

ABS414 – Entrepreneurship Theory in Biomedical Sciences

Course Title	Entrepreneurship Theory in Biomedical Sciences			
Course Code	ABS414			
Course Type	Elective			
Level	Bachelor (Level 1)			
Year / Semester	5 th and 7 th semester			
Teacher's Name	Dr Athanasia Nalmpanti			
ECTS	6	Lectures / week	3	Laboratories/week
Course Purpose	<p>This course provides students with an in-depth understanding of entrepreneurship in the context of biomedical sciences. This course aims to equip students with the knowledge and skills necessary to identify, evaluate, and develop new business opportunities in the biomedical field. It will cover essential entrepreneurial concepts, strategies for starting and managing a business, and practical approaches to commercializing biomedical innovations. The course will also address the unique challenges and opportunities associated with entrepreneurship in the biomedical sector.</p>			
Learning Outcomes	<p>By the end of the lesson, the student will be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate a comprehensive understanding of entrepreneurial concepts and principles as they apply to the biomedical sciences. 2. Identify and assess potential business opportunities in the biomedical field. 3. Develop detailed business plans for new ventures, including market analysis, financial projections, and operational strategies. 4. Understand the process of securing funding and investment for biomedical startups. 5. Apply knowledge of intellectual property rights and regulatory considerations in the development and commercialization of biomedical products. 6. Evaluate the ethical and social implications of entrepreneurial activities in the biomedical sciences. 7. Develop strategies for effective leadership and management in a biomedical entrepreneurial setting. 8. Describe how free enterprise economies work and how entrepreneurs fit into them. 9. Describe benefits and drawbacks of owning a small business. 10. Know what a feasibility analysis is and when to create one. 			

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| | <ol style="list-style-type: none">11. Articulate core beliefs, mission, and vision12. Analyze your competitive advantage13. Perform viability testing using economics of one unit.14. Choose your market segment and research it. |
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	<ol style="list-style-type: none"> 11. Position your product or service within your market. 12. Combine the four P's – product, price, place, promotion – into a marketing mix. 13. Choose the attributes of your product or service 14. Price your product 15. Identify the critical components of the marketing plan. 16. Use breakeven analysis to evaluate your marketing plan. 17. Identify investment required for a business startup 18. Describe the variable costs of starting a business 19. Analyze your fixed operating costs and calculate gross profit. 20. Understand an income statement 21. Examine the balance sheet to determine a business's financing strategy 22. Perform a financial ratio analysis of an income statement 23. Calculate return on investment 24. Read a cash flow statement 25. Compare the pros and cons of debt and equity financing. 		
Prerequisites	None.	Co-requisites	None.
Course Content	<ul style="list-style-type: none"> • Entrepreneurs recognize opportunities <ul style="list-style-type: none"> ○ Entrepreneurship defined ○ Why be an entrepreneur? ○ Benefits and costs of becoming an entrepreneur ○ Opportunity recognition ○ Paths to small business ownership • Business plan: road map to success <ul style="list-style-type: none"> ○ Feasibility analysis: will my idea work? ○ Product/service feasibility ○ Market/industry feasibility ○ Financial feasibility ○ Business plan components • Creating business from opportunity 		

	<ul style="list-style-type: none"> ○ Your competitive advantage ○ Feasibility revisited: the economics of one unit ○ Determining the value of a business ● Integrated marketing <ul style="list-style-type: none"> ○ Exploring your market ○ Developing the right marketing mix and plan ○ Smart selling and effective customer service ● Show me the money: finding, securing and managing it <ul style="list-style-type: none"> ○ Understanding and managing start-up, fixed and variable costs ○ Using financial statement to guide a business ○ Cash flow and taxes ○ Financing strategy
Teaching Methodology	<p>The course material is delivered to the students by means of lectures, conducted with the help of power point presentations and short videos. Case studies are analysed and discussed in class.</p> <p>Power point presentations used in class, lecture notes, some of the case studies are available to the students on the e-learning platform.</p>
Bibliography	<p><u>Textbooks:</u></p> <p>Yock, P.; Zenios S.; Makower J., Brinton T.; Kumar, U.; Watkins J. Biodesign: The Process of Innovating Medical Technologies, 2ND Edition, 2015, Cambridge University Press</p> <p><u>References:</u></p> <p>Mariotti S., Glackin C. Entrepreneurship: starting and operating a small business, 3rd Edition, Pearson, 2013.</p> <p>Scarborough N., Cornwall J., Entrepreneurship and effective small business management, 11th Edition, 2015, Pearson.</p>
Assessment	<p><u>(a) Methods:</u> Students will be assessed with coursework that involves two midterm tests and a final exam.</p> <p><u>(b) Weights:</u></p> <ul style="list-style-type: none"> ● Two mid-term tests 40% ● Final exam 60% <p><u>(c) Criteria:</u> The assessment criteria are assignment-specific and range from testing problem solving skills, knowledge of the material, and originality of the business ideas.</p> <p><u>(c) Weights:</u></p>



	Case study: 10% Mid-term exam: 30% Final exam: 60%
Language	Greek / English.