

## Syllabus

### 1. Information about the **Module 7**

1.1 University	University of Piraeus
1.2 Team	Library team
1.3 Trainer_Name	????
1.3 Degree level	

### 2. Information about the course

Module title	<b>"Application areas of 3D Printing"</b>
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### 3. Time budget

3.1 Number of hours	<b>3 h</b>	divided in:	Lecture	<b>100 mins</b>	Laboratory/Project	<b>80 mins</b>
3.2 Time budget distribution (hours) for individual activity:						
(a) Individual study (course, obligatory bibliography, etc.)						1
(b) Additional documentation (recommended bibliography, etc.)						0.5
(c) Preparation for seminary/laboratory/project activities						0.5
(d) Peer learning						0
(e) Exam preparation						0
(f) Other activities						0
3.3 Total individual study (sum (3.7(a)...3.7(f)))				<b>2 h</b>		
3.4 ECTS credits				<b>0.2</b>		

### 4. Preconditions

4.1 curriculum	Librarian
4.2 competences	Space vision, technical skills, computer using knowledge

### 5. Course requirement

5.1. for lecture	Lecture room with video projector, laptop
5.2. for seminary/ laboratory/ project	Laboratory room with video projector, laptop, 3D printers

### 6. Gained competences

Professional competence	<ul style="list-style-type: none"> <li>1. Explaining concepts and specific processes on the various applications that 3D printing is used.</li> <li>2. Develop technical execution on using the 3D printing.</li> <li>3. Competences in organizing new services in libraries</li> <li>4. Competences in managing Makerspaces in libraries</li> </ul>
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Transversal competenc	<ol style="list-style-type: none"> <li>1. Familiarity with specific 3D printing options.</li> <li>2. Familiarity with new business models in libraries</li> </ol>
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## 7. Course objective

7.1 General objective	Presenting the various kinds of the applications of the 3D printing process.
7.2 Specific objectives	<p>Learners should be able to understand how 3D printing is used to:</p> <ol style="list-style-type: none"> <li>1. the Arts;</li> <li>2. the Blind people;</li> <li>3. the Healthcare and Medicine;</li> <li>4. the Education;</li> <li>5. the Fashion;</li> <li>6. the Entertainment and Broadcasting.</li> </ol>

## 8. Contents

8.1 Lecture	Hours	Teaching methods	Observation
<b>"Application areas of 3D Printing"</b>	100		
1.1 The 3D Printing in Arts	15 mins	Video projector exposure methods, whiteboard explanations and discussions	
• Paradigms and Best practices			
1.2 The 3D Printing as supporting tool for the Blind people	15 mins		
• Paradigms and Best practices			
1.3 the 3D Printing in the Healthcare and Medicine;	15 mins		
• Paradigms and Best practices			
1.4 the 3D Printing in the Education	15 mins		
• Paradigms and Best practices			
1.5 the 2D printing in the Fashion	15 mins		
• Paradigms and Best practices			
1.6 the 3D printing in Food	15 mins		
• Paradigms and Best practices			
1.7 Social and individual benefits	10 mins		
8.2 Seminary / Laboratory / Project	Hours 80	Teaching methods	Observation

<b>"Application areas of 3D Printing"</b>			
1.1 The 3D Printing in Arts	10 mins	Video projector exposure methods, whiteboard explanations and discussions	
• Paradigms and Best practices			
1.2 The 3D Printing as supporting tool for the Blind people	15 mins		
• Paradigms and Best practices			
1.3 The 3D Printing in the Healthcare and Medicine;	15 mins		
• Paradigms and Best practices			
1.4 The 3D Printing in the Education	10 mins		
• Paradigms and Best practices			
1.5 The 3D printing in the Fashion	15 mins		
• Paradigms and Best practices			
1.6 The 3D printing in Food	15 mins		
• Paradigms and Best practices			
3 Bibliography:			
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	<a href="https://www.scribd.com/document/394542061/3D-Printing-the-Definitive-Guide">https://www.scribd.com/document/394542061/3D-Printing-the-Definitive-Guide</a>		
2.	3D_Printing_Handbook-Sample.pdf	from	3DHub.
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3.	Vincent F. Scalfani & Josh Sahib. "A Model for Managing 3D Printing Services in Academic Libraries." Vol. 72, no. 72, 2013, p. 10. <a href="http://istl.org/13-spring/refereed1.html">http://istl.org/13-spring/refereed1.html</a>		
4.	Nowlan, Gillian Andrea. "Developing and Implementing 3D Printing Services in an Academic Library." Library Hi Tech, vol. 33, no. 4, 2015, pp. 472–479. <a href="https://www.emerald.com/insight/content/doi/10.1108/LHT-05-2015-0049/full/pdf?casa_token=72cCxlnDE2EAAAAA:BoaGEY34VCSxqVif6eggBT5Ap-7s8jBhzZblOxCOP4wLHuXVnY3I2jhSRA2jvRqQLDjEowp3Tu9OgK7D6Ots-WDmm8LYQV939h3NLhxQ2hdW_uXuNcw">https://www.emerald.com/insight/content/doi/10.1108/LHT-05-2015-0049/full/pdf?casa_token=72cCxlnDE2EAAAAA:BoaGEY34VCSxqVif6eggBT5Ap-7s8jBhzZblOxCOP4wLHuXVnY3I2jhSRA2jvRqQLDjEowp3Tu9OgK7D6Ots-WDmm8LYQV939h3NLhxQ2hdW_uXuNcw</a>		
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6.	Moorefield-Lang, Heather Michele. "Makers in the Library: Case Studies of 3D Printers and Maker Spaces in Library Settings." Library Hi Tech, vol. 32, no. 4, 2014, pp. 583–593. <a href="https://scholar.google.com/scholar_url?url=https://www.emerald.com/insight/content/doi/10.1108/LHT-06-2014-0056/full/pdf%3Fcasa_token%3DAiiB1Tz4BqAAAAA:V_72S-jGcThky0dfcSu_Jss-4D1TM8wPdRIhzJOuxflZ6rO77dhP7u0kRdQULB22QHxbplBwUH0aGeEswonQ4zYJUbz4CjnCOFk00K_txDSISr32heQ&amp;hl=el&amp;sa=T&amp;oi=ucasa&amp;ct=ucasa&amp;ei=edHcYJDclYJcmwG3s6r4Cg&amp;scisig=AAGBfm3uxj1_4BNm6P-ITtGawleUBBpk0w">https://scholar.google.com/scholar_url?url=https://www.emerald.com/insight/content/doi/10.1108/LHT-06-2014-0056/full/pdf%3Fcasa_token%3DAiiB1Tz4BqAAAAA:V_72S-jGcThky0dfcSu_Jss-4D1TM8wPdRIhzJOuxflZ6rO77dhP7u0kRdQULB22QHxbplBwUH0aGeEswonQ4zYJUbz4CjnCOFk00K_txDSISr32heQ&amp;hl=el&amp;sa=T&amp;oi=ucasa&amp;ct=ucasa&amp;ei=edHcYJDclYJcmwG3s6r4Cg&amp;scisig=AAGBfm3uxj1_4BNm6P-ITtGawleUBBpk0w</a>		

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Evaluation at the end of the course