

## Subject Description Form

<b>Subject Code</b>	ABCT5109
<b>Subject Title</b>	Entrepreneurship: From Lab to Launch
<b>Credit Value</b>	3
<b>Level</b>	5
<b>Pre-requisite</b>	Nil
<b>Co-requisite</b>	Nil
<b>Exclusion</b>	Nil
<b>Objectives</b>	<ol style="list-style-type: none"><li>1. Equip students with the skills to translate complex scientific research into commercially viable business ideas, recognizing the potential of research projects.</li><li>2. Provide students with the knowledge and tools to develop, refine, and present a comprehensive business plan that encapsulates market analysis, financial projections, and strategic operations.</li><li>3. Introduce students to various funding opportunities, emphasizing the process and requirements of the ITC ESS application, while highlighting the importance of securing capital for startup ventures.</li><li>4. Cultivate the ability to persuasively communicate business ideas to diverse stakeholders, especially potential investors, through elevator pitches and detailed presentations.</li></ol>
<b>Intended Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"><li>a) Gain experience at converting scientific findings from research projects into actionable business ideas, demonstrating an understanding of both the scientific and commercial angles.</li><li>b) creating and refining a holistic business plan, showcasing expertise in market research, financial forecasting, and operational strategy formulation.</li><li>c) handle various funding platforms, particularly mastering the ITC ESS application process, reflecting a deep understanding of the nuances of securing startup capital.</li><li>d) excel in articulating their business ideas persuasively, evidenced by compelling elevator pitches and comprehensive presentations tailored for diverse audiences, especially potential investors.</li></ol>

<p><b>Subject Synopsis/ Indicative Syllabus</b></p>	<p>This course provides a comprehensive overview of the key topics and areas of study within the course. It offers both a theoretical foundation and practical insights to guide students on their entrepreneurial journey in the biotech industry.</p> <p><b>Introduction to Biobusiness and Entrepreneurship</b></p> <ul style="list-style-type: none"> <li>- The intersection of science and business</li> <li>- Historical case studies of successful biotech startups</li> <li>- The role of innovation in the biotech industry</li> </ul> <p><b>Grouping and Project Selection</b></p> <ul style="list-style-type: none"> <li>- The importance of team dynamics in startups</li> <li>- Introduction to available PI projects</li> <li>- Criteria for project selection and commercial viability assessment</li> </ul> <p><b>Business Plan Writing and Strategy</b></p> <ul style="list-style-type: none"> <li>- Components of a business plan: Executive Summary, Market Analysis, Operations, Financial Projections, etc.</li> <li>- Strategy formulation: Porter's Five Forces, SWOT analysis, and Blue Ocean Strategy</li> <li>- Case studies: Successful and failed biotech business plans</li> </ul> <p><b>Developing a Business Model</b></p> <ul style="list-style-type: none"> <li>- Introduction to the Business Model Canvas</li> <li>- Value proposition, customer segments, revenue streams, and other key components</li> <li>- Real-world examples of biotech business models</li> </ul> <p><b>ITC ESS Application and Other Funding Mechanisms</b></p> <ul style="list-style-type: none"> <li>- Overview of ITC ESS and its significance</li> <li>- Crafting a compelling funding application</li> <li>- Alternative funding sources: venture capital, angel investors, and crowdfunding</li> </ul> <p><b>Pitching Skills Workshop</b></p> <ul style="list-style-type: none"> <li>- The art of the elevator pitch</li> <li>- Presentation skills for varied audiences</li> <li>- Role-playing and pitch simulations</li> </ul> <p><b>Elevator Pitch, Final Presentation, and Course Wrap-Up</b></p> <ul style="list-style-type: none"> <li>- Refining and perfecting the elevator pitch</li> <li>- Preparing for the final course presentation</li> <li>- Reflecting on learnings and feedback</li> </ul>
<p><b>Teaching/Learning Methodology</b></p>	<p>Lectures, Tutorials, Assignments, Group Projects, and Presentations</p> <ol style="list-style-type: none"> <li>1. Individual Assignments – Students will be given the challenge of drafting patent applications based on selected biotech innovations or concepts. These patent drafts will be evaluated on the clarity of description, thoroughness in detailing the innovation, and adherence to standard patent application protocols. In addition to technical accuracy, students are expected to demonstrate their understanding of the commercial implications and potential challenges of the patented biotech solution. By undertaking this assignment, students will showcase their ability to not only understand but also effectively communicate complex biotech innovations in a legally robust and commercially insightful manner.</li> </ol>

	<p>2. Group Project - Teams will begin their collaborative venture by drafting a comprehensive business plan, reflecting a deep understanding of the biotech market landscape, financial forecasting, and strategic positioning. Building on this foundation, they will then prepare an ESS application for their chosen biotech concept, showcasing a keen understanding of funding requirements and the ability to present their idea compellingly to potential investors. The final leg of this journey involves crafting an elevator pitch, distilling the essence of their project into a concise and persuasive presentation, demonstrating their skills in effective communication and the art of persuasion. Through these successive projects, groups will exhibit their collective expertise in weaving together the intricate fabric of science, business, and finance in the biotech startup ecosystem.</p> <p>3. Group Presentation - Concluding the course, the Final Presentation will encapsulate students' journey from concept ideation to strategic planning. Teams will present their biotech projects, reflecting on the knowledge gained and challenges faced. This isn't just a showcase of their academic feats, but also a narrative of their collaborative experiences and personal growth. Beyond detailing their projects, students will share insights on teamwork, problem-solving, and the nuances of biotech entrepreneurship, demonstrating a blend of academic proficiency and real-world application.</p>
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<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	Specific assessment methods/tasks	% (weighting)	Intended subject learning outcomes to be assessed (Please tick as appropriate)			
			a	b	c	d
	1. Assignments	35	√	√	√	
	2. Group Project	25	√		√	√
	3. Group Presentation	40	√	√		√
	<b>Total</b>	<b>100 %</b>				
<p>Students are allowed to use GenAI tools to support their writing of and essays. If GenAI tools are used to support their essay writings, students must declare the use of such tools and how they have been used in the assessments. It should be noted that submitting a work generated by GenAI, in part or in whole, as your own (even in paraphrased form) constitutes an act of academic dishonesty; it is no different from asking another person to write your assignment or claiming others' ideas as yours.</p>						
<b>Student Study Effort Expected</b>	Class contact:					
	▪ Lecture		20 Hrs.			
	▪ Tutorial		19 Hrs.			
	Other student study effort:					

	▪ Assignment	30 Hrs.
	▪ Presentation	30 Hrs.
	▪ Project	15 Hrs
	Total student study effort	114 Hrs
<b>Reading List and References</b>	Matei, F., & Zirra, D. (Eds.). (2019). <i>Introduction to Biotech Entrepreneurship: A European Perspective</i> . Springer ISBN : 9783030221409	