

**DEREE COLLEGE SYLLABUS FOR: BMS 4650 CAPSTONE IN BIOMEDICAL SCIENCES****UK LEVEL: 6  
UK CREDITS: 15  
US CREDITS: 3/0/3****(Fall 2019)****PREREQUISITES:**

BI 1000 Introduction to Biology I  
 BI 1101 Introduction to Biology II  
 BI 3235 Cell and Molecular Biology  
 BI 3240 Human Anatomy and Physiology  
 MA 2025 Applied Statistics for Sciences  
 BMS 4545 Research Methods and ICT tools in Biomedical Sciences

**CATALOG DESCRIPTION:**

This course is the culmination of the work in Biomedical Sciences. It involves an individual research project and is designed to provide students with opportunities to research health and biomedical sciences issues from different perspectives. The project topics are selected from a broad spectrum of BMS areas.

**RATIONALE:**

This course is required for all biomedical sciences majors and represents the culmination of their work towards the degree. Students are expected to integrate all their acquired knowledge and skills in the course of this program and apply them in a specific setting. It provides an opportunity for senior students to demonstrate that they have met the learning outcomes of the Biomedical Sciences program.

**LEARNING OUTCOMES:**

As a result of taking this course, the student should be able to:

1. Demonstrate in-depth knowledge and understanding of a specific biomedical and health sciences topic.
2. Identify key elements and multiple aspects of biomedical sciences issues and apply appropriate knowledge and skills to their solution.
3. Select and apply a range of methods, including ICTs, to study and address biomedical and health issues.
4. Analyze data and information on a particular topic, critically evaluate their reliability, validity and significance, categorize, analyze and interpret them, and finally reformat and transform them towards a given purpose.
5. Demonstrate ability to integrate knowledge from previous courses in the whole research process towards a given purpose.
6. Communicate scientific information accurately and effectively in written, oral, visual and numerical formats in a style that suits the purpose and the audience, as well as produce detailed and coherent project reports.
7. Engage in independent study and self-evaluation, developing own criteria of judgment, taking responsibility for own work, while acting autonomously with some supervision or direction.

It should be noted that, in addition to the learning outcomes stated above, the course covers the majority (more than 75%) of all the learning outcomes of the program.

**METHOD OF TEACHING AND LEARNING:**

In congruence with the learning and teaching strategy of the college, the following tools are used:

- Regular meetings with instructor at different stages of the research project in which students receive feedback on their work. Each student is assigned a capstone supervisor depending on the topic selected. (It should be noted that students select the topic and make the proposal for their capstone project in BMS 3XXX Research Methods and ICT tools in Biomedical Sciences).
- Use of a Blackboard site, where the instructor posts information about the course, notes providing a theoretical background on

	<p>scientific writing, as well as general guidelines for preparing the project. Online interactive tools (e.g. journal, blog or discussion board) will be used. Instructors will provide feedback and share project-specific material with each individual student through Blackboard.</p> <ul style="list-style-type: none"> <li>• Independent research: literature review, collection of data and information, critical evaluation, analysis and synthesis.</li> <li>• Presentations of student projects and discussion. Students are required to present orally (defend) their capstone project.</li> </ul>						
<b>ASSESSMENT:</b>	<p><b>Summative:</b></p> <table border="1"> <tr> <td>Research project (6,500 - 7,000 words)</td> <td>100%</td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>• Project paper 85%</li> <li>• Oral defense 15%</li> </ul> </td> <td></td> </tr> </table> <p><b>Formative:</b></p> <table border="1"> <tr> <td>Regular meetings with instructor at different stages of research in which a student will receive feedback on his/her work.</td> <td>0</td> </tr> </table> <p>The student's research project tests all learning outcomes.</p>	Research project (6,500 - 7,000 words)	100%	<ul style="list-style-type: none"> <li>• Project paper 85%</li> <li>• Oral defense 15%</li> </ul>		Regular meetings with instructor at different stages of research in which a student will receive feedback on his/her work.	0
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<b>INDICATIVE READING:</b>	<p><b>Required Reading:</b> N/A</p> <p><b>Recommended Readings:</b> Recommended readings will depend on the topic chosen by each student.</p>						
<b>INDICATIVE MATERIAL:</b> (e.g. audiovisual, digital material, etc.)	<p><b>REQUIRED MATERIAL:</b> N/A</p> <p><b>RECOMMENDED MATERIAL:</b> N/A</p>						
<b>COMMUNICATION REQUIREMENTS:</b>	Verbal skills using academic/professional English						
<b>SOFTWARE REQUIREMENTS:</b>	Word, PowerPoint, Excel						
<b>WWW RESOURCES:</b>	As needed for the selected topic.						
<b>INDICATIVE CONTENT:</b>	N/A						