Ministry of Higher Education and Scientific Research

Syrian Virtual University



الجمهورية العربية السورية

وزارة التعليم العاليي والبحث العلمي

الجامعة الافتراضية السورية

Course Syllabus

1- Basic Information:

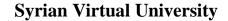
Course Name	New Product Development
Course ID	NPD
Contact Hours (Registered Sessions)	24
Contact Hours (Synchronized Sessions)	24
Mid Term Exam	_
Exam	1h15min
Registered Sessions Work Load	24
Synchronized Session Work Load	24
Credit Hours	6

2- Pre-Requisites: No pre-requisite is needed.

3 - Course Objectives:

The aim of this course is to introduce the main concepts of development and release new products or Successful services. Successful innovations guarantee competition ability of the new product or the developer to win high marketing shares and guarantee the continuous development. The student will learn Implementation of product development strategies and take into account all the factors that increase the desired success rate of the product and the production enterprise. As a part of the technology management program, the course helps managers, technicians and

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executives involved in the development of new products (both products and services) and develops the innovation process in the enterprise as well as managing the process of developing new products and studying the technology strategy applied to achieve product or service competitiveness through the development of new products.

Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes
ILO1	New Product Development and management
ILO2	Technology Strategy for New Product Development
ILO3	Prediction, Preference, And Idea Markets
ILO4	Creativity In New Product Development
ILO5	Resource Allocation And New Product Development
ILO6	Product Development Performance Measurement

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4- Course content (15 hours of synchronized sessions)

Chapter Number	Chapter Title	Summary	ILO
1	New Product Development 1 - Introduction 2 - Preparing 3 - Starting 4 - Progressing 5 - Achieving		ILO1
2	Managing New Product Development	1- What Is New Product Development? 2- Viewing NPD In An Evolutionary Framework 3- An Overview of NPD Theories In The Evolutionary	ILO1
3	Technology Strategy for New Product Development	1.Intruduction 2. Technology Strategy At The Industry Level 2.1. Technology And The Ecology Of An Industry 2.2. Technology And The Product Life Cycle 3. Technology Strategy At The Company Level 4. Technology Strategy In Operations Management	ILO1

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5. Dynamic And Emerging Strategy 6. Partnerships And Global Networks 1. Competitive Market Structure And New Product Opportunities 1.1 a Framework For Maximizing Profits Through New Product Positioning 1.2 New Product Locations And The Degree Of Market 1.3 Additional Considerations And Comments 2. Industry Position, Market Evolution, And NPD Strategy 2.1 The Nature Of Competition With New Products And Industry Evolution 2.2. Incentives To Undertake R&D And Industry Position 1 Definition Of Innovation 2 Determinants Of Innovation: Internal Characteristics Of Enterprise 3 Determinants Of Innovation: External Characteristics 4 The Process Perspective To Innovation 5 Definition, Taxonomy And Perspectives Of Innovation 1 The Method 1 LO2			5 Dynamic And Emerging Strategy	
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			5- Definition, Taxonomy And Perspectives	
6 Business 1- The Method ILO2			Of Innovation	
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	Mothodologyin	2. The Knowledge Con	
	Methodologyin 2- The Knowledge Gap		
	(NPD)	3- Case Study Design	
		4- The Research Process	
		5- The Case Study Companies	
		6- Data Collection	
		7- Data Analysis	
		1- Chief Components Of The Innovation	
	Innovation In Case	Process	
7	Study Companies	2- Determinants Of NPD Innovation	ILO3
		3- Key Concepts Emerging From The Case	
		Studies	
		1- Design And Development	
		2- Product Design	
0	Economic Models	3- Differentiation	
8	Of Product	4- Product Family Design Under Horizontal	ILO3
		5- Product Family-Based Component	
		Selection	
		Innovation	
	Keeping Up With	1 Introduction	
	The Customer	2 The Voice Of The Virtual Customer	
9	Social Media	3 The Social Media Phenomenon	ILO3
	Applications In	4 Social Media In New Product	
	Product	Development	
		5 Success Factors	
10	Users, Experts, And	1- Design Theory	ILO3
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	Institutions In The	2- Design Grammars	
	Product Design	3- Enabling Processes And Technologies	
		4- Project Risk Management In New	
		Product Development	
		5- A Model Of Management	
		6- Approaches To Project Risk	
		Management	
		7- New Service Development	
		1 Introduction	
		2 Virtual Stock Markets In Corporations:	
	5	Prediction, Preference, And Idea Markets	
	Prediction,	3 How Well Do Prediction, Preference, And	
11	Preference, And Idea Markets Work In Corporations		ILO3
	ldea Markets	4 Implementing A Stock Market In	
		Corporations	
		5 Choosing A Virtual Stock Market Software	
		Platform	
	Creativity In New	1 The Variation Stage: Generating New	
1.0	Product	Ideas	
12	Development	2 Socio-Psychological Perspectives	ILO4
		3 The Selection And Retention Stages	
	Resource Allocation	1. Portfolio Management	
13	And New Product	2. A Theoretical Framework For NPD	
	Development	Portfolio	ILO5
	·	3. Management	

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		4. NPD Project Selection At The	
		Tactical Level	
	Organization Design	1. The Formal Organizational Structure	
14	For New Product	2. Functional Organization	ILO5
14	Development	3. Project Organization	1203
		4. Project Matrix Organization	
	Product	1. The Roles, Customers, And	
		Challenges Of NPD Performance	
1.5	Development	Measurement	ILO6
15	Performance	2. Framing NPD Metrics	
	Measurement	3. The State Of NPD Performance	
		Measurement	
		1. Why Testing Strategies Matter	
	Learning Dv	2. Testing, Experimentation, And	
	Learning By Experimentation: Prototyping And	Uncertainty	
16		3. Managerial Choices For Testing And	ILO6
		Prototyping	
	Testing	4. Example: New Product Development	
		In Scotland	

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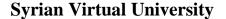
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5- Assessment Criteria (Related to ILOs)

ILO codes	Intended Learning Outcomes To achieve ILO the student should be able to:	Home work	Synchronized Sessions	Exam
ILO1	New Product Development and management	*	*	*
ILO2	Technology Strategy for New Product Development	*	*	*
LO3	Prediction, Preference, And Idea Markets	*	*	*
ILO4	Creativity In New Product Development		*	*
ILO5	Resource Allocation And New Product Development		*	*
ILO6	Product Development Performance Measurement	*	*	*

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6- Practice Tools

No Practice Tools

7- Main References

- ✓ All content of the course can be downloaded from Moodle course page as Pdf files and registered sessions.
- ✓ Synchronized sessions.

8- Additional References

- 1) Vijay Vyas, Low-Cost, Low-Tech Innovation, New Product Development In The Food Industry, Routledge, 2015.
- 2) Abbie Griffin, Charles Noble, Serdar Durmusoglu, Open Innovation New Product Development Essentials From The PDMA, John Wiley & Sons, 2014.
- 3) Christoph H. Loch, Stylianos Kavadias, Handbook Of New Product Development Management, Butterworth-Heinemann, 2008.
- 4) Kenneth B. Kahn, The PDMA Handbook Of New Product Development, John Wiley & Sons, 2013.
- 5) Kenneth B. Kahn, **The PDMA Handbook Of New Product Development**, Second Edition, John Wiley & Sons, **2005**.