1), 137-159.; Arent, D. J., Tol, R. S.
Learning outcomes	After taking this course students will be able to; 1. know basic terms about sectors 2. understand how retail and e-commerce work 3. understand social, financial and agency & professional services 4. how to give a consultation to sectors 5. have some knowledge about various sectors

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Introduction to ethics
2. Week	Business ethics, Ethical dilemmas
3. Week	Employees and their ethical problems
4. Week	Retail and e-commerce sector
5. Week	Consumer goods sector
6. Week	Social services sector
7. Week	Leisure, hospitality and entertainment sector
8. Week	Mid- term exam
9. Week	Financial services sector
10. Week	Agency & professional services sector
11. Week	Consultancy sector
12. Week	Healthcare services sector
13. Week	ICT sector
14. Week	Energy sector
15. Week	Industry sector

16. Week	Final Exam
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**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	2	28
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation	14	1	14
Project			
Homework assignment	7	1	7
Midterms ( Study duration )	1	1	1
Final Exam (Study duration)	1	1	1
Total Workload			93
Total Workload/30 hours			3.10
ECTS			3.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	

3				X	
4				X	
5					X
6			X		
7			X		
8				X	
9	X				
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Production and Operation Management	MIS 211	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery (face to face, distance learning)	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cem Harun Meydan, PhD.						
Course objective	to teach basic concept of Production and Operation Management						
Course Content	Operations Strategy, Process Design Strategy, Process Analysis						
References	1) Krajewski L.J., Larry P. Ritzman .Operations Management: Process and Value Chains, Seventh Edition, Pearson Prentice Hall, 2005, 0-13-27310-8.						
Learning outcomes	After taking this course students will be able to; understand production and management basics understand operation and process design conduct a process analysis process performance and quality plan and manage projects						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	Operations As A Competitive Weapon

3. Week	Decision Making
4. Week	Operations Strategy
5. Week	Process Design Strategy
6. Week	Process Analysis
7. Week	Mid- term exam
8. Week	Process Performance And Quality
9. Week	Project Capacity
10. Week	Process Layout
11. Week	Planning And Managing Projects
12. Week	Problem Solving
13. Week	Problem Solving
14. Week	Problem Solving
15. Week	Evaluation
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			

Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2		X			
3				X	
4					X
5				X	
6			X		
7				X	
8				X	
9				X	
10					X
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Probability and Statistics I	MIS 221	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery (face to face, distance learning)	Face to face/ distance learning/hybrid						

Learning and teaching strategies	Lecturing, discussion, problem solving
Instructor(s)	Cigdem TOPCU GULOXSUZ, PhD
Course objective	to teach basic concepts of probability and statistics
Course Content	Introduction to statistics, basic concepts of statistics, data presentation, summary measures, introduction to probability, discrete and continuous probability models
References	1.Hogg R.V., Craig., McKean J.W. Introduction to Mathematical Statistics, 7th Edition, Pearson Education Inc.,2012. 2.Rohatgi, V.K., A. K. Md. Ehsanes Saleh. An Introduction to Probability and Statistics, 3rd Edition, John Wiley, 2015. 3.Ross, S. M. Introduction to Probability Models, 10th Edition, Elsevier, 2010.
Learning outcomes	After taking this course students will be able to; know the fundamental definitions of statistics present a data set calculate and report summary statistics of a data set understand the probability concepts distinguish and understand continuous and discrete probability models

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Basic definitions in statistics, introduction to data presentation, frequency tables
2. Week	Histograms, bar charts, stem and leaf plots
3. Week	Exercises with some data sets
4. Week	Measures of location, spread
5. Week	Box and Whisker plots
6. Week	Exercises with some data sets
7. Week	Mid- term exam
8. Week	Probability space, sigma algebra, definition of probability measure, sample spaces, events, sets
9. Week	Probability axioms, simple properties, independent events, conditional probability, theorem of total probability, Bayes Rule
10. Week	Definition of a random variable, discrete and continuous random variables, expected value, variance of a random variable
11. Week	Discrete probability models, introduction to probability mass functions and distribution functions, expectation, variance and their properties
12. Week	Some common discrete probability models and their properties
13. Week	Continuous probability models, introduction to probability density functions and distribution functions, expectation, variance and their properties
14. Week	Some common continuous probability models and their properties
15. Week	The Normal Distribution
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			

3		X			
4				X	
5	X				
6					X
7		X			
8			X		
9					X
10		X			
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semestre	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Marketing	MIS 231	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/ Distance Learning / Hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Handan Akkaş, PhD.						
Course objective	to teach basic concepts of Marketing and its principles						
Course Content	Customer Value Customer Relationships Marketing Environment Customer Insights Buyer Behavior						
References	Kotler, Philip; Armstrong Gary, Principles of Marketing: Global Edition, 14th Edition, 2012						
Learning outcomes	After taking this course students will be able to; have basic knowledge about Marketing and its principles analyze and understand customer needs analyze and understand market needs create marketing strategy analyze market risks						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Marketing: Creating and Capturing Customer Value

2. Week	Company and Marketing Strategy: Partnering to Build Customer Relationships
3. Week	Analyzing the Marketing Environment
4. Week	Case study
5. Week	Managing Marketing Information to Gain Customer Insights
6. Week	Case study
7. Week	Mid- term exam
8. Week	Consumer Markets and Consumer Buyer Behavior
9. Week	Case study
10. Week	Business Markets and Business Buyer Behavior
11. Week	Presentation
12. Week	Presentation
13. Week	Presentation
14. Week	Presentation
15. Week	Presentation
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			

Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2	X				
3				X	
4					X
5				X	
6			X		
7				X	
8				X	
9				X	
10					X
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Web Design and Development	MIS 241	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						

Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members
Course objective	To teach basics of web design
Course Content	design techniques, ASP. NET MVC or PHP , XML data structures,Project Application and Execution
References	Robbins J. N. (2012). Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics, O'Reilly Media; Fourth edition Duckett J. (2011). HTML and CSS: Design and Build Websites. John Wiley & Sons; 1st edition
Learning outcomes	After taking this course students will be able to; understand the principles of design have knowledge about design techniques understand ASP.NET, MVC or PHP learn XML data structures conduct project applications

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to design techniques
2. Week	Web Applications and Principles of Design
3. Week	Introduction to ASP. NET MVC or PHP
4. Week	ASP. NET MVC or PHP
5. Week	ASP. NET MVC ya da PHP
6. Week	ASP. NET MVC ya da PHP
7. Week	Mid- term exam
8. Week	XML data structures
9. Week	XML data structures
10. Week	XML data structures
11. Week	XML data structures
12. Week	Project Application and Execution
13. Week	Project Application and Execution
14. Week	Project Application and Testing
15. Week	Project Application and Testing
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0

Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4					X
5		X			
6					X
7		X			

8	X			
9		X		
10	X			
11	X			

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semestre	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Finance	MIS 212	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/ distance learning/hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	At the end of the course, students will be able to understand basic financial concepts and theories, gain the ability to interpret financial information and make financial planning.						
Course Content	The role of financial management, corporate structure, financial instruments, the time value of money, financial statement analysis, financial planning						
References	<ul style="list-style-type: none"> <li>- James C. Van Horne and John M. Wachowicz, Jr, Fundamentals of Financial Management</li> <li>- Financial Management?Eleventh Edition, Prentice Hall, 0-13-018998-7.</li> <li>- Weston, Besley and Brigham, Essentials of Manegerial Finance, Eleventh Edition, Dryden, 0-03-016889-9.</li> </ul>						
Learning outcomes	<p>After taking this course students will be able to;</p> <ul style="list-style-type: none"> <li>- Understanding basic financial concepts.</li> <li>- Be able to discuss basic finance theory.</li> <li>- Gaining skill at implementing finance theories.</li> <li>- Gaining ability to interpret financial information.</li> <li>- Problem solving skills are developed.</li> <li>- By financial statement analysis, can measure performance.</li> <li>- Financial planning can do.</li> <li>- Defining different companies and structure and appropriate strategies can be developed.</li> </ul>						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	The role and duties of financial management

2. Week	Company structures, taxes and financial environment
3. Week	Financial instruments
4. Week	Case Solution
5. Week	Time value of money
6. Week	Securities Valuation: Bond Valuation
7. Week	Securities Valuation: Stock Valuation
8. Week	Mid- term exam
9. Week	Risk and return: Basic concepts
10. Week	Risk and return: Portfolio theory and capital valuation models
11. Week	Financial statement analysis
12. Week	Case study
13. Week	Fund flow analysis, cash flow analysis and financial planning
14. Week	Working capital management
15. Week	General Evaluation
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%5
Laboratory	0	%0
Application	0	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	1	%15
Presentation	0	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%30
Final Exam	1	%50
Total	17	%100
Contribution of semester Works to success points	16	%50
Contribution of final exam to success points	1	%50
Total	17	%100

#### Form Vlb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			

Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	4	56
Presentation / Seminar Preparation			
Project			
Homework assignment	1	10	10
Midterms ( Study duration )	1	15	15
Final Exam (Study duration)	1	27	27
Total Workload			150
Total Workload/30 hours			
ECTS			5 AKTS

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2				X	
3					X
4	X				
5		X			
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Probability and Statistics II	MIS 222	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/ distance learning/hybrid						
Learning and teaching strategies	Lecturing, discussion, problem solving						

Instructor(s)	Cigdem TOPCU GULOXSUZ, PhD
Course objective	to teach basic concepts of probability and statistics
Course Content	bivariate random variables, joint probability distributions, point estimation, hypotheses testing
References	1.Hogg R.V., Craig., McKean J.W. Introduction to Mathematical Statistics, 7th Edition, Pearson Education Inc.,2012. 2.Rohatgi, V.K., A. K. Md. Ehsanes Saleh. An Introduction to Probability and Statistics, 3rd Edition, John Wiley, 2015. 3.Ross, S. M. Introduction to Probability Models, 10th Edition, Elsevier, 2010.
Learning outcomes	After taking this course students will be able to; understand probability distributions for bivariate random variables develop probability models for the joint behavior of several random variables know estimation procedures distinguish point estimation and interval estimation construction and testing hypotheses related to mean, ratio and variance based on single and two samples

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Bivariate discrete random variables, joint probability function, marginal probability functions and the relationship between them
2. Week	conditional distributions, expected value, variance, covariance, correlation for discrete case
3. Week	Bivariate continuous random variables, joint probability density function, marginal probability functions and the relationship between them
4. Week	conditional distributions, expected value, variance, covariance, correlation for continuous case
5. Week	A short brief of more than two variables
6. Week	Exercises
7. Week	Mid- term exam
8. Week	Basic concepts of point estimation
9. Week	Methods of point estimation
10. Week	Properties of confidence intervals, confidence interval for population mean and variance
11. Week	Tests of Hypotheses based on single sample, test procedures
12. Week	Tests about population mean, variance and ratio
13. Week	Tests of Hypotheses based on two sample, test procedures
14. Week	Difference between two population means, variance, ratio
15. Week	Supplementary exercises
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
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Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				

6					X
7		X			
8			X		
9					X
10		X			
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Network Security	MIS 232	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						
Course objective	To teach principles of computer network security						
Course Content	Computer networks, Encryption techniques , User authentication , Key distribution, Access Control, Transport Layer Security, Wireless network security, E-mail security, IPSec						
References	W. Stallings, Network Security Essentials: Applications and Standards, >=5 ed, Pearson R. Collings, Network Security Monitoring: Basics for Beginners. A Practical Guide, Create Space Publishing. J. Kurose, K. Ross, Computer Networking: A Top-Down Approach, <=5. Ed., Pearson. <a href="#">Tanenbaum A.</a> , <a href="#">Wetherall D.</a> (2010) Computer Networks, 5th Edition, Pearson.						
Learning outcomes	After taking these course students will be able to; have basic knowledge about digital encryption techniques understand network security concepts understand user authentication methods interpret key distribution and cloud security differentiate access control mechanisms understand Transport Layer Security fundamentals recognize wireless network security, e-mail security and IP implementations						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
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1. Week	Course Overview and Introduction to Network Security Concepts
2. Week	Fundamentals of cryptography: Symmetric Encryption
3. Week	Fundamentals of cryptography: Asymmetric Encryption
4. Week	Key distribution, Key management,
5. Week	User authentication, Message authentication
6. Week	Digital signatures, Digital Certificates
7. Week	Mid- term exam
8. Week	Network access control and Cloud security
9. Week	Wireless network security
10. Week	Transport Layer Security and HTTPS
11. Week	DNS and DNS Security (DNSsec), IPsec
12. Week	E-Mail Security and PGP
13. Week	Firewalls, IDS and IPS
14. Week	DOS and DDOS attacks, Malicious software
15. Week	Contemporary topics and recitation
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	0	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment / Quizzes	4	%10
Presentation	0	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%50
Total	20	%100
Contribution of semester Works to success points	19	%50
Contribution of final exam to success points	1	%50
Total	20	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation			
Project			
Homework assignment/ Quizzes	4	5	20
Midterms ( Study duration )	1	15	15
Final Exam (Study duration)	1	30	30
Total Workload			149
Total Workload/30 hours			4.96
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2				X	
3		X			
4			X		
5	X				
6	X				
7		X			
8				X	
9				X	
10	X				
11					X

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Database Management Systems for MIS	MIS 242	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						

Mode of Delivery	Face to face/Distance Learning/Hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members
Course objective	To teach basics of database management systems from initial stages of analysis to ultimate activities involving design and implementation.
Course Content	The characteristics of database approach & relations, techniques and methodologies of Database Management Systems; Entity Relationship approach to data modeling (ER Diagrams), the relational model of DBMS, relational mapping, normalization and Structured Query Language (SQL), the contributions of DBMS to an organization's operations, control and planning activities.
References	1. Coronel, C., Morris, S., and Rob, P. (2013) Database Principles: Fundamentals of Design, Implementation, and Management, 10th edition, Course Technology, Cengage Learning.  2. R. Elmasri & S.B. Navathe, (2011), Database Systems: Models, Languages, Design, and Application Programming, 6th edition, Pearson.
Learning outcomes	After taking this course students will be able to; analyze and structure data requirements of an information system design a conceptual database (ER diagram) by analyzing a given business case convert a conceptual database design into a logical table design implement the logical table design in a physical environment (i.e. MySQL) and perform queries using SQL demonstrate collaboration and teamwork

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to Database
2. Week	Database Environment, Database Development Process
3. Week	Database Analysis, Modeling Data
4. Week	Enhanced E-R Model and Business Rules
5. Week	Database Design
6. Week	Logical Database Model
7. Week	Mid- term exam
8. Week	Physical Database Design
9. Week	Database Implementation
10. Week	Database implementation with SQL
11. Week	Database implementation with SQL
12. Week	Client/Server Database Environment
13. Week	Internet Database Environment

14. Week	Data Warehousing
15. Week	Review
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2			X		
3					X
4				X	
5		X			
6				X	
7			X		
8			X		
9		X			
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Optimization and Decision Making	MIS 311	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD						
Course objective	To teach the techniques of optimization and decision making						
Course Content	Probability distributions, sensitivity analyses, linear programming, nonlinear optimization, multi objective decision making						
References	1. Goodwin, Paul; and George Wright (2014) Decision Analysis for Management Judgment. Fifth Edition. Wiley. ISBN:9781118887875. 2. Render B., Stair R.M. Jr., Hanna M.E. (2003) "Quantitative Analysis for Management", Pearson Education Inc.						
Learning outcomes	After taking this course students will be able to; 1. use probability concepts in decision making 2. understand how regression analysis work 3. conduct sensitivity analysis and interpret the results 4. build linear programming models 5. know how to use Non-linear optimization and multi objective decision making						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Describing data: Graphs, tables, summary measures
2. Week	Probability distributions
3. Week	Confidence interval estimation and hypothesis testing
4. Week	Regression analysis
5. Week	Building linear programming (LP) models - Graphical method, Solver
6. Week	Sensitivity analysis
7. Week	Mid- term exam
8. Week	LP applications
9. Week	LP applications continued, Data Envelopment Analysis
10. Week	Optimization with integer variables
11. Week	Non-linear optimization, multi-objective decision making
12. Week	Non-linear optimization, multi-objective decision making continued
13. Week	Simulation modeling
14. Week	Simulation modeling continued
15. Week	Case study
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

<b>Semester Works</b>	<b>Number</b>	<b>Contribution</b>
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3			X		
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10		X			
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Introduction to Data Science	MIS 321	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						

Mode of Delivery	Face to face/Distance Learning/Hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	Cigdem TOPCU GULOXSUZ, PhD
Course objective	to teach advanced data analysis techniques and applications with R
Course Content	The role of data analyst and data scientist, vertical use cases, and business applications of data science. Where and how to acquire data, methods for evaluating source data, and data transformation and preparation. Statistical models and methods; prediction vs. description; exploratory data analysis; communication; visualization; data processing, munging and engineering; big data; coding; ethics; asking good questions.
References	N. Zumel and J. Mount. Practical Data Science with R, Manning Publications, 2014. Irizarry R.A. An Introduction to Data Science, CRC Press, 2020.
Learning outcomes	After taking this course students will be able to; 1. understand basic concepts of data science 2. understand the importance and ways and means of data preprocessing 3. use a data science tool such as R 4. understand the importance of data, data processing and getting information out of it 5. obtain, prepare, process and visualize data using R

**Form IVb (English): Subjects by weeks**

Weeks	Subjects
1. Week	Examples, data science articulated, history and context, technology landscape
2. Week	Data Science Tools : Introduction to R basics, installing packages
3. Week	R Data Types and reading data in and writing out, lists, vectors, matrices
4. Week	Control structures and Loops in R Functions and Libraries
5. Week	Control structures and Loops in R Functions and Libraries (Con't)
6. Week	Data Sources: How to obtain data, transform and manage,
7. Week	Mid- term exam
8. Week	Data Preparation with R, Data visualization
9. Week	Statistics with R, random variables
10. Week	Analytics: Topics in statistical modeling: basic concepts, experiment design, pitfalls
11. Week	Topics in statistical modeling (Con't), Regression
12. Week	Linear Models
13. Week	Exercises with Data Sets

14. Week	Case Study
15. Week	Discussion
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Project Management	MIS 331	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD						
Course objective	To teach fundamentals of project management						
Course Content	Project Management Processes, project software,Scheduling, project risk management						
References	1.Gray, C.F., E.W.Larson, Project Management, (2000) 1th edition, Mc Graw Hill., ISBN 0-07-116316-6. 2Berkun S. (2008). Making Things Happen: Mastering Project Management (Theory in Practice) Revised Edition, O'Reilly Media						
Learning outcomes	After taking this course students will be able to; understand what a project management means understand Project Management Processes understand leadership and project teams use project software conduct and manage a project						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Introduction to Project Management
2. Week	Project Life Cycle and Organization
3. Week	Project Management Processes
4. Week	Project Organization
5. Week	Leadership and Project Teams
6. Week	Project Activities
7. Week	Mid- term exam
8. Week	Scope of Project and Activity Relationships
9. Week	Scheduling
10. Week	Project Monitoring
11. Week	Project reports, forms and plans
12. Week	Project Risk Management
13. Week	Project Management Software
14. Week	Project Presentation
15. Week	Project Presentation
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

<b>Semester Works</b>	<b>Number</b>	<b>Contribution</b>
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	
3				X	
4					X
5			X		
6		X			
7			X		
8				X	
9			X		
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Information Systems Analysis and Design	MIS 312	Spring	3	0	0	3	5
Prerequisites	None						

Course Language	English
Course Type	Compulsory
Mode of Delivery	Face to face/Distance/Hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	
Course objective	To provide a foundation of system development from initial stages of information requirements analysis to ultimate activities involving systems design.
Course Content	The systems development environment, the sources of software, the information systems project management, systems planning and selection, system requirements determination, system requirements structuring: process modeling & conceptual data modeling, the human interface design, the database design, systems implementation and operation, object-oriented analysis and design, agile methodologies.
Learning outcomes	After taking this course students will be able to; understand and model business processes and organizational data analyze and structure information system requirements design input, output and databases adopt a project management methodology understand agile modeling

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	The Systems Development Environment
2. Week	The Sources of Software
3. Week	Managing the Information Systems Project
4. Week	Managing the Information Systems Project(Con't)
5. Week	Systems Planning & Selection
6. Week	Determining System Requirements
7. Week	Mid- term exam
8. Week	Structuring System Requirements: Process Modelling
9. Week	Structuring System Requirements: Process Modelling(Con't)
10. Week	Structuring System Requirements: Conceptual Data Modelling
11. Week	Structuring System Requirements: Conceptual Data Modelling(Con't)
12. Week	Designing the Human Interface
13. Week	Designing Databases
14. Week	Systems Implementation & Operation
15. Week	Agile Methodologies
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			

3		X			
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Decision Support Systems	MIS 322	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD						
Course objective	To teach concepts of foundations of decision making and decision support						
Course Content	the concept of decision support systems, decision making models, phases of the decision making process						
References	1. Turban E, Sharda R., Delen D. (2011) Decision Support and Business Intelligence Systems, Ninth Edition, Pearson. 2. Turban E, Sharda R., Delen D. (2014). Business Intelligence and Analytics: Systems for Decision Support, Tenth Edition, Pearson.						
Learning outcomes	After taking this course students will be able to; 1. understand the decision and decision making 2. understand DSS components and how they integrate 3. analyze business cases and solve business problems 4. apply analytical skills through the use of the software decision support tools 5. use and design spreadsheets for DSS modeling and solution						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to DSS
2. Week	Management Support Systems

3. Week	Decision Making Systems, Modelling and Support
4. Week	Decision Making Systems, Modelling and Support (Con't)
5. Week	Decision Support Systems, Modelling and Analysis
6. Week	Decision Support Systems, Modelling and Analysis (Con't)
7. Week	Mid- term exam
8. Week	Business Intelligence: Data Warehousing
9. Week	Business Intelligence: Data Mining
10. Week	Business Analytics and Visualization
11. Week	Case Application
12. Week	Case Application
13. Week	Intelligent Decision Support Systems
14. Week	Case Application
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			

Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2			X		
3			X		
4					X
5	X				
6					X
7		X			
8				X	
9					X
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Business Project Development	MIS 332	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS, PhD						

Course objective	to teach how to develop a business project
Course Content	business project terms, risk analysis, project budget analysis, development a business project
References	1. Creswell, John W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th ed. Thousand Oaks, CA: Sage Publications. 2. Fowler, J. (2014). Survey Research Methods. 5th ed. Thousand Oaks, CA: Sage, 3. Yin, R. K. (2014). Case Study Research: Design and Methods. 5th ed. Thousand Oaks, CA: Sage Publications.
Learning outcomes	After taking this course students will be able to; build project terms understand business idea and business case make industry risk analysis make project budget and analysis plan a business project

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
3. Week	Building project teams
4. Week	From business idea to business case
5. Week	Industry trends and competitive analysis
6. Week	Industry risk analysis
7. Week	Project budget and scheduling
8. Week	Mid- term exam
9. Week	Market assessment and forecasting
10. Week	Cash flow model
11. Week	Scenario model
12. Week	Business plan development
13. Week	Creating strategic narrative and preparing presentation for investors
14. Week	Case study
15. Week	Case study
16. Week	Discussion
17. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0

Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			
2				X	
3				X	
4					X
5			X		
6		X			
7			X		
8				X	
9			X		

10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Strategic Management	MIS 411	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/ distance learning/hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD.						
Course objective	to learn key concepts of Strategic Management						
Course Content	The Nature of Strategic Management The Business Vision and Mission Strategy Analysis and Choice Strategy Review, Evaluation and Control Corporate Governance						
References	Strategic Management, Fred David, International Edition. Y9						
Learning outcomes	After taking this course students will be able to; understand the nature of strategic management make the business vision and mission make strategy analysis and choice analyze Strategy Review, Evaluation and Control understand the concept of Corporate Governance						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction and General Overview
2. Week	The Nature of Strategic Management
3. Week	The Business Vision and Mission
4. Week	The External Assessment
5. Week	Strategy Analysis and Choice
6. Week	Strategy Analysis and Choice
7. Week	Mid- term exam

8. Week	Implementing Strategies: Managerial and Operational Issues
9. Week	Implementing Strategies: Marketing Issues
10. Week	Implementing Strategies: Finance/Accounting Issues
11. Week	Implementing Strategies: R&D Issues
12. Week	Implementing Strategies: MIS Issues
13. Week	Strategy Review, Evaluation and Control
14. Week	Corporate Governance
15. Week	Corporate Governance
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28

Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2			X		
3			X		
4				X	
5					X
6				X	
7				X	
8			X		
9			X		
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Information Technology and Law Ethics	MIS 421	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD.						
Course objective	to study the legal issues arising from information technology (IT), and the ethical implication of IT in society.						
Course Content	Privacy,Intellectual Property Issues,Contracts and Licenses , Computer Crime and Frauds, Ethical Issues						
References	1.Online resources including <a href="http://www.infosec.gov.hk">www.infosec.gov.hk</a> (Computer Crime), <a href="http://www.pcpd.org.hk">www.pcpd.org.hk</a> (Personal Data (Privacy) Ordinance), <a href="http://www.ipd.gov.hk">www.ipd.gov.hk</a>						

	(Copyright Ordinance), <a href="http://www.ogcio.gov.hk">www.ogcio.gov.hk</a> (Electronic Transaction Ordinance), <a href="http://www.hkcs.org.hk">www.hkcs.org.hk</a> (IT Professional: Code of Ethics) 2. DeCew, Judith Wagner, 1997, Pursuit of Privacy: Law, Ethics, and the Rise of Technology, Ithaca, NY: Cornell University Press.
Learning outcomes	After taking this course students will be able to; understand the concept of ethic in information technology understand privacy, intellectual property rights, contracts & licenses as well as common criminal issues understand the legal obligations of a computer professional understand computer ethics and the importance of professional codes of conduct derive and justify a personal position on moral and ethical matters related to computers in society

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Privacy
2. Week	Personal data protection principles
3. Week	General Data Protection Regulation (GDPR)
4. Week	Privacy considerations for clouds, mobile apps and big data
5. Week	Intellectual property rights, copyrights
6. Week	Patents, Trademarks, Designs
7. Week	Mid- term exam
8. Week	Contracts and Licenses
9. Week	On-line contracts, Software licenses, Management responsibilities and liabilities, Electronic transactions
10. Week	Computer Crime and Frauds
11. Week	Hacking and unauthorized use of computers, Control of obscene and indecent publications
12. Week	Computer virus and spamming, Jurisdiction issues in cyberspace
13. Week	Computer Ethics, Cyberstalking
14. Week	Employee monitoring, Professional responsibilities & practice and code of ethics
15. Week	Ethical considerations in artificial intelligence
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0

Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3			X		
4				X	
5			X		
6					X
7		X			
8				X	
9					X
10					X
11					X

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semestr e	Theory (hours/wee k)	Application (hours/wee k)	Laboratory (hours/wee k)	Nation al Credit	ECT S
Workplace Training	MIS 412	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face						
Learning and teaching strategies							
Instructor (s)							
Course objective	To gain work experience to the students						
Course Content							
References							
Learning outcomes	After taking this course students will be able to;						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	
2. Week	
3. Week	
4. Week	
5. Week	
6. Week	
7. Week	Mid- term exam
8. Week	
9. Week	
10. Week	
11. Week	
12. Week	

13. Week	
14. Week	
15. Week	
16. Week	Final Exam

**Form Vb (İngilizce): Assesment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x16)	16		
Laboratory			
Application			
Specific practical training	16	4	64
Field activities	16	3	48
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	16	40	640
Presentation / Seminar Preparation			
Project			
Homework assignment			
Midterms ( Study duration )			
Final Exam (Study duration)			
Total Workload			752
Total Workload/30 hours			25.07
ECTS			25.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2	X				
3				X	
4				X	
5					X
6					X
7			X		
8			X		
9				X	
10		X			
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Project	MIS 432	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	students present their projects which are related to their workplace training						
Course Content	Students' projects presentations						
References							
Learning outcomes	After taking this course students will be able to;						

**Form IVb (English): Subjects by weeks**

Weeks	Subjects
1. Week	Project Study
2. Week	Project Study

3. Week	Project Study
4. Week	Project Study
5. Week	Project Study
6. Week	Project Study
7. Week	Mid- term exam
8. Week	Project Study
9. Week	Project Study
10. Week	Project Study
11. Week	Project Study
12. Week	Project Study
13. Week	Project Study
14. Week	Project Study
15. Week	Project Study
16. Week	Final Exam

**Form Vb (İngilizce): Assesment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			

Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2	X				
3				X	
4				X	
5					X
6					X
7			X		
8			X		
9				X	
10		X			
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semestre	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Digital Sociology	MIS 251	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	To teach digital sociology terms						

Course Content	digital sociology terms, media technologies
References	Lupton, Deborah (2013) Digital Sociology. London and New York: Routledge. Marres, N. (2017) Digital Sociology: the reinvention of social research, Cambridge: Polity.
Learning outcomes	After taking this course students will be able to; understand what digital sociology means understand what media technologies means in sociology answer the question of Who is Digital Sociology's public explain the relationship between sociology and social media conduct a research about issues in Digital Sociology

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to digital sociology
2. Week	What is digital sociology?
3. Week	What makes media technologies social?
4. Week	How and why to be reflexive in the analysis of digital societies?
5. Week	Who is Digital Sociology's public?
6. Week	Introduction to Digital Sociology in Practice
7. Week	Mid- term exam
8. Week	How to do field research in digital societies?
9. Week	How to do sociology with social media?
10. Week	Group Work Session
11. Week	Issues in Digital Sociology + Student Presentations
12. Week	case study
13. Week	case study
14. Week	presentation
15. Week	presentation
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0

Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	4	56
Presentation / Seminar Preparation	7	3	21
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			151
Total Workload/30 hours			5.03
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2			X		
3				X	
4				X	
5			X		
6				X	
7			X		
8				X	
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
AI-Ally or Enemy in Management	MIS 253	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery (face to face, distance learning)	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Pinar AYYILDIZ, PhD						
Course objective	gaining an understanding of new technologies with a particular focus on what AI is, its main components as well as its place, role and function in management						
Course Content	AI, machine learning and “tiny machine learning”, deep learning, neural networks, “digital exhaust”, “digital footprints”, big data and their relationship alongside their potential interactions with businesses re. processes like strategic decision making, problem solving, remote work						
References	<ol style="list-style-type: none"> <li>Rose, D. (2018). Artificial Intelligence for Business: What You Need to Know about Machine Learning and Neural Networks. Chicago Lakeshore Press.</li> <li>Yao, M. (2018) Applied Artificial Intelligence: A Handbook for Business Leaders. www.appliedaibook.com</li> <li>Finlay, S. (2018). Artificial Intelligence and Machine Learning for Business: A No-Nonsense Guide to Data Driven Technologies. 3rd Ed. Relativistic.</li> </ol>						
Learning outcomes	<p>After taking this course, students will be able to;</p> <ol style="list-style-type: none"> <li>be more familiar with the following terms: AI, machine learning, deep learning, neural networks, big data</li> <li>related concepts: innovation, automation, transformation, 21st century businesses and AI</li> <li>inquire into the potential role of AI in possible job losses</li> <li>question the ethical side of integrating AI into companies via thinking about issues such as empathy, hyperpersonalized vs. dehumanized approaches in businesses</li> <li>speculate on the future of business through making meaningful connections to AI and elements of AI</li> </ol>						

**Form IVb (English): Subjects by weeks**

Weeks	Subjects
1. Week	Definitions of AI, Machine Learning and Neural Networks
2. Week	What is Machine Intelligence and why to use it in Business?

3. Week	The relationship between Big Data and Machine Learning
4. Week	The Promises of AI (innovation, transformation, opportunities)
5. Week	The Challenges of AI (ethics, laws, obstacles)
6. Week	Using AI in an “intelligent” fashion in business
7. Week	Mid- term exam
8. Week	Still Indispensable “human” in Implementing AI Technologies (networks, talent management, critical investments)
9. Week	Robotics in Businesses
10. Week	Natural Language Processing: Applications for Machine Learning
11. Week	Best Approaches to AI Usage for Companies: Learning and Turning Points
12. Week	Strategic Advantages of AI for Business
13. Week	Disadvantages of AI for Business
14. Week	Speculating on Future (discussions and presentations to evaluate the impact of AI on business and society)
15. Week	Speculating on Future (discussions and presentations to evaluate the impact of AI on business and society)
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form Vİb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			

Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation	7	3	21
Project			
Homework assignment	14	3	42
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			151
Total Workload/30 hours			5.03
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3					X
4					X
5			X		
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semestre	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Advance Office Programs	MIS 255	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						

Course objective	to teach advanced skills for office programs
Course Content	office programs basics, styles and outlines, merging and comparing documents, Onenote, Share point
References	Winston W. (2019). Microsoft Excel 2019 Data Analysis and Business Modeling (Business Skills) 6th Edition, Microsoft Press. <b><u>Guilmette A. (2020). Workflow Automation with Microsoft Power Automate: Achieve digital transformation through business automation with minimal coding. Packt Publishing</u></b>
Learning outcomes	After taking this course students will be able to; learn basics of microsoft office use MS word use Excel effectively for data analysis use PowerPoint effectively or presentations write codes by using MS office programs

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	Data Collection and Management
3. Week	Office Programs
4. Week	Word
5. Week	Word (Con't)
6. Week	Excel
7. Week	Mid- term exam
8. Week	Excel (Con't)
9. Week	PowerPoint
10. Week	PowerPoint (Con't)
11. Week	Publisher
12. Week	Publisher(Con't)
13. Week	Communication
14. Week	Communication(Con't)
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0

Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2		X			
3				X	
4				X	
5		X			
6			X		
7		X			
8		X			
9				X	
10		X			

11			X		
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1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

	Semestre	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)
257	Spring	3	0	0

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ulsory

to face/ distance learning/hybrid

ring, discussion, report preparation and submission.

an AKKAS, PhD

At the end of the course, students will be able to understand basic financial concepts and theories, gain the ability to interpret financial information, identify the nature and classification of accounting, accounting users, principles and concepts of accounting, financial statement, balance sheet, journal and ledger entry, trial balance, period-end closing procedures, accounting cycle, set financial statement, period-end closing procedures of cash account, cash account control, bank transactions control, bank reconciliation, marketable securities.

Textbook: Weyburn, Harrison and Bamber, Accounting, 6th edition, Prentice Hall, 2005, 0-13-124700-X.

Supplementary: Weyburn and Meigs, Bettner and Whittington, Accounting , The Basis For Business Decisions, Tenth Edition , Mc Graw Hill.

Supplementary: Ghandt, Kiesko and Kimmel, Accounting Principles, Fifth edition, Wiley,1999,

Supplementary: An Sevilengül, Genel Muhasebe,Gazi kitabevi

After taking this course students will be able to;

At the end of the course student learn fundamental accounting concepts,

Financial statement,

Journal and ledger entry,

Determine accounting equation, earnings and costs

Identify the accounting cycle,

Complete period-end closing procedures

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Definition of accounting and accounting users
2. Week	Principles and concepts of accounting
3. Week	Financial statement
4. Week	Accounting equation
5. Week	Journal and ledger entry
6. Week	Accounting equation, earnings and costs
7. Week	Midterm exam
8. Week	General ledger trial balance
9. Week	Period-end closing procedures
10. Week	Period-end closing procedures of cash account and cash account control
11. Week	Bank reconciliation and control

12. Week	Marketable securities and period-end closing procedures
13. Week	Assets and discounting of assets
14. Week	Uncollectible receivables, write back methods, charging of the discounting assets, liability accounts
15. Week	General evaluation
16. Week	Final exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%5
Laboratory	0	%0
Application	0	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	1	%15
Presentation	0	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%30
Final Exam	1	%50
Total	17	%100
Contribution of semester Works to success points	16	%50
Contribution of final exam to success points	1	%50
Total	17	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
Study Hours Out of Class (Preliminary work, reinforcement, preparation for the exams)	14	4	56
Presentation / Seminar Preparation			
Project			
Homework assignment	1	10	10
Midterms ( Study duration )	1	15	15
Final Exam (Study duration)	1	27	27
Total Workload			150
Total Workload/30 hours			5.00
ECTS			5

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2				X	
3					X
4	X				
5		X			
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Research Methods	MIS 252	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	to teach a scientific research basics						
Course Content	framework of a hypotheses testing, research designs, basic statistical techniques, data collection and data analysis						
References	Saunders, M., Lewis, P. & Thornhill, A. (2012). Research Methods for Business Students, Prentice Hall Creswell J. (2017). Research Design: Qualitative, Quantitative and Mixed Methods Approaches 4th Edition, SAGE Publications, Inc.						
Learning outcomes	After taking this course students will be able to; understand a scientific process design a research understand how statistical techniques are used in a research have a knowledge about data collection methods analysis data						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Introduction to research methods
2. Week	Scientific research process
3. Week	Theoretical framework and hypotheses
4. Week	Research design
5. Week	Measurement of variables
6. Week	Data collection methods
7. Week	Mid- term exam
8. Week	Secondary data and observation
9. Week	Data collection methods - Survey
10. Week	Data collection methods - Experiment
11. Week	Sampling methods
12. Week	Basics of statistics and statistical tests
13. Week	Data analysis and evaluation of results
14. Week	Data analysis and evaluation of results
15. Week	SPSS
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

<b>Semester Works</b>	<b>Number</b>	<b>Contribution</b>
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	4	56
Presentation / Seminar Preparation	7	1	7
Project			
Homework assignment	14	3	42
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			151
Total Workload/30 hours			5.03
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES- PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8			X		
9					X
10		X			
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semestre	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Technology Management and Innovation	MIS 254	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						

Mode of Delivery	Face to face/ Distance Learning / Hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	Handan AKKAS, PhD.
Course objective	To comprehend Technology Management and Innovation
Course Content	Innovation:what and why? Developing an innovation strategy Sources of innovation Innovation networks Creating new products and services
References	LeBlanc, L. J., Nash, R., Gallagher, D., Gonda, K., & Kakizaki, F. (1997). A comparison of US and Japanese technology management and innovation. <i>International Journal of Technology Management</i> , 13(5-6), 601-614.
Learning outcomes	After taking this course students will be able to; develop an innovation strategy analyse sources of innovation create innovation networks understand creating new products and services understand decision making under certainty

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	Innovation:what and why?
3. Week	Innovation as a core business process
4. Week	Context:building the innovative organization
5. Week	Developing an innovation strategy
6. Week	Sources of innovation
7. Week	Mid- term exam
8. Week	Innovations
9. Week	Innovation networks
10. Week	Decision making under certainty
11. Week	Building the innovation case
12. Week	Creating new products and services
13. Week	Exploiting open innovation and collaboration
14. Week	Exploiting entrepreneurship and new ventures
15. Week	Presentation of case studies

16. Week	Final Exam
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**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation	7	1	7
Project			
Homework assignment	14	4	56
Midterms ( Study duration )	1	1	1
Final Exam (Study duration)	1	2	2
Total Workload			150
Total Workload/30 hours			5.00
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			

2			X		
3	X				
4				X	
5				X	
6		X			
7				X	
8				X	
9			X		
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semestr e	Theory (hours/wee k)	Application (hours/wee k)	Laboratory (hours/wee k)	Nation al Credit	ECT S
Operation Research	MIS 256	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cigdem TOPCU GULOKSUZ, PhD						
Course objective	provide advanced operations research tools for decision making in industrial systems.						
Course Content	Basic concepts in integer programming, methods for solving integer programming problems, Introduction to nonlinear programming, Convex and concave functions, local extremum, Lagrangian multipliers -Kuhn-Tucker conditions						
References	Winston W.L. (1994). Introduction to Operations Research, Applications and Applications, 3rd edition, Duxbury Press. H. Taha H. (1995), Operations Research, McGraw Hill, 7th edition, 2003. F.S. Hillier, G.J. Lieberman, Introduction to Operations Research, McGraw Hill, 1995.						
Learning outcomes	After taking this course students will be able to; Building a model for integer, mixed integer and nonlinear programming problems Explaining the problems arising in industrial systems with integer, mixed integer and nonlinear programming problems Solving integer, mixed integer and nonlinear programming problems Interpreting the results Discussing on improving the industrial systems productivity						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Basic concepts in integer programming and examples for building a model- capital budgeting
2. Week	Fixed charge problems
3. Week	Facility location problems
4. Week	Set covering problems
5. Week	Expressing if-then constraints
6. Week	Methods for solving integer programming problems, branch and bound algorithm
7. Week	Mid- term exam
8. Week	Methods for solving integer programming problems, branch and bound algorithm (Con't)
9. Week	Introduction to nonlinear programming
10. Week	Convex and concave functions, local extremum
11. Week	Convex and concave functions, local extremum (Con't)
12. Week	Constrained nonlinear programming problems: Lagrangian multipliers
13. Week	Constrained nonlinear programming problems: Lagrangian multipliers
14. Week	Khun-Tucker conditions
15. Week	Discussion
16. Week	Final Exam

#### **Form Vb (İngilizce): Assesment Method**

<b>Semester Works</b>	<b>Number</b>	<b>Contribution</b>
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8			X		
9					X
10		X			
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Simulation and Modelling	MIS 351	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						

Mode of Delivery	Face to face/Distance/Hybrid
Learning and teaching strategies	Lecturing, discussion, and submission.
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members
Course objective	to introduce some fundamental techniques in M&S and build an understanding of the systems and tools of this field.
Course Content	Concepts of System, Model, and Simulation, Monte Carlo simulation, Generate Random Numbers , Verification techniques, Calibration and validation of models , Input/Output Analysis
References	Banks, J. 1998. Handbook of Simulation:Principles, Methodology, Advances, Application, and Practice, Wiley. Banks, J. 1998. Handbook of Simulation:Principles, Methodology, Advances, Application, and Practice, Wiley. Banks, J., Carson II, J.S., Nelson, B.L., Nicol ,D.M. 2004. Discrete-Event System Simulation(Fourth Edition), Prentice Hall.
Learning outcomes	After taking this course students will be able to; learn the basic simulation methods analyze data collected from real world and build input models for simulation studies conduct various simulation studies to investigate the behaviors of complex systems learn generating random variates make Input Modeling,Validation and Verification, Output Analysis

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Concepts of System, Model, and Simulation
2. Week	The purpose of a simulation, its advantages and disadvantages, application areas, types of simulation
3. Week	Monte Carlo simulation, Continuous system simulation, Discrete event simulation, Simulation clock, Time advance mechanisms
4. Week	Monte Carlo simulation, Continuous system simulation, Discrete event simulation, Simulation clock, Time advance mechanisms
5. Week	Random Numbers, Random Number Generators
6. Week	Middle-square method, LCG, Inverse Transform, Convolution, Composition, Acceptance-rejection,
7. Week	Mid- term exam
8. Week	Middle-square method, LCG, Inverse Transform, Convolution, Composition, Acceptance-rejection (Con't)
9. Week	Generate Random Numbers from some discrete probability distribution
10. Week	Generate Random Numbers from some continuous probability distributions
11. Week	Data collection, Identifying the distribution with data, MLE, Goodness-of-fit tests (Chi-Square Test, Kolmogorov-Smirnov test), Arrival process

12. Week	Input Modeling
13. Week	Basic concepts, Verification techniques, Calibration and validation of models
14. Week	Output Modeling
15. Week	Discussion
16. Week	Final Exam

**Form Vb (İngilizce): Assesment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2					X
3			X		
4					X
5		X			
6					X
7		X			
8	X				
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Organizational Behavior	MIS 353	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Handan AKKAS, PhD						
Course objective	to teach fundamentals of organizational behavior						
Course Content	personality, motivation, decision making, leadership, Power and politics, Conflict management						
References	Meredith, J.R., S.J.Mantel. (1995). Project Management: A Managerial Approach, 3rd ed. Wiley, ISBN 0-471-01626-8. <a href="#">Robbins S.</a> , <a href="#">Judge T.</a> (2017) Essentials of Organizational Behavior 14th Edition, Pearson						
Learning outcomes	After taking this course students will be able to; understand organizational behavior understand the concept of personality understand the concept of motivation have a knowledge of decision making strategies explain the leadership in an organization						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Introduction to organizational behavior
2. Week	Personality
3. Week	Work values and attitudes
4. Week	Perception and learning
5. Week	Motivation
6. Week	Motivation (Con't)
7. Week	Mid- term exam
8. Week	Work groups
9. Week	Group effectiveness
10. Week	Decision making
11. Week	Decision making (Con't)
12. Week	Leadership
13. Week	Power and politics
14. Week	Conflict management
15. Week	Case Study
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

<b>Semester Works</b>	<b>Number</b>	<b>Contribution</b>
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2			X		
3			X		
4				X	
5					X
6				X	
7				X	
8			X		
9			X		
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
International Business and Information Technologies	MIS 355	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						

Mode of Delivery	Face to face/ distance learning/hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	Handan AKKAS, PhD.
Course objective	to give key principles about International Business and Information Technologies
Course Content	Patterns of Technological Change Technology Creation – R&D Management Technology Commercialization Technology transfer Managing High-Technology, Innovation and Internalization
References	Karush G. , Samii M., Russow L. (2004). International Business and Information Technology: Interaction and Transformation in the Global Economy 1st Edition, Routledge . Dornberger, Rolf. (Editor)(2018). Business Information Systems and Technology 4.0, Springer.
	After taking this course students will be able to; analyse Patterns of Technological Change obtain Technology Creation – R&D Management obtain Technology Commercialization make Technology Transfer manage High-Technology, Innovation and Internalization

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	Patterns of Technological Change
3. Week	Technology STechnology planning – foresight strategy
4. Week	Case study
5. Week	Technology Creation – R&D Management
6. Week	Open Innovation
7. Week	Mid- term exam
8. Week	Technology Commercialization
9. Week	Technology transfer
10. Week	Cross-functional linkages
11. Week	TM tools
12. Week	TM and design thinking:ethics and sustainability
13. Week	Managing High-Technology, Innovation and Internalization
14. Week	Case study
15. Week	Case study

16. Week	Final Exam
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**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation	7	1	7
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			151
Total Workload/30 hours			5.03
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1		X			

2				X		
3				X		
4					X	
5						X
6				X		
7						X
8					X	
9				X		
10					X	
11					X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Statistical Quality Control	MIS 357	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cigdem TOPCU GULOKSUZ, PhD						
Course objective	to teach basics of quality management and quality control						
Course Content	quality and quality characteristics, concepts, frame of total quality management, statistical quality control techniques, quality control graphs process control, loss function, Taguchi approach.						
References	1.Montgomery, D.C. 2002. Introduction to Statistical Quality Control. John Wiley and Sons 2. Taguchi, G., Elsayed, A.E. and Hsiang, T.C. 1989. Quality engineering in production systems. McGraw-Hill, 173 p., New York.						
Learning outcomes	After taking this course students will be able to; learn the concept of quality. apply statistical quality control within the TQM philosophy. recognize the concepts of competitive tools in businesses. draw control charts of quantitative and qualitative data for process control. recognize quality assurance systems.						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	The concepts of Quality

2. Week	Quality Control
3. Week	6-sigma methodology
4. Week	Comparisons of Total Quality Management and 6-sigma methodology
5. Week	Statistical quality control
6. Week	Control Charts
7. Week	Mid- term exam
8. Week	Control Charts (Con't)
9. Week	Case Study
10. Week	Acceptance sampling
11. Week	Acceptance sampling (Con't)
12. Week	Process Control
13. Week	Process Control (Con't)
14. Week	Loss function, quality assessment and Taguchi approach
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			

Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

### Form VIIb (English): THE COURSE LEARNING OUTCOMES- PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8			X		
9					X
10		X			
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Cyber Security	MIS 359	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						

Course objective	To introduce current state of the art, historical background, basic terminology and essential technologies in cyber security domain To elucidate legal, ethical, political and economic influences of cyber and information war
Course Content	Basic concepts in cyber space and security. Cybercrime, IT law, computer law and cyber law. Computer forensics. Information security and assurance. Computer and network security. Cyber Warfare. International standards on cyber security.
References	Cryptography and Network Security: Principles and Practice, William Stallings, Prentice Hall. Computer Forensics and Cyber Crime, Marjie T. Britz, Pearson. Defending Your Digital Assets Against Hackers, Crackers Spies and Thieves, Randall K. Nicolas, Daniel J. Ryan, Julie J.C.H. Ryan. Cyber War: The Next Threat to National Security and What to Do About It, Richard O. Clarke, Harper Collins Cybersecurity and Cyberwar: What Everyone Needs to Know, P.W. Singer, Allan Freidman, Oxford University Press.
Learning outcomes	After taking this course students will be able to; Express the concepts in cyber security domain. Discuss the security technologies in cyber space. Describe the involvement of IT law, international standards and counter measures in cyber security Recall basic knowledge of the computer crime and network security

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction: the cyber security challenge
2. Week	Technology and policy background <ul style="list-style-type: none"> <li>- History of the Internet</li> <li>- National and International Legal regulations</li> <li>- Owner of the cyber space</li> </ul>
3. Week	Cyber crime -1 <ul style="list-style-type: none"> <li>- Cyber crime</li> <li>- Traditional computer crime: Early hackers</li> <li>- Cotemporary computer crime</li> <li>- Identity theft and identity fraud.</li> </ul>
4. Week	Cyber crime -2 <ul style="list-style-type: none"> <li>- Terrorism and organized crime in cyber space</li> <li>- Governmental and legal issues.</li> </ul>
5. Week	IT law, Cyber law, Computer law-1
6. Week	IT law, Cyber law, Computer law-2
7. Week	Mid- term exam
8. Week	Computer Forensics Terminology Computer related evidence Searching and seizing Evidence processing and report preparation
9. Week	Information security and assurance Risk management

	Evaluation and mitigation Security education and awareness training. Personnel security Physical security
10. Week	Computer and network security-1 Cryptology Data integrity Mutual trust and user authentication Application security (email, web, IP-sec) Security on network (VPN, VLAN)
11. Week	Computer and network security-2 Attack types and security risks Counter measures Principles and Practical security applications
12. Week	Cyber Warfare
13. Week	ISO/IEC-27032 Cyber security guidelines
14. Week	Assignment reports and presentations
15. Week	Contemporary topics in cyber security.
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	0	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment / Quizzes	4	%10
Presentation	1	%10
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%35
Final Exam	1	%45
Total	20	%100
Contribution of semester Works to success points	19	%55
Contribution of final exam to success points	1	%45
Total	20	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			

Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation	1	15	15
Project			
Homework assignment / Quizzes	4	5	20
Midterms ( Study duration )	1	10	10
Final Exam (Study duration)	1	20	20
Total Workload			149
Total Workload/30 hours			4.96
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2			X		
3			X		
4			X		
5	X				
6	X				
7		X			
8				X	
9					X
10	X				
11					X

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Risk Analysis	MIS 352	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/distance/hybrid						
Learning and teaching strategies	Lecturing, discussion, problem solving						
Instructor (s)	Cigdem TOPCU GULOXSUZ, PhD						
Course objective	Teaching statistical risk analysis approaches for financial systems and products.						

Course Content	Financial products, options and derivatives, financial risk measurement, risk capital, credit risk, investment risk, financial risk management and statistical techniques, financial markets, risk measurement and risk minimization, stochastic analysis and financial applications.
References	1.Kaas, R., Gooaverts, M., Dhaene, J., Denuit, M. (2001). Modern Actuarial Risk Theory. Kluwer Academic Publishers 2.Daykin, C.D., Pentikainen, T., Pesonen, M. (1994). Practical Risk Theory for Actuaries. Chapman-Hall
Learning outcomes	After taking this course students will be able to; know statistical descriptions and solutions for financial products and decisions, teaching techniques for the concepts and verifying the optimality. have information about the types of risks. know how to verify the optimality apply risk measurement skills. know how to make investment decisions

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Concepts and definitions of financial systems and products , their functions
2. Week	Financial evaluation, fundamentals of financial mathematics
3. Week	Investment, profit and risk evaluation
4. Week	Financial products and financial derivatives
5. Week	Short, mid and long run investments, Financial equipments
6. Week	Mathematical and statistical analysis in finance, discrete stochastic processes
7. Week	Mid- term exam
8. Week	Mathematical and statistical analysis in finance, discrete stochastic processes
9. Week	Martingale theory, Black-Scholes model and its uses
10. Week	Financial market, market risk, values of stock market
11. Week	Interest theory, swamps, optimal evaluation rule and risk
12. Week	Individual financial decisions under uncertainty, portfolio management
13. Week	Sectoral financial decisions under uncertainty; optimal management like existence, investment
14. Week	Volatility and risk management, values under risk (VAR)
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assesment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0

Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Work Load
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10				X	

11			X		
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1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Cloud Computing	MIS 354	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						
Course objective	to gain the ability of using appropriate knowledge, methods and techniques to a practical cloud computing case in a project setting.						
Course Content	Cloud computing characteristics, layers, application platform as a service, infrastructure models, virtualization, business model and adoption of cloud computing, cloud data management, security, enterprise data and cloud interaction.						
References	The Cloud at Your Service, Manning Publications Co., Jothy Rosenberg, Arthur Mateos, ISBN: 9781935182528 <a href="#">Erl T.</a> , <a href="#">Puttini R.</a> , <a href="#">Zaigham Mahmood Z.</a> (2013). Cloud Computing: Concepts, Technology & Architecture., Prentice Hall						
Learning outcomes	After taking this course students will be able to; identify technical (e.g., architecture, security) as well as business challenges with implementing CC prepare a business case for CC along with business and technical imperatives facilitate executive IT managers in decision making regarding why/what/how to go about CC. follow up future trends of CC and its impacts from a multi-disciplinary perspective. grasp importance of teamwork, motivation and mentoring						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to Cloud Computing and Definitions
2. Week	Popular Cloud Stacks and Use Cases
3. Week	Benefits, Risks, and Challenges of Cloud Computing
4. Week	Topics in Cloud Security

5. Week	Cloud Infrastructure
6. Week	Cloud Management and Cloud Software Deployment
7. Week	Mid- term exam
8. Week	Virtualization (CPU, Memory, I/O)
9. Week	Software Defined Storage (SDS)
10. Week	Cloud Storage
11. Week	Cloud Databases (HBase, MongoDB, Cassandra, DynamoDB)
12. Week	Programming Models
13. Week	Distributed Programming for the Cloud
14. Week	Review
15. Week	Review
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			

<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4					X
5		X			
6					X
7		X			
8	X				
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Statistical Machine Learning	MIS 356	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cigdem TOPCU GULOKSUZ,PhD						
Course objective	To teach statistical Machine Learning techniques						

Course Content	Training and test data sets concept, accuracy, classification, tree based methods, support vector machines, unsupervised learning
References	James G., Witten D., Hastie T., Tibshirani R. (2013). An Introduction to Statistical Learning with Applications in R. 7th Edition, Springer Hastie T., Tibshirani R., Friedman J. (2009). The Elements of Statistical Learning: Data Mining, Inference, and Prediction. 2nd Edition, Springer.
Learning outcomes	After taking this course students will be able to; 1. understand Statistical Machine Learning concepts and the accuracy of a model 2. know how to work classification methods 3. know tree base methods 4. understand support vector machines concepts 5. know the concepts of unsupervised learning

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to statistical Machine Learning concepts and notation
2. Week	Training and test data sets, overall accuracy
3. Week	Overview of classification
4. Week	Linear Models, Regression Models
5. Week	Linear Discriminant Analysis
6. Week	Comparison of classification methods
7. Week	Mid- term exam
8. Week	Tree Based Methods
9. Week	Tree Based Methods (Con't)
10. Week	Support Vector Machines
11. Week	Support Vector Machines(Con't)
12. Week	Unsupervised Learning
13. Week	Unsupervised Learning(Con't)
14. Week	Case Study
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0

Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Entrepreneurship and Information Technologies	MIS 358	Spring	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/ Distance Learning / Hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Handan AKKAS, PhD.						
Course objective	to provide key concepts about Entrepreneurship and Information Technologies						
Course Content	Digital Divide & Segregated Online Spaces Tech and Diversity in the Corporate World Health Tech & Assistive Tech Algorithmic Oppression Activism and Ethical Questions						
Mode of Delivery	In class / Distance / Hybrid						
References	Sutherland, Tonia. Making a Killing: On Race, Ritual, and (Re) Membering in Digital Culture Preservation, Digital Technology & Culture, 2017, Vol.46(1), pp.32-407 "Tech Ethics Issues We Should All Be Thinking About In 2019"						
Learning outcomes	After taking this course students will be able to; 1. Analyse Digital Divide & Segregated Online Spaces 2. Observe Tech and Diversity in the Corporate World 3. Understand Health Tech & Assistive Tech 4. Plan Algorithmic Oppression 5. Realise Activism and Ethical Questions						

**Form IVb (English): Subjects by weeks**

Weeks	Subjects
1. Week	Early Internet Studies on Online Gaming
2. Week	Digital Divide & Segregated Online Spaces
3. Week	How do the Humanities and the Social Scientists Engage in Tech?
4. Week	Tech and Diversity in the Corporate World
5. Week	Health Tech & Assistive Tech
6. Week	Algorithmic Oppression
7. Week	Mid- term exam

8. Week	Entrepreneurial Journey and International Entrepreneurship
9. Week	Indigenous Nations & Rural Communities Building Tech
10. Week	Activism and Ethical Questions
11. Week	Pitching Ideas: Raising Capital & Being an Entrepreneur
12. Week	Project presentations
13. Week	Project presentations
14. Week	Project presentations
15. Week	Project presentations
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28

Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3			X		
4				X	
5					X
6			X		
7				X	
8				X	
9			X		
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Data Mining and Applications	MIS 451	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance /Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cigdem TOPCU GULOKSUZ, PhD						
Course objective	To teach what Data Mining is and some application of Data Mining						
Course Content	Introduction to Python programming basics, preparation data to analyze, advanced data analytics techniques						
References	1.Tan P., Steinbach M., Karpatne A., Kumar V. (2020). Introduction to Data Mining, 2nd Edition, Pearson.						

	2.Kantardzic, M. (2003). Data Mining – Concepts, Models, Methods and Algorithms, Wiley, ISBN:0-471-22852-4.
Learning outcomes	After taking this course students will be able to; 1.understand the importance and ways of data preprocessing 2. know Python program language basics 3. understand the discretization and reduction of data 4.use Python for data mining 5. use classification techniques for data mining applications

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	What is Data Mining
2. Week	Working with data
3. Week	Introduction Python language
4. Week	Python language basics
5. Week	Preparing data
6. Week	Data Cleansing, transformation
7. Week	Mid- term exam
8. Week	Data Reduction
9. Week	Classification Techniques
10. Week	Classification Techniques (Con't)
11. Week	Case Study
12. Week	Case Study
13. Week	Advanced Techniques
14. Week	Advanced Techniques (Con't)
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40

Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory	Application	Laboratory	National	ECTS
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			(hours/week)	(hours/week)	(hours/week)	Credit	
Time Series Analysis	MIS 453	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Cigdem TOPCU GULOKSUZ,PhD						
Course objective	Building the fundamentals for future undergraduate and graduate courses, analysis of time series data, modeling and statistical inference.						
Course Content	Basic Definitions and Concepts; Transformations; Deterministic Trends and Forecasting Models; Decomposition and Exponential Smoothing Methods; Stable Process Models, ARIMA, seasonal ARIMA Models and Forecasting.						
References	<ol style="list-style-type: none"> <li>1. Shumway R.H., Stoffer D.S. Time Series Analysis and Its Applications with R Examples. Third Edition, Springer, 2011.</li> <li>2. Montgomery D.C, Jennings C.L., Kulahci M. Introduction to Time Series Analysis and Forecasting. John Wiley and Sons, 2008.</li> <li>3.Fuller, Wayne.Introduction to Statistical Time Series , Wiley, 1996.</li> </ol>						
Learning outcomes	<p>After taking this course students will be able to;</p> <ul style="list-style-type: none"> <li>model and forecast on time series.</li> <li>know estimation, prediction and forecasting concepts and hardware to provide the necessary statistics about them.</li> <li>know basic fundamentals of time series, modeling and forecasting.</li> <li>have skills of modeling time series.</li> <li>make predictions using a statistical software package.</li> </ul>						

**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Introduction to basic concepts of time series and application fields
2. Week	Stationarity
3. Week	Autocorrelation function (ACF) and its properties
4. Week	MA series and its properties
5. Week	Partial Autocorrelation function (PACF) and its properties
6. Week	Autoregressive (AR) series
7. Week	Mid- term exam
8. Week	Computations of ACF and PACF function for AR series
9. Week	Yule-Walker equations for AR series

10. Week	Forecasting, forecast error and confidence intervals for forecasts
11. Week	ARMA and Seasonal series, model identifications, AIC and SBC statistics
12. Week	Parameter estimation (OLS and Yule-Walker) and some properties of the estimators
13. Week	Nonstationary time series, Unit root series, differencing
14. Week	Unit Root tests (Dickey-Fuller method)
15. Week	Discussion
Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2

Total Workload		144
Total Workload/30 hours		4.88
ECTS		5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1					X
2		X			
3		X			
4				X	
5	X				
6					X
7		X			
8				X	
9					X
10				X	
11			X		

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Blockchain Technologies	MIS 455	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						
Course objective	to explore the blockchain technology's potential, blockchain applications in the financial sector.						
Course Content	Money, Ledgers, Bitcoin, Cryptography, Blockchain Economics						
References	1. Schar F., Berentsen A. (2020) Bitcoin, Blockchain, and Cryptoassets: A Comprehensive Introduction, The MIT Press. 2. Warburg B., Serres T., Wagner B. (2019) Basics of Blockchain: A guide for building literacy in the economics, technology, and business of blockchain, 1st edition, Animal Ventures LLC.						

Learning outcomes	After taking this course students will be able to; understand, money, ledgers and bitcoin concepts understand blockchain basics use Cryptography in business applications distinguish Financial System Challenges and Opportunities understand Blockchain Economics
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**Form IVb (English): Subjects by weeks**

Weeks	Subjects
1. Week	Introduction
2. Week	Money, Ledgers, and Bitcoin
3. Week	Blockchain Basics and Cryptography
4. Week	Blockchain Basics and Consensus
5. Week	Blockchain Basics and Transactions, UTXO
6. Week	Technical Challenges
7. Week	Mid- term exam
8. Week	Public Policy
9. Week	Financial System Challenges and Opportunities
10. Week	Blockchain Economics
11. Week	Payments
12. Week	Payments (Con't)
13. Week	Primary Markets, ICOs, and Venture Capital
15. Week	Trade Finance and Supply Chain
16. Week	Discussion
17. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0

Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3				X	
4				X	
5			X		
6			X		
7				X	
8			X		
9					X
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Supply Chain Management	MIS 457	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/ distance learning/ hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD						
Course objective	To understand basic concepts of Supply Chain Management						
Course Content	Logistics of Supply Chains Global Dimensions of Supply Chains Demand Management Order Management and Customer Service Supply Chain Network Analysis						
References	International Business: Strategy, Management, and the New Realities Tamer Cavusgil, Gary Knight John Riesenberger, Pearson Publications						
Learning outcomes	After taking this course students will be able to; 1. Manage Logistics of Supply Chains 2. Comprehend Global Dimensions of Supply Chains 3. Control demand management 4. manage supply chain 5. Supply Chain Network Analysis						

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Supply Chain Management: An Overview
2. Week	Logistics of Supply Chains
3. Week	Global Dimensions of Supply Chains
4. Week	Supply Chain Relationships
5. Week	Supply Chain Technology- Managing Information Flows
6. Week	Demand Management
7. Week	Mid- term exam
8. Week	Order Management and Customer Service
9. Week	Managing Inventory in Supply Chain I

10. Week	Managing Inventory in Supply Chain II
11. Week	Transportation - Managing the Flow of the Supply Chain
12. Week	Transportation - Managing the Flow of the Supply Chain
13. Week	Distribution - Managing Fulfillment Operations
14. Week	Supply Chain Network Analysis
15. Week	Supply Chain Network Design
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144

Total Workload/30 hours		4.88
ECTS		5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3				X	
4				X	
5			X		
6			X		
7				X	
8			X		
9					X
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Geographic Information Systems	MIS 459	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						
Course objective	To provide the principles of geographical information systems (GIS) and ability to use a GIS software and to apply in projects						
Course Content	GIS Applied Fields, GIS Technologies, Data Models, Geographical Data in Computer, Basic Map Information, Data Display, Geographical Analysis, Data Conversions, GIS Applications.						
References	Campbell J., Shin M. (2011). Essentials of Geographic Information Systems, Saylor Foundation Burrough P.A, McDonnell R. A., Lloyd C.D. (2015). Principles of Geographical Information Systems 3rd Edition, Oxford University Press						

Learning outcomes	After taking this course students will be able to; learn basic terms of Geographic Information Systems understand the importance of Geographic Information Systems prepare GIS related projects and reports individually or as a group perform analysis and evaluate the results for GIS applications use a GIS software for project purposes
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#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	The concepts of spatial data and space, definitions related GIS, basic components of GIS, various disciplines related GIS
2. Week	Applications of GIS, historical background, examples from Turkey and world
3. Week	Types of data, spatial (vector and raster data) and non-spatial data (attribute data)
4. Week	Geographical positioning, coordinate systems, three-dimensional systems
5. Week	Map projections, the concept of scale, distortions, the selection of suitable map projection
6. Week	Data entry using existing graphic or images, the creation of database
7. Week	Mid- term exam
8. Week	The production of thematic maps, the derivation data from the data
9. Week	Making queries
10. Week	Analyzing layer properties, introduction of application tools and menu, introduction of fundamental analysis
11. Week	The fundamental analyses
12. Week	The integrated analysis, correction, classification, generalization
13. Week	Producing maps, outputs, reports and charts, creation of layout
14. Week	Case Study
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40



				(hours/week)			
Artificial Intelligence Applications for Management	MIS 461	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Management, Organization and Organizational Behavior Division Faculty Members						
Course objective	to have some ideas about AI applications in business						
Course Content	Artificial intelligence terms, robotics, machine learning, block chain technologies,						
References	1.McKinsey (2018) AI, automation, and the future of work: ten things to solve for. McKinsey & Company. 2.Chou, T. (2016). Precision: Principles, Practices and Solutions for the Internet of Things. Basic Books. CrowdStory. 3.Daugherty, P. R., & Wilson, H. J. (2018). Human+ Machine: Reimagining Work in the Age of AI. Harvard Business Press.						
Learning outcomes	After taking this course students will be able to; know artificial intelligence terms understand AI related technologies have some knowledge about how AI is used in industries think of different ways of utilizing them in business prepare themselves to the AI driven future						

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction to Artificial Intelligence
2. Week	Introduction to other technologies e.g. robotics, machine learning, block chain etc.
3. Week	Introduction to other technologies e.g. robotics, machine learning, block chain etc. (Con't)
4. Week	Making connection – AI & other technologies
5. Week	Overview of Industries: Looking at the progress
6. Week	Overview of Industries: Looking at the progress (Con't)
7. Week	Mid- term exam
8. Week	Examples of AI in business – Various industries

9. Week	Examples of AI in business (Con't)
10. Week	Case Study
11. Week	How to scale up in the future of work? Multiple Examples
12. Week	How to scale up in the future of work? Multiple Examples (Con't)
13. Week	How to prepare for jobs in the Artificial Intelligence driven world?
14. Week	Reflections and conclusions
15. Week	Discussion
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2

Total Workload		144
Total Workload/30 hours		4.88
ECTS		5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4					X
5		X			
6					X
7		X			
8	X				
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
International Management	MIS 463	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/ distance learning/hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Handan Akkaş, PhD.						
Course objective	To understand concepts of International Management						
Course Content	Globalization and international business,Cultural environment, Political and legal environment, Economic environment, Export and import Strategies						
References	Daniels J., Radebaugh L., Daniel Sullivan D.(2017) International Business, 16 th Edition, Pearson.						
	After taking this course students will be able to; 1 understand Globalization and international business 2. observe Cultural environment 3. realise Political and legal environment						

	4. realise Economic environment 5. make Export and import Strategies
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**Form IVb (English): Subjects by weeks**

<b>Weeks</b>	<b>Subjects</b>
1. Week	Introduction, basic concepts
2. Week	Globalization and international business
3. Week	Cultural environment
4. Week	Political and legal environment
5. Week	Economic environment
6. Week	Export and import Strategies
7. Week	Mid- term exam
8. Week	International trade theory and factor mobility
9. Week	International trade theory and factor mobility
10. Week	Government influence on trade
11. Week	Exam
12. Week	Government influence on trade
13. Week	The strategy of international business
14. Week	Export and import Strategies
15. Week	Export and import Strategies
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

<b>Semester Works</b>	<b>Number</b>	<b>Contribution</b>
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
<b>Total</b>	<b>29</b>	<b>%100</b>
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
<b>Total</b>	<b>29</b>	<b>%100</b>

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	3	42
Presentation / Seminar Preparation	7	1	7
Project			
Homework assignment	14	4	56
Midterms ( Study duration )	1	1	1
Final Exam (Study duration)	1	2	2
Total Workload			150
Total Workload/30 hours			5.00
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2			X		
3		X			
4				X	
5				X	
6			X		
7				X	
8				X	
9		X			
10				X	
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Database Applications	MIS 465	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						

Mode of Delivery	Face to face/Distance/Hybrid
Learning and teaching strategies	Lecturing, discussion and submission.
Instructor (s)	
Course objective	to teach foundations of database systems, focusing on basics such as the relational algebra and data model, schema normalization, query optimization, and transactions.
Course Content	data models; database and schema design; schema normalization and integrity constraints; query processing; query optimization and cost estimation; transactions; recovery; concurrency control; isolation and consistency; distributed, parallel, and heterogeneous databases; adaptive databases; trigger systems; key-value stores; object-relational mappings; streaming databases
References	1.Hellerstein, Joseph, and Michael Stonebraker. <i>Readings in Database Systems (The Red Book)</i> . 4th ed. MIT Press, 2005. ISBN: 9780262693141. 2. Ramakrishnan, Raghu, and Johannes Gehrke. <i>Database Management Systems</i> . 3rd ed. McGraw-Hill, 2002. ISBN: 9780072465631.
Learning outcomes	After taking this course students will be able to; 1.understand foundations of database systems 2.understand data models; database and schema design 3. understand query processing; query optimization and cost estimation 4. understand transactions, recovery 5.distributed, parallel, and heterogeneous databases

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Introduction
2. Week	The relational model
3. Week	Schema Design
4. Week	Introduction to database internals
5. Week	Database operators and query processing
6. Week	Indexing and access methods
7. Week	Mid- term exam
8. Week	Buffer pool design and memory management
9. Week	Join algorithms
10. Week	Query optimization, transaction and locking
11. Week	Optimistic concurrency control
12. Week	Recovery
13. Week	Distributed transaction, parallel databases
14. Week	NOSQL, ORM, Streaming databases
15. Week	Discussion
16. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	5	70
Presentation / Seminar Preparation			
Project			
Homework assignment	14	2	28
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			144
Total Workload/30 hours			4.88
ECTS			5.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		

4					X
5		X			
6					X
7		X			
8	X				
9		X			
10	X				
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Leadership in the New Era	MIS 457	Fall	3	0	0	3	5
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Pinar AYYILDIZ, PhD						
Course objective	gaining insights into leadership, types of leadership and leadership in the changing world						
Course Content	Leadership, types of leadership, leadership in business, management, changing face of leadership in the new millenium						
References	1. Leadership in a New Era. 2002. Renesch, J. (ed.). William Morrow & Company, Inc. 2. Hickman, R. Gill (2010). Leading Organizations: Perspectives for a New Era (2nd Ed.). SAGE. 3. Leadership 2050: Critical Challenges, Key Contexts, and Emerging Trends. 2015. Sowcik, M. (ed.). Emerald Group Publishing.						
Learning outcomes	After taking this course students will be able to; 1. define leadership 2. differentiate between managing and leading organizations 3. comment on types of leadership 4. recognize the changing nature of leadership in business 5. grasp the importance of leadership in the companies of future						

### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	What is leadership? A Novel Look at Leadership: Leadership Redefined
2. Week	Differences between leading and managing people and organizations today

3. Week	Types of Leadership Past and Present
4. Week	Emerging Leadership Types in the New Era
5. Week	Challenges Awaiting Leaders of the New Era
6. Week	Changing Contexts in the Changing World- New Perspectives Toward Leadership Paradigm
7. Week	Mid- term exam
8. Week	Exemplary Applications of New Leadership from the world
9. Week	Exemplary Applications of New Leadership from Turkey
10. Week	Women as Leaders/Women Leadership
11. Week	Global Leadership: International Dimensions
12. Week	21st Century Leadership
13. Week	Evaluating Cases through the perspective of new leadership
14. Week	Evaluating Cases through the perspective of new leadership
15. Week	Evaluating Cases through the perspective of new leadership
16. Week	Final Exam

#### Form Vb (İngilizce): Assesment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			

Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	4	56
Presentation / Seminar Preparation	14	2	28
Project			
Homework assignment	7	3	21
Midterms ( Study duration )	1	1	1
Final Exam (Study duration)	1	2	2
Total Workload			150
Total Workload/30 hours			5.00
ECTS			5.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3					X
4					X
5			X		
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Quality Management	MIS 293	Fall	3	0	0	3	3
Prerequisites	None						
Course Language	English						
Course Type	Compulsory						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion, report preparation and submission.						
Instructor (s)	Cem Harun MEYDAN, PhD						

Course objective	In this course, after learning the concept of quality management, information about the applications in the aviation sector will be obtained. Also, basic regulatory and operational requirements to design and control an efficient QMS will be learned. In addition, the students will learn about International Standardization Organization (ISO) and their current work on quality management.
Course Content	Definition of quality and basic concepts of quality, national and international quality organizations, aviation Quality organizations and other organizations, Quality history, Quality management system, Quality Requirements, Basic principles, Quality Principles and Concepts, Quality and Management Relations, Quality in Organizations, Relationship between Quality and Auditing
References	1. David L. Goetsch, Stanley B. Davis - Quality Management for organizational excellence introduction to total Quality-Pearson Education (2016) 2. Dale H. Besterfield, Carol Besterfield-Michna, Glen H. Besterfield, Mary Besterfield-Sacre, Hemant Urdhwarshe, Rashmi Urdhwarshe - Total Quality Management - Pearson Education (2012)
Learning outcomes	After taking this course students will be able to;  1. Understand the development of quality and quality management in aviation. 2. Recognize national and international quality organizations and understands their quality requirements. 3. Understand the quality requirements in an organization and how it can form the quality management system. 4. Comprehend the importance of quality and its relation to safety in institutions and organizations. 5. Learn how to create a culture of quality and how to control it successfully.

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
17. Week	Quality Definitions and History
18. Week	Quality and Business Management
19. Week	Relationship between Customer, Services and Quality
20. Week	Process Quality Management
21. Week	ISO 9000 family and Requirements for Quality
22. Week	Quality Management Standards ISO 14000, ISO 22000, ISO 45000, ISO 5001 Standardizations
23. Week	Quality Management Standards ISO 14000, ISO 22000, ISO 45000, ISO 5001 Standardizations
24. Week	Midterm Exam
25. Week	Quality Management Standards in different sectors
26. Week	Organizational Quality Requirements and Related Regulations
27. Week	Quality Requirements and Applications
28. Week	Quality and Safety Relationships
29. Week	Quality and Auditing
30. Week	Quality Management Applications in Organizations
31. Week	Quality Change Process
32. Week	Final Exam

**Form Vb (İngilizce): Assessment Method**

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form Vİb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	10	3	30
Presentation / Seminar Preparation			
Project			
Homework assignment	14	1	14
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			90
Total Workload/30 hours			30
ECTS			3.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1				X	
2				X	
3			X		
4					X
5		X			
6					X
7		X			
8	X				
9		X			
10		X			
11	X				

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
History of Science	MIS 294	Spring	3	0	0	3	3
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor(s)	Pinar AYYILDIZ, PhD						
Course objective	Having a closer look at the history of science from Ancient times, “dawn of civilizations” to present with also a focus on the future directions						
Course Content	Inventions, discoveries, approaches to science, interdisciplinary understandings, philosophy of science, various schools of thought, trends and debates						

References	<ol style="list-style-type: none"> <li>1. Pinker, S. (2018). Enlightenment Now: The Case for Reason, Science, Humanism, and Progress. Penguin Books.</li> <li>2. Okasha, S. (2002). Philosophy of Science: A Very Short Introduction. Oxford University Press.</li> <li>3. Renn, J. (2020). The Evolution of Knowledge: Rethinking Science for the Anthropocene. Princeton University Press.</li> </ol>
Learning outcomes	<p>After taking this course students will be able to;</p> <ol style="list-style-type: none"> <li>1. gain an understanding of Eastern intellectual approaches (to science)</li> <li>2. gain an understanding of Western intellectual approaches (to science)</li> <li>3. track down history of technology</li> <li>4. relate Philosophy and Science</li> <li>5. revisit the nature of Science(s)</li> </ol>

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	History of Science: The Ancient Era
2. Week	History of Science: The Middle Ages
3. Week	History of Science: Enlightenment
4. Week	History of Science: Today
5. Week	History of Science: Tomorrow
6. Week	Paradoxes in the History of Science
7. Week	Mid- term exam
8. Week	Philosophy of Science
9. Week	Scientific Revolutions
10. Week	History of Women in Science: From Antiquity to Today
11. Week	Knowledge in History/History of Knowledge
12. Week	Epistemology
13. Week	Science and Challenges for Humanity
14. Week	Science and Opportunities for Humanity
15. Week	Review
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0

Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form VIb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	2	28
Presentation / Seminar Preparation			
Project			
Homework assignment	7	2	14
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			88
Total Workload/30 hours			2.93
ECTS			3.00

#### Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3					X
4					X
5			X		
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### COURSE INFORMATION

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Knowing thyself: beginning of all wisdom	MIS 392	Spring	3	0	0	3	3
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor(s)	Pinar AYYILDIZ, PhD						
Course objective	gaining an understanding of one's knowing himself/herself and its relations to becoming human						
Course Content	Self-knowledge, self-value, searching for a meaning, wisdom, identity						
References	1. Rossellini, I. (2018). Know Thyself: Western Identity from Classical Greece to Renaissance. Penguin. 2. Technologies of the Self: A Seminar with Michel Foucault. 1988. Martin, L. H., Patrick H. (edt.) & Gutman, H. University of Massachusetts Press. 3. Yıldız, N. (2012). The Search of Human: Knowing Yourself. <i>Felsefe Arikivi</i> , 36(I), 7-15.						
Learning outcomes	After taking this course students will be able to; <ol style="list-style-type: none"> <li>1. relate philosophical thoughts and the notion of "know thyself"</li> <li>2. link wisdom, self and one's knowing self in a meaningful manner</li> <li>3. explore mind and self to further relate it to knowing and knowledge</li> <li>4. understand the concepts of cognition, consciousness, self-awareness</li> <li>5. delve into the term "human nature"</li> </ol>						

#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	"Know Thyself" in the Ancient World and history (philosophical readings from the East)
2. Week	"Know Thyself" in the Ancient World and history (philosophical readings from the West)
3. Week	What is wisdom? How can it be linked to "know thyself"?
4. Week	What is mind? What is its connection to knowing and knowledge?
5. Week	Dwelling upon cognition/meta-cognition
6. Week	Looking at consciousness/looking at the "mirror"
7. Week	Mid- term exam
8. Week	Being self-aware in the modern world

9. Week	Investigating human nature
10. Week	Knowing Thyself in Literary Work- Poems
11. Week	Knowing Thyself in Literary Work- Novels/Stories
12. Week	Knowing Thyself in Legends and Tales
13. Week	Knowing Thyself in Religious Texts
14. Week	Knowing Thyself and Being/becoming a whole person
15. Week	Review
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40
Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

#### Form Vİb (English): WORKLOAD AND ECTS CALCULATION

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	2	28
Presentation / Seminar Preparation			
Project			
Homework assignment	7	2	14
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2

Total Workload		88
Total Workload/30 hours		2.93
ECTS		3.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3					X
4					X
5			X		
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

**COURSE INFORMATION**

Course Name	Code	Semester	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	National Credit	ECTS
Management in 21st Century	MIS 491	Fall	3	0	0	3	3
Prerequisites	None						
Course Language	English						
Course Type	Elective						
Mode of Delivery	Face to face/Distance Learning/Hybrid						
Learning and teaching strategies	Lecturing, discussion and submission.						
Instructor (s)	Pinar AYYILDIZ, PhD						
Course objective	raising an awareness of what management is in the new millennium by having a look at the shifting relevant perspectives along with paradigms						
Course Content	Management, managing institutions and organizations, managing companies and businesses, new technologies in management, the altered understanding of management in the 21st century						
References	1. 21st Century Management: A Reference Handbook. 2008. Wankel, C. (Ed.). SAGE Publications, Inc. 2. Drucker, P. F. (2001). Management Challenges for the 21st Century. HarperCollins Publishers Inc.						

Learning outcomes	<p>After taking this course students will be able to;</p> <ol style="list-style-type: none"> <li>1. compare and contrast traditional and novel management styles, methods and techniques</li> <li>2. understand concepts such as startups, entrepreneurship and corporate management</li> <li>3. internalize the role of new technologies in management</li> <li>4. study global issues pertaining to management in the new era</li> <li>5. revisit the essentials of management in the 21st century world</li> </ol>
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#### Form IVb (English): Subjects by weeks

Weeks	Subjects
1. Week	Traditional Outlook on Management
2. Week	Contemporary issues in management (e.g. multicultural topics, key technologies, new models)
3. Week	Crisis Management in the new era
4. Week	Global Business Citizenship
5. Week	Women as managers in/of the 21st century
6. Week	Socially responsible management in the changing world
7. Week	Mid- term exam
8. Week	Human Resource Management in the new era
9. Week	Change Management in the changing world
10. Week	Sustainable organizations of the 21st century
11. Week	Eco-sensitive management
12. Week	Planning in the new millenium as part of management
13. Week	Innovation and Creativity Management
14. Week	Project Management in the new era
15. Week	Brand Management and Sales Management in the new world
16. Week	Final Exam

#### Form Vb (İngilizce): Assessment Method

Semester Works	Number	Contribution
Attendance	14	%0
Laboratory	0	%0
Application	8	%0
Fieldwork	0	%0
Practice	0	%0
Homework Assessment	0	%0
Presentation	5	%0
Project	0	%0
Seminar	0	%0
Mid-term Exams	1	%40

Final Exam	1	%60
Total	29	%100
Contribution of semester Works to success points	28	%40
Contribution of final exam to success points	1	%60
Total	29	%100

**Form VIb (English): WORKLOAD AND ECTS CALCULATION**

Activities	Number	Duration (hour)	Total Workload
Course Duration (x14)	14	3	42
Laboratory			
Application			
Specific practical training			
Field activities			
<b>Study Hours Out of Class</b> (Preliminary work, reinforcement, preparation for the exams)	14	2	28
Presentation / Seminar Preparation			
Project			
Homework assignment	7	2	14
Midterms ( Study duration )	1	2	2
Final Exam (Study duration)	1	2	2
Total Workload			88
Total Workload/30 hours			2.93
ECTS			3.00

**Form VIIb (English): THE COURSE LEARNING OUTCOMES - PROGRAM OUTCOMES MATRIX**

Program Outcomes	Contribution Level*				
	1	2	3	4	5
1			X		
2				X	
3					X
4					X
5			X		
6				X	
7			X		
8					X
9				X	
10			X		
11				X	

1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest