







Strategic Management, Agility and Right Technologies for Youth

2020-2-TR01-KA205-095914

NEW GENERATION DIGITAL ENTREPRENEURSHIP CURRICULUM RECOGNITION TOOLKIT









New Generation Digital Entrepreneurship Curriculum Recognition Toolkit

1. MODULE 1 - DIGITAL BUSINESS

1.1. Aim

The most critical goal of any company's digital transformation is to better meet customers' needs. On the way to achieving this goal, companies can generate more revenue and profit margins. Courses sit at the intersection of management and data science which covers topics such as Digital Marketing and Platform Business.

The Programme focuses on digital innovation in business, marketing, and communication strategies to be carried out through digital platforms and social media, start-up processes, algorithms behind IT and technological networks, financial intermediation processes, new electronic payment methods and e-government.

1.2. ECTS Table

	Module -1: Digital Business	ECTS: 1
N	Courses	Classroom (Hours/Minute)
1	Digital Firm in a Digital Economy	50min
2	Knowledge Management, Big Data, Business Intelligence	1 Hour
3	E-business, Mobile Commerce	30min
4	Social Media & Business-PROs	40 min
5	Social Media & Business-CONs	20min
6	eMarketplaces & eBusiness Strategy	30min
7	Issues in Digital Business	30min
8	ERP & Beyond	40min
9	IS/IT Strategy Competitive Advantage	30min
10	Cloud Computing in the Enterprise	30min

1.3. Total Workload (Hours):

6 Hours





















1.4. Course Details

1.4.1. Digital Firm in a Digital Economy

The aim of this course is;

- to draw attention to digital businesses,
- to embrace digital business processes,
- · to understand the importance of information systems and technologies and
- to prioritize emerging technologies.

1.4.1.1. Learning outcomes of the course:

- Learns the structure of the digital business.
- Gain general knowledge about digital execution of business processes
- Learn general information about IS/IT
- Gain knowledge about emerging technologies and adaptation

Number	Duration (min.)	Activity description	Intended outcome
1	10	What is a Digital Firm?	General information about
			digital companies will be given.
2	10	The role of information	Information about the use of
		technology (IT) in the	technology in the organization
		organization	will be obtained.
3	10	The role of information	Information about the use of
		systems (IS) in the	system in the organization will
		organization	be obtained.
4	20	Emerging technology	Information about the definition
			of new technology will be
			obtained.

1.4.1.2. Follow-up activity

Students can move on to the next course.

1.4.2. Knowledge Management, Big Data, Business Intelligence

The aim of this course is to ensure the use of the business intelligence method by adopting the value of data retention and analysis of the data held.

1.4.2.1. Learning outcomes of the course:

- to have general knowledge about knowledge management
- to learn the logic and importance of BI.





















- to learn BI tools
- to identify data collection sources
- to have general knowledge about DBMS
- to learn the benefits of big data analysis

Activity	Duration (min.)	Activity description	Intended outcome
1	10	What is Knowledge	Learn about information
		Management?	management
2	5	Business Intelligence	General information about BI
			will be obtained
3	15	How Business	Information about BI usage
		Intelligence Works:	areas and BI examples will be
			obtained.
4	5	Why companies benefit	You will be informed about the
		from using business	advantages of BI
		intelligence tools:	
5	15	Different Sources of Data	Information about data
		for Data Analysis	collection sources will be
			obtained.
6	10	Database Management	Information about data
		Systems	management systems will be
			obtained.
7	10	Big Data and Analytics	General information about big
			data and its analysis will be
			obtained.

1.4.2.2. Follow-up activity

Students can move on to the next course.

1.4.3. eBusiness & Mobile Commerce

This course aims to teach use of e-commerce methods and tools in case of starting a business.

1.4.3.1. Learning outcomes of the course:

- Acquiring the ability to distinguish between e-business and e-commerce
- Understanding the difference between traditional businesses and e-businesses
- Having knowledge about e-business infrastructure elements





















- · Gaining the ability to harness the power of mobile technology
- Having knowledge about mobile marketing methods and processes

Activity	Duration (min.)	Activity description	Intended outcome
1	5	eBusiness vs	Learn about e-business and e-
		eCommerce	commerce.
2	5	How is e-business	Information about the
		different to a traditional	differences between e-
		business?	business and traditional
			business will be obtained.
3	5	How viable is an e-	Information about e-business
		business?	applicability will be obtained.
4	5	eBusiness	Information about e-business
		Infrastructure	infrastructure will be obtained.
5	5	The growing role of	Information about the usage
		mobile technology	areas and importance of mobile
			technologies will be obtained.
6	5	Mobile Sales &	Information about the place of
		Marketing Technology	mobile technologies in
			marketing activities will be
			obtained.

1.4.3.2. Follow-up activity

Students can move on to the next course.

1.4.4. Social Media & Business - PROs

The aim of this course, directing the effective use of social media by adopting social media management.

1.4.4.1. Learning outcomes of the course:

- Learning social media advertising tools
- Gaining knowledge of SEO activities
- Learn to use social media to network
- Learning social media sales strategies





















Activity	Duration (min.)	Activity description	Intended outcome
1	5	Advertising	Information about the power
			of advertising in electronic
			media will be obtained.
2	5	Cost-effectiveness	Information about cost
			advantages will be obtained.
3	10	Community	Information about the
			importance of community
			building for businesses will be
			obtained.
4	10	Networking	You will learn about
			networking.
5	10	Growth	Information about the
			contribution of the social
			environment on the internet to
			businesses in terms of magic
			will be obtained.

1.4.4.2. Follow-up activity

Students can move on to the next course.

1.4.5. Social Media & Business - CONs

The aim of this course, adopting the disadvantages of using social media for businesses.

1.4.5.1. Learning outcomes of the course

• The points to be considered while using social media are learned.

Activity	Duration (min)	Activity description	Intended outcome
1	2	Restrictions	You will be informed that there are restrictions on social media sharing.
2	5	Privacy	Information about the importance of confidentiality will be obtained.





















Activity	Duration (min)	Activity description	Intended outcome
3	5	Reputation damage	Information will be obtained
			about the reputational
			damage that businesses
			operating in e-media may
			experience as a result of their
			sharing.
4	3	Tracking ROI	Information about ROI will be
			obtained through e-ads.
5	3	Trolls	Information about troll
			management will be obtained.
6	2	Time-consuming	Information about the
			balanced execution of social
			media management will be
			obtained.

1.4.5.2. Follow-up activity

Students can move on to the next course.

1.4.6. eMarketplaces & eBusiness Strategy

The aim of this course is to teach strategies for customer acquisition, loyalty and sales returns through e-commerce activities.

1.4.6.1. Learning outcomes of the course

- Learning the differences between sales strategies and choosing the appropriate sales model
- Learning strategies that can be used in e-commerce activities

Activity	Duration (min)	Activity description	Intended outcome
1	5	B2B - Business to	Information about the B2B
		Business	model will be obtained.
2	5	B2C - Business to	Information about the BC2
		Consumer	model will be obtained.
3	5	C2C - Consumer to	Information about the C2C
		Consumer	model will be obtained.





















Activity	Duration (min)	Activity description		Intended outcome
4	15	eBusiness Strategy	&	Information about the
		Applications		strategies that businesses
				can implement in e-
				commerce activities will be
				obtained.

1.4.6.2. Follow-up activity

Students can move on to the next course.

1.4.7. Issues in Digital Business

The aim of this course is to promote the adoption of secure digital commerce.

1.4.7.1. Learning outcomes of the course:

- Learning the necessary certificates for a safe business
- Embracing the importance of infrastructure security
- Learning the importance of privacy for businesses

Activity	Duration (min.)	Activity description	Intended outcome
1	15	Taking Steps to Secure	You will be informed about the
		Digital Experiences	steps to be taken for secure e-
			commerce.
2	15	Thinking and working	Information about the
		ethically and in a socially	importance of ethical activities
		responsible way	for businesses will be
			obtained.

1.4.7.2. Follow-up activity

Students can move on to the next course.

1.4.8. ERP & Beyond

The aim of this course is to teach the importance of using enterprise resource planning applications in digital business focus.





















1.4.8.1. Learning outcomes of the course

- Having general knowledge about ERP
- Learning the benefits of ERP
- Being aware of the difficulties in ERP integration processes
- Having information about the ERP transition period
- Having general knowledge about other resource management applications

Activity	Duration (min.)	Activity description	Intended outcome
1	5	ERP Capabilities &	General information about
		Benefits	ERP will be obtained.
2	5	What business functions	Information will be obtained
		benefit from ERP?	about which areas can benefit
			from ERP.
3	5	ERP Capabilities &	Learn about ERP capabilities
		Benefits	and benefits.
4	5	Key Features of ERP	Information about ERP key
		Systems	features will be obtained.
5	5	SCM and CRM	Incoming information about
			customer and supply chain
			management software will be
			obtained.
6	15	ERP	Information about the
			installation and details of the
			ERP system will be obtained.

1.4.8.2. Follow-up activity

Students can move on to the next course.

1.4.9. IS/IT Strategy & Competitive Advantage

The aim of this course is prioritizing the establishment of information systems and technologies.

1.4.9.1. Learning outcomes of the course:

Gaining knowledge of IT and IS





















Having detailed information about IS and IT installation steps

Activity	Duration (min.)	Activity description	Intended outcome
1	5	What is an information	Information systems strategies will
		systems strategy?	be acquired.
2	5	Why do I need an	Information about the necessity of
		effective information	information systems will be
		system strategy?	obtained.
3	10	Developing &	Information about IS and IT
		Designing IS/IT	installation stages will be
		Strategy	obtained.
4	10	IS &Competitive	Information will be gained about
		Advantage	the competitive advantages
			provided by information systems.

1.4.9.2. Follow-up activity

Students can move on to the next course.

1.4.10. Cloud Computing in the Enterprise

The aim of this course is increasing productivity by teaching the importance of cloud technologies.

1.4.10.1. Learning outcomes of the course:

- Basic knowledge of cloud science
- Gain the ability to decide between cloud computing types

Activity	Duration (min.)	Activity description	Intended outcome
1	5	What is Cloud	General information about cloud
		Computing	computing will be obtained.
2	5	Cloud Computing	Information about cloud
		Characteristics and	computing qualifications and
		Features	features will be obtained.
3	5	Types of Cloud	Basic information about cloud
		Services	computing service types will be
			acquired.





















Activity	Duration (min.)	Activity descript	ion	Intended outo	come	
4	10	Types of Cloud I	Delivery	Information	about	cloud
		Models		computing dis	tribution mo	dels will
				be obtained.		
5	5	How does	Cloud	Information	about	cloud
		Security Work?		computing sec	urity system	ns will be
				obtained.		

1.4.10.2. Follow-up activity

Students can move on to the next course.









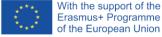












2. MODULE 2- EXISTING DIGITAL BUSINESS TECHNOLOGY & SOLUTIONS

2.1. Aim

The aim of this module is to make young entrepreneurs to achieve goals in the modern world, by being courageous, curious, and having a solid grasp on digital transformation topics. In this module, they start from the basics to build their deep knowledge and understanding of entrepreneurial digital transformation, and they will get up-to-date, efficient, and justified digital transformation techniques and knowledge from a digital practitioner. These skills and knowledge will help them to land a job in the digital transformation domain and also help them to grow their ongoing knowledge of the digital sphere. The participants will get the essential points and how to apply them and help them master digital transformation.

2.2. ECTS Table

	Module -2: Existing Digital Business	ECTS: 1
	Technology & Solutions	
N	Courses	Classroom (Hours/Minute)
1	CRM – Customer Relationship Management	45 min
2	Resilient business models	45 min
3	BPM – Business Performance Management	45min
4	Supply Chain Management	45 min
5	e-Invoicing	45 min
6	Digital HRM (remote workforce management, employee motivation and wellbeing)	45 min
7	Collaborative platforms	45 min
8	Fintech	45 min

2.3. Total Workload (Hours)

6 Hours

2.4. Course Details

2.4.1. Customer Relationship Management (CRM)

Customer relationship management is an approach to managing a company's interaction with current and potential customers.





















2.4.1.1. Learning outcomes of the course:

By the successful completion of this course, the participant will be able to explain the importance of the strategic, technological and organization aspects of CRM, define and analyze the core elements of CRM that optimize profitability, revenue and customer satisfaction and excellence.

Number	Duration (min.)	Activity description	Intended outcome
1	15	What is a CRM	An introduction to the idea of
'	1 15	Software?	CRM Software
		CRM Software & the	The general information about
2	30	Pandemic	CRM and the bilateral effect of
			the pandemic in business life

2.4.1.2. Follow-up activity

Students can move on to the next course.

2.4.2. Resilient Business Models

Business resilience is the ability of an organization to quickly adapt to disruptions while maintaining continuous business operations and safeguarding people, assets and overall brand equity. Those who take this course will learn this ability.

2.4.2.1. Learning outcomes of the course

By the end of the course, the participants will gain the skill of developing resilience to overcome challenges, such as those resulting from difficult relationships, disrupted work-life balance, and stressful or tragic events. Cultivating resilience can also contribute to increasing your ability to accept and respond constructively to criticism.

Activity	Duration (min.)	Activity description	Intended outcome
1	10	Building a More	General information about
,	10	Resilient Business	building a resilient business
		The Challenge of	
2	10	Measuring and	The skill of the challenge of
۷	10	Managing Resilience	managing resilience





















Activity	Duration (min.)	Activity description	Intended outcome
3	10	Building Resilient Enterprises	The skill of resilient enterprises
4	15	How to Become a More	The ability to create resilient
		Resilient Company	company

2.4.2.2. Follow-up activity

Students can move on to the next course.

2.4.3. Business Process Management (BPM)

Business Process management is a management discipline that ensures the continuous improvement of an institution's performance and accepts processes as a fundamental "asset". A process is a series of events and movements that are unified or repeated in a certain order or time, progressing, and developing.

2.4.3.1. Learning outcomes of the course

After finalizing the course, the participant will get the skill of minimizing duplication, dated information to help the teams get organized. The participant will be empowered to bridge the gaps and regain control of information, whether on the customers or the organization itself.

Activity	Duration (min.)	Activity description	Intended outcome
1	10	What is business	The general idea of business
'	10	process management?	process management
2	10	Types of BPM	The information of types of the
2	10		BPM
3	10	Business process	General information about BPM
3	10	management lifecycle	mechanism
4	15	Business Process	General information about the
4	13	Management Benefits	BPM and the skill of operating it

2.4.3.2. Follow-up activity

Students can move on to the next course.





















2.4.4. Supply Chain Management

Supply Chain Management is the integrated management of material, information and money flow that ensures that the right product reaches the customer at the right time, at the right place, at the right price, at the lowest possible cost for the entire supply chain. Those who take this course will learn supply chain management.

2.4.4.1. Learning outcomes of the course:

After completing successfully, the course, the participant will gain the skills of;

- Understanding fundamental supply chain management concepts.
- Applying knowledge to evaluate and manage an effective supply chain.
- Understanding the foundational role of logistics as it relates to transportation and warehousing.
- Understanding how to align the management of a supply chain with corporate goals and strategies.
- Analyzing and improve supply chain processes.

Activity	Duration (min.)	Activity description	Intended outcome
1	15	What is Supply Chain	The general information upon
ı	15	Management?	Supply Chain Management
		Supply Chain	The information and skill of
2	30	Management Software	Supply Chain Management
			Software

2.4.4.2. Follow-up activity

Students can move on to the next course.

2.4.5. E- Invoicing

E-Invoicing is a system that enables invoices to be issued, shared and monitored electronically using an internet connection. Those who take this course will learn E- Invoicing system.

2.4.5.1. Learning outcomes of the course:

After completing the course, the participant will gain the skill of data reconciliation and accuracy during manual data entry. It allows interoperability across businesses and faster processing and an increased likelihood that the company get paid earlier.





















Activity	Duration (min.)	Activity description	Intended outcome
1	45	e-Invoicing Overview	The general information upon
'	45	e-invoicing overview	E-Invoicing Processes

2.4.5.2. Follow-up activity

Students can move on to the next course.

2.4.6. Digital Human Resource Management (HRM)

Digital HR is a process optimization in which software technologies and especially cloud technologies are used to make Human Resources more efficient, effective and communication high. In other words, it is the evolution of Human Resources processes and ways of working with digital transformation.

2.4.6.1. Learning outcomes of the course

The participant will learn about employee relations, including how to lead negotiations, manage grievances, deal with strikes and lockouts, and stay within the bounds of the law when working with unions, employees, managers, and government officials with a digital transformation.

Activity	Duration (min.)	Activity description	Intended outcome
1	10	What is Digital HR?	The general information upon digital HRM
2	15	What is Remote Workforce Management Software?	The skill on remote workforce management software
3	20	Employee Wellbeing vs performance?	The skill of overall employee experience that affects the business life

2.4.6.2. Follow-up activity

Students can move on to the next course.





















2.4.7. Collaborative Platforms

A Collaborative Platform is a category of business software that adds broad social networking capabilities to work processes. In this course, you will learn how to access and use collaboration platforms.

2.4.7.1. Learning outcomes of the course:

After completing the course, the participant will gain not only the skills of investigating the relations between perceptions of peer interactions, perceived learning and satisfaction with collaborative activities but also positive interdependence, individual accountability, and interpersonal skills

Activity	Duration (min.)	Activity description	Intended outcome
1	10	What is a Collaboration Platform?	The general information upon Collaboration Platforms
2	20	What Are the Types of Collaboration Platforms?	The information about the varieties of the CPs
3	15	Collaboration Platform Features	The information of CP features

2.4.7.2. Follow-up activity

Students can move on to the next course.

2.4.8. Fintech

Fintech is a technology and innovation that aims to compete with traditional financial methods in the delivery of financial services. Fintech is an emerging industry that uses technology to improve operations in finance.

2.4.8.1. Learning outcomes of the course

After completing the course, the participant will gain the skills of understanding of the overall role and importance of the fintech function and finance management knowledge on a basic level. Also, the course will help the participant to communicate effectively using standard business terminology.





















Activity	Duration (Min.)	Activity description	Intended outcome
1	10	What is Fintech?	The general information about Fintech
2	20	How does fintech work?	The information about the operational process of Fintech
3	15	Fintech Examples	Some examples of working areas of Fintech

2.4.8.2. Follow-up activity

Students can move on to the next course.





















3. MODULE 3 - CURRICULUM IN DIGITAL MARKETING & COMMUNICATIONS

3.1. Aim

The general purpose of this module is to enable participants with a set of knowledge and skills concerning how to use interactive digital communication technologies and how to effectively manage of these digital resources by organizations and companies to improve their businesses.

3.2. ECTS Table

	Module-3: Digital Marketing & Communications	ECTS: 1
N	Courses	Classroom (Hours/Minute)
1	The internet. The web – A short presentation	1 Hour
2	Social Media and Social Media for Business	1 Hour
3	Digital Champaigns	1 Hour
4	Chatbots	1 Hour
5	Data Analytics	1 Hour
6	Digital Communications	1 Hour

3.3. Total Workload (Hours)

6 Hours

3.4. Course Detail

3.4.1. The internet. The web – A short presentation

The aim of this course, to understand the basic concepts and differences between concepts, to know the differences between web types.

3.4.1.1. Learning outcomes of the course

- Understanding the basic concepts of internet and web.
- Knowing the characteristics between different types of web (web 1.0, 2.0, 3.0).

Number	Duration (min.)	Activity description	Intended outcome
1	30	What is the internet? How	A short presentation about
		does the internet work?	internet and web will be given.
		What does the web mean?	





















Number	Duration (min.)	Activity description	Intended outcome
2	30	What are the types of web	Information about the
		and their characteristics?	differences between types of
			web will be given.

3.4.1.2. Follow-up activity

Students can move on to the next course.

3.4.2. Social Media and Social Media for Business

Understanding of the benefits of social media for business. Developing effective management skills of using social media resources for business in participants.

3.4.2.1. Learning outcomes of the course

General information about social media interactive technologies will be given.

Activity	Duration (min.)	Activity description	Intended outcome
1	15	What is social media?	General information about
			social media interactive
			technologies will be given.
2	15	What are the benefits of	Information about benefits for
		social media for	businesses that use social
		business?	media will be given.
3	15	What are the most used	Information about which
		social media platform	social media platform is best
		used for business?	for business and how they
			operate will be obtained.
4	15	How can be effectively	Information on the use of
		manage the social media	social media will be obtained.
		resources?	

3.4.2.2. Follow-up activity

Students can move on to the next course.

3.4.3. Digital Champaigns

With this course, awareness will be raised about the benefits of digital marketing campaigns for businesses and general information about these concepts will be obtained.





















3.4.3.1. Learning outcomes of the course

Acquiring of the strategies of effectively using of the digital champaigns as resources for business.

Activity	Duration (min.)	Activity description	Intended outcome
1	20	What is a digital	General information about
		champaign?	digital champaigns will be
			given.
2	20	What are the benefits of	Information about benefits for
		digital champaigns for	businesses that use digital
		business?	champaigns will be given.
3	20	How can be effectively	Information about what are the
		manage digital	best strategies of using digital
		marketing champaigns?	champaigns for business will
			be obtained.

3.4.3.2. Follow-up activity

Students can move on to the next course.

3.4.4. Chatbots

The aim of this course, understanding of the benefits of using chatbots as resources for business.

3.4.4.1. Learning outcomes of the course

General information about chatbots and their utility will be given.

Activity	Duration (min.)	Activity description	Intended outcome
1	20	What is a chatbot?	General information about
			chatbots and their utility will
			be given.
2	20	What are the benefits of	Information about of using
		using chatbots for	chatbots for business will be
		business?	taught.





















Activity	Duration (min.)	Activity description	Intended outcome
3	20	How a chatbot can help in	Information about what are
		my business?	the best strategies of using
			chatbots for business will be
			obtained.

3.4.4.2. Follow-up activity

Students can move on to the next course.

3.4.5. Data Analytics

The aim of this course, to understand data analytics as a form of business intelligence.

3.4.5.1. Learning outcomes of the course

General information about data analytics process will be given.

Activity	Duration (min.)	Activity description	Intended outcome
1	30	What is a data analytics	General information about
		process?	data analytics process will be
			given.
2	30	What are the benefits of	Information about using data
		big data solutions for	analytics as a form of
		small businesses?	business intelligence, wins
			and opportunities will be
			obtained.

3.4.5.2. Follow-up activity

Students can move on to the next course.

3.4.6. Digital Communications

The aim of this course, awareness the importance of the digital communications in business and companies.

3.4.6.1. Learning outcomes of the course (2 hours seminar)

Knowing the most effective digital tools for communication with customers and employees.





















Activity	Duration (min.)	Activity description	Intended outcome
1	20	What is digital	General information about the
		communication?	concept and importance of
			digital communications
			nowadays will be given.
2	20	What is business	Information about the most
		communication?	efficient digital channels for
		What are the digital	communication with
		channels for	employees will be given.
		communication with	
		employees?	
3	20	What are the digital	Information about the most
		channels for	efficient digital channels for
		communication with	communication with
		customers?	employees will be obtained.

3.4.6.2. Follow-up activity

The courses in module 3, will continue with the midterm exam.





















4. MODULE 4 - CURRICULUM IN DIGITAL DATA & CURRENT TECHNOLOGY

4.1. Aim

The module aims to give a deeper explanation of the importance of digital data in business, as well as the increasing value of collecting and analyzing it. Companies at the forefront of technological advancements understand that data analytics should be a key driver of business decisions. Understanding their data has critical to every aspect of their businesses.

In addition to growing importance of data for business a technical solution such as "Data Storage", "Cloud Technologies", "Databases", "As-a-Service Technology" and "Sentiment Analysis" are explained in a way to support collecting and preserving data.

4.2. ECTS Table

	Module-4 Digital Data & Current Technology	ECTS: 1
N	Courses	Classroom (Hours/Minute)
1	The Value of Data	1 Hours
2	Data Storage	1 Hours
3	Cloud Technologies	1 Hours
4	Databases	1 Hours
5	As-a-Service Technology	1 Hours
6	Sentiment Analysis	1 Hours

4.3. Total Workload (Hours)

6 Hours

4.4. Module Details

4.4.1. The Value of Data

The aim of this course is understanding of the increasing value of data in digital business.

4.4.1.1. Learning outcomes of the course:

- Basic understanding on data.
- The importance of data in digital business.
- How to create business value from data.





















Number	Duration (min.)	Activity description	Intended outcome
1	30	The Value of Data	Information about potential of
			data
2	30	The Goal: Creating	Data analytics can be a key
		Business Value from	driver of business decisions
		Data	

4.4.1.2. Follow-up activity

Students can move on to the next course.

4.4.2. Data Storage

What are the media that records and preserves digital information for ongoing or future operations. How do this media work. This course will introduce these concepts.

4.4.2.1. Learning outcomes of the course:

- Knowledge of magnetic, optical or mechanical media that records and preserves digital information.
- How Data Storage Works

Number	Duration (min.)	Activity description	Intended outcome
1	30	Data Storage	Knowledge of record and
			preserve of data
2	30	How Data Storage	Knowledge of foundations to
		Works	data storage.

4.4.2.2. Follow-up activity

Students can move on to the next course.

4.4.3. Cloud Technologies

Knowledge about the advantages of cloud computing technology, including cost savings, increased productivity, speed and efficiency, performance and protection will be gained through this deck.





















4.4.3.1. Learning outcomes of the course:

- The essence of cloud technology.
- Number of advantages of cloud technology

Number	Duration (min.)	Activity description	Intended outcome
1	30	Cloud computing	Information about cloud
			computing tools such as data
			storage, servers, databases,
			applications, and networks
2	30	Advantages of Cloud	Information about the
		Technology	advantages of CT:
			Cost Optimization, Scalability
			and Resource Utilization, Data
			Security, Collaboration and
			Ease of Use, Fast Software
			Updates of Resources
			High Speed and Flexibility,
			Rapid Deployment

4.4.3.2. Follow-up activity

Students can move on to the next course.

4.4.4. Databases

The aim of this course is to teach how data can be structured and categorized in databases in accordance with the needs of the institution and how to create and manage the database.

4.4.4.1. Learning outcomes of the course

- How to use database in helping a company to know about its present performance, estimating and making plans for further operations.
- Popular Database options for SMEs





















Number	Duration (min.)	Activity description	Intended outcome
1	30	Understanding	General information about
		Databases	databases
2	30	Popular Database	Oracle Database
		options for SMEs	PostgreSQL – free
			Microsoft SQL Server (SQL
			pronounced sequel)

4.4.4.2. Follow-up activity

Students can move on to the next course.

4.4.5. As-a-Service Technology

Explanation of the essentials of as-a-service model and how is revolutionizing the way businesses compute and compete. Information about different as-a-service models.

4.4.5.1. Learning outcomes of the course:

- Knowledge about as-a-service model and how to achieve greater agility, flexibility, speed, and more.
- Knowledge of different as-a-service models and their advantages.

Number	Duration (min.)	Activity description	Intended outcome
1	15	As-a-Service	General information about As-
		Technology	a-Service Technology
2	15	Infrastructure as a	Information about the use of
		Service (laaS)	Infrastructure as a Service
3	15	Platform as a Service	Information about the use of
		(PaaS)	Platform as a Service (PaaS)
4	15	Software as a Service	Information about the use of
		(SaaS)	Software as a Service (SaaS)

4.4.5.2. Follow-up activity

Students can move on to the next course.





















4.4.6. Sentiment Analysis

Explanation of Sentiment Analysis in business, also known as opinion mining, as a process of identifying and cataloging a piece of text according to the tone conveyed by it to adjust to the present market situation and satisfy customers in a better way.

4.4.6.1. Learning outcomes of the course:

- Knowledge on the increasing importance of sentiment analysis for digital business.
- How to use sentiment analysis in business intelligence build-up

Number	Duration (min.)	Activity description	Intended outcome
1	20	Sentiment analysis for	General information about
		Business	sentiment analysis
2	20	The Role of Sentiment	Information how sentiment
		Analysis in Business	analysis in business can
			prove a major breakthrough
3	20	Sentiment Analysis in	How to use sediment analysis
		Business Intelligence	to make better decisions.
		Build-up	

4.4.1.1 Follow-up activity

Students can move on to the next module.





















MODULE 5 - CURRICULUM in EMERGING & DIGITAL TRANSFORMATION TECHNOLOGY

5.1. Aim

There are certain innovative digital technologies that emerge into prominence and already have a great impact on people's lives. Module 5 aims to explain the most progressive, prospective and innovative digital technologies which surely will be used by digital business next years.

These Emerging & Digital Transformation Technologies will no doubt form digital business environment following years. A successful digital company without using these technologies is unthinkable, so they have their place in curriculum.

5.2. ECTS Table

	Module-5 Emerging & Digital Transformation	ECTS: 1
	Technology	
N	Courses	Classroom (Hours/Minutes)
1	Artificial Intelligence (AI)	1 Hour
2	Virtual Reality/Augmented Reality	1 Hour
3	Blockchain & Cryptocurrency	1 Hour
4	Internet of Things/Edge Computing	1 Hour
5	Industry 4.0	1 Hour
6	Robotics	1 Hour

5.3. Total Workload (Hours)

6 Hours

5.4. Course Details

5.4.1. Artificial Intelligence (AI)

Information about the essence of Artificial intelligence and how it can be used. Artificial Intelligence as a service and tools that can be used to support digital business.

5.4.1.1. Learning outcomes of the course:

Students will have information about artificial intelligence and how to use it.





















Number	Duration (min.)	Activity description		Intended or	ıtcome
1	60	Artificial	Intelligence	Information	about artificial
		(AI)		intelligence	and how to be
				used.	

5.4.1.2. Follow-up activity

Students can move on to the next course.

5.4.2. Virtual Reality/Augmented Reality

This course is explaining what Virtual Reality, Augmented Reality, and differences between them are.

5.4.2.1. Learning outcomes of the course:

Students will know what virtual Reality and augmented Reality and differences between them are.

Number	Duration (min.)	Activity description Intended outcome	
1	20	Virtual Reality (VR)	Explanation of Virtual Reality
2	20	Augmented Reality	Explanation of Augmented Reality
3	20	Augmented Reality vs Virtual Reality	Comparison between virtual and augmented reality

5.4.2.2. Follow-up activity

Students can move on to the next course.

5.4.3. Blockchain & Cryptocurrency

This course has Definition and explanation of blockchain and cryptocurrency. How blockchain works. Similarities and differences between blockchain and cryptocurrency.

5.4.3.1. Learning outcomes of the course:

Students will learn cryptocurrency and its basis blockchain, so to know how to use cryptocurrency in digital business.





















Number	Duration (min.)	Activity description	Intended outcome
1	10	Blockchain	Information about blockchain
2	10	How does blockchain	Information about how
		work?	blockchain works
3	15	Blockchain &	Blockchain as a ledger for
		Cryptocurrency	cryptocurrency
		(e.g., Bitcoin)	
4	15	Similarities Between	Information why Blockchain &
		Blockchain &	Cryptocurrency are
		Cryptocurrency	Intangible, advanced,
			interdependent.
5	10	Differences Between	Explanation of differences
		Blockchain and	Between Blockchain and
		Cryptocurrency	Cryptocurrency such as
			Inherent Nature, Monetary
			Value
			Usage, Mobility,
			Transparency

5.4.3.2. Follow-up activity

Students can move on to the next course.

5.4.4. Internet of Things/Edge Computing

The aim of this course is knowledge about internet of things and edge computing.

5.4.4.1. Learning outcomes of the course:

The way the devices can be connected to the Internet so they can sense, gather, receive and send data and communicate with each other as well as bringing computing as close to the source of data as possible.

Number	Duration (min.)	Activity description	Intended outcome
1	30	Internet of Things	Information about Internet of
			Things.





















Number	Duration (min.)	Activity description			Intended out	tcome	
2	30	What	is	edge	Information	about	edge
		comput	ing?		computing.		

5.4.4.2. Follow-up activity

Students can move on to the next course.

5.4.5. Industry 4.0

Information about Industry 4.0 - the fourth industrial revolution: the digitization and automation of manufacturing.

5.4.5.1. Learning outcomes of the course:

Knowledge about advances in networking, machine learning, data analytics, robotics, 3D printing, and other technologies.

Number	Duration (min.)	Activity description	Intended outcome
1	60	Industry 4.0	Information about industrial
			revolutions and the fourth
			industrial revolution

5.4.5.2. Follow-up activity

Students can move on to the next course.

5.4.6. Robotics

Knowledge about robotics and how are moving into the business world in a big way.

5.4.6.1. Learning outcomes of the course:

What is robotics and how businesses can see massive savings and cost-effective changes using them.

Number	Duration (min.)	Activity description	Intended outcome
1	20	Robotics	Information about Robotics





















Number	Duration (min.)	Activity description	Intended outcome
2	20	Robotics in Business	Information about Robotics in
			Business and RaaS (Robots-
			as-a-Service)
3	20	Robots-as-a-Service	Information how robots can
			provide productivity boosts

5.4.6.2. Follow-up activity

Students can move on to the next module.





















6. MODULE 6 - CURRICULUM IN GOVERNANCE, RISK AND COMPLIANCE (GRC) & TRUST, SECURITY AND PRIVACY (TSP)AIMS

6.1. Aim

The main aim of this module is to introduce the concepts of Governance, Risk & Compliance (GRC) from a digital data and technology viewpoint. The importance of GRC is linked to Trust, Security & Privacy (TSP) which are the most prominent challenges for modern digital businesses.

This module covers Governance, Compliance, Risk, Contingency Planning, Business Continuity & Disaster Recovery, Data Protection (GDPR), Computer Security, Privacy and Trust in the digital Age.

6.2. ECTS Table

	Modul-6 Governance, Risk and Compliance	ECTS: 1
	(GRC) & Trust, Security and Privacy (TSP)Aims	
N	COURSES	Classroom (Hours/Minute)
1	I.T Governance	30 min.
2	Compliance	30 min
3	Risk	30 min
4	Contingency Planning	40 min
5	Business Continuity & Disaster Recovery	30 min
6	Computer Security	30 min
7	GDPR	30 min
8	Privacy & Trust in the Modern Age	20 min

6.3. Total workload (Hours)

6 Hours

6.4. Course Details

6.4.1. I.T Governance

The topic provides learners with an understanding of the purpose, drivers and key elements of I.T Governance in all types of organizations. This includes the structure, importance and challenges to this vital element of governance in general.





















6.4.1.1. Learning outcomes of the course

The learner should understand the concepts of I.T Governance, why it is important and who is involved.

Number	Duration (min.)	Activity description	Intended outcome
1	10	What is I.T Governance?	Inform students what I.T
			governance is.
2	5	High level goals	Inform students what are the
			high-level goals of I.T
			governance
3	5	Why is I.T Governance	Outline why I.T Governance is
		Important?	important
4	5	Stakeholders	Detail who the stakeholders
			are in I.T governance
5	5	Concerns	Highlight the concerns of I.T
			Governance

6.4.1.2. Follow-up activity

Students can move on to the next course.

6.4.2. Compliance

This topic introduces learners to the concept of compliance and the requirement to adhere to relevant mandatory or best practice standards for operating a digital business.

6.4.2.1. Learning outcomes of the course

The learner should assess compliance with relevant mandatory and best practice standards a digital world.

Number	Duration (min.)	Activity description	Intended outcome
1	4	What is Compliance?	Inform students what I.T compliance is.
2	4	Why is Compliance Important?	Outline why compliance is important





















Number	Duration (min.)	Activity description	Intended outcome
3	4	Information Security	Inform students why
		Compliance	information security
			compliance is paramount
4	4	Relevant Standards and	Introduce briefly relevant
		legislation	standards and legislation
5	4	Chief Compliance officer	Outline the role of CCO
6	5	Compliance Risk	Highlight how risk and
			compliance are linked
7	5	What are the penalties	Introduce the types of
		for non-compliance?	penalties for non-compliance

6.4.2.2. Follow-up activity

Students can move on to the next course.

6.4.3. Risk

This topic introduces learners to the concept of risk within digital business, including the requirement for risk assessments, risk mitigation and risk appetite. Learners will gain understanding that risk is a factor that must be addressed iteratively and repeatedly to ensure good governance and proper compliance whist operating a digital business.

6.4.3.1. Learning outcomes of the course

The learner should comprehend the concept of Risk in digital business

Number	Duration (min.)	Activity description	Intended outcome
1	4	What is Risk?	Inform students what Risk is in
			a digital world.
2	5	What is Risk	Introduce the concept of a risk
		Assessment?	assessment
3	5	Risk Assessment Steps	Outline the steps in a risk
			assessment
4	5	What is Risk	Learn what the concept of risk
		Management?	management is.





















Number	Duration (min.)	Activity description	Intended outcome
5	5	Risk Management	Highlight the most common risk
		Strategies and	management strategies
		Processes	
6	5	Risk Management	Describe the main risk
		Approaches	management approaches
7	5	Why Risk Management	Learn why risk management is
		often fails?	often unsuccessful.

6.4.3.2. Follow-up activity

Students can move on to the next course.

6.4.4. Contingency Planning

Learners will be introduced to the concept of contingency planning which provides assurance in a time of crisis. Contingency planning can help businesses plan for the unexpected to ensure business continuity and continuation of daily operations in periods of crisis.

6.4.4.1. Learning outcomes of the course

The learner should be able to describe what is digital contingency planning and what are the possible steps to digitally prepare for a crisis.

Number	Duration (min.)	Activity description	Intended outcome
1	4	What is Contingency?	Inform students what is a
			contingency
2	4	What is Contingency	Introduce the concept of a risk
		planning?	contingency planning
4	4	Contingency priorities	Outline the priorities in terms of
			Tier 1, 2 and 3
5	4	4 levels based on time	Introduce the concepts of time
		to recover	to recover
6	6	NIST 800-34	Briefly describe NIST 800-34
		contingency plan	contingency plan steps
7	6	Key tangible elements?	Comprehend the real elements
			of a contingency plan





















Number	Duration (min.)	Activity description	Intended outcome
8	6	Contingency planning	List the priorities in a
		priorities	contingency plan
9	6	Entergy contingency	Introduce real world example
		plan	

6.4.4.2. Follow-up activity

Students can move on to the next course.

6.4.5. Business Continuity and Disaster Recovery

Learners will be introduced to the concept of business continuity and its relationship with contingency planning and disaster recovery. Businesses that mitigate risk through strong planning for business continuity and disaster recovery have a better chance of survival in the event of a crisis.

6.4.5.1. Learning outcomes of the course

The learner should be able to describe what is digital contingency planning and what are the possible steps to digitally prepare for a crisis.

Number	Duration (min.)	Activity description	Intended outcome
1	3	What is Business	Inform students what business
		Continuity?	continuity is.
2	3	3 key elements	Introduce the three key
			elements of resilience,
			recovery and contingency
3	3	Why we need a	Highlight why such a plan may
		business continuity	be needed
		plan?	
4	4	Who should participate	List who should be involved in
		in business continuity	contingency planning exercises
		planning?	
5	5	Where to execute a	What are the options as regard
		business continuity	physical location from which to
		plan during a disaster?	execute a business continuity
			plan?





















Number	Duration (min.)	Activity description	Intended outcome
6	6	DIY or use a service	Evaluate whether a company
		provider?	can do it themselves or do they
			need external services?
7	6	Business continuity	Discuss the phases in planning
		planning phases	for business continuity.

6.4.5.2. Follow-up activity

Students can move on to the next course.

6.4.6. Computer Security

Learners are introduced to the basic principles of computer security that will provide an insight into the importance of keeping a digital business system secure against various types of breaches. Cyber-attacks are a real and common threat to all businesses and could unexpectedly cause a major business crisis. Understanding the basis of computer security will help to mitigate cyberthreats.

6.4.6.1. Learning outcomes of the course

The learner should be able to comprehend at a high level the importance of computer and data security. They should also have basic familiarity with the most common types of cyber security attacks.

Number	Duration (min.)	Activity description	Intended outcome
1	5	Case Study?	Introduce major computer
			security example
2	5	Data Security	Highlight the importance and
			scale of data security attacks
			and breaches
3	10	Types of threats	Briefly describe the main
			cyber security threats
4	10	Why does security	Outline the possible impacts
		matter?	of a computer security
			breach.

6.4.6.2. Follow-up activity





















Students can move on to the next course.

6.4.7. General Data Protection Regulations (GDPR)

GDPR was introduced in the European Union in 2018 and its introduction has greatly impacted the way in which personal data can be managed, processed, and stored. Learners will be given insight into the principles of GDPR, its importance and impact via a case study.

6.4.7.1. Learning outcomes of the course

The learner should gain an understanding of why personal data is so important and how this relates to GDPR

Number	Duration (min.)	Activity description	Intended outcome
1	10	GDPR	Give an overview of the EU's
			General Data Protection
			Regulations
2	10	Personal data	Increase the understanding of
			what is personal data and why
			it is so important
3	10	Case Study	Describe the impacts of a
			multinational company
			breaking GDPR

6.4.7.2. Follow-up activity

Students can move on to the next course.

6.4.8. Privacy and Trust

Privacy and Trust are very importance issues in a digital world and largely linked with the concepts of computer security. Learners will be introduced to the basic concepts of privacy and trust and discover when/how these are important in all types of digital business.

6.4.8.1. Learning outcomes of the course

The learner should know the difference between privacy and trust and understand how they are linked to computer security. Should understand why customers digital privacy is so important and why they data is potentially so lucrative to business and criminals alike.





















Number	Duration (min.)	Activity description	Intended outcome
1	8	Data Privacy and why	Outline what data privacy is and
		does it matter?	why it is important
2	7	Data protection	Comprehend the differences
		versus data privacy	between data protection and
			data privacy
3	5	Trust in the modern	Describe what Trust is and
		age	outline the four relevant types of
			trust that are relevant when using
			digital technologies.

6.4.8.2. Follow-up activity

The courses in module 6, will continue with the final exam.











