

Syrian Arab Republic	 الجامعة الافتراضية السورية SYRIAN VIRTUAL UNIVERSITY	الجمهورية العربية السورية
Ministry of Higher Education and Scientific Research		وزارة التعليم العالي والبحث العلمي
Syrian Virtual University		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. Introduction 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	
4	Competitive Positioning Through New Product Development	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	ILO2
5	Business Innovation in (NPD)	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	ILO2
6	Business	1- The Method	ILO2

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	Methodology in (NPD)	2- The Knowledge Gap 3- Case Study Design 4- The Research Process 5- The Case Study Companies 6- Data Collection 7- Data Analysis	
7	Innovation In Case Study Companies	1- Chief Components Of The Innovation Process 2- Determinants Of NPD Innovation 3- Key Concepts Emerging From The Case Studies	ILO3
8	Economic Models Of Product	1- Design And Development 2- Product Design 3- Differentiation 4- Product Family Design Under Horizontal 5- Product Family-Based Component Selection	ILO3
9	Keeping Up With The Customer Social Media Applications In Product	Innovation 1 Introduction 2 The Voice Of The Virtual Customer 3 The Social Media Phenomenon 4 Social Media In New Product Development 5 Success Factors	ILO3
10	Users, Experts, And	1- Design Theory	ILO3

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	Institutions In The Product Design	2- Design Grammars 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	
11	Prediction, Preference, And Idea Markets	1 Introduction 2 Virtual Stock Markets In Corporations: Prediction, Preference, And Idea Markets 3 How Well Do Prediction, Preference, And Idea Markets Work In Corporations 4 Implementing A Stock Market In Corporations 5 Choosing A Virtual Stock Market Software Platform	ILO3
12	Creativity In New Product Development	1 The Variation Stage: Generating New Ideas 2 Socio-Psychological Perspectives 3 The Selection And Retention Stages	ILO4
13	Resource Allocation And New Product Development	1. Portfolio Management 2. A Theoretical Framework For NPD Portfolio 3. Management	ILO5

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		4. NPD Project Selection At The Tactical Level	
14	Organization Design For New Product Development	<ol style="list-style-type: none"> 1. The Formal Organizational Structure 2. Functional Organization 3. Project Organization 4. Project Matrix Organization 	ILO5
15	Product Development Performance Measurement	<ol style="list-style-type: none"> 1. The Roles, Customers, And Challenges Of NPD Performance Measurement 2. Framing NPD Metrics 3. The State Of NPD Performance Measurement 	ILO6
16	Learning By Experimentation: Prototyping And Testing	<ol style="list-style-type: none"> 1. Why Testing Strategies Matter 2. Testing, Experimentation, And Uncertainty 3. Managerial Choices For Testing And Prototyping 4. Example: New Product Development In Scotland 	ILO6

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5- Assessment Criteria (Related to ILOs)

ILO codes	Intended Learning Outcomes	Home work	Synchronized Sessions	Exam
	To achieve ILO the student should be able to:			
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**.