Course Title	Regenerative Medicine				
Course Code	BMS324				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 6th Semester				
Teacher's Name	TBA				
ECTS	6	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The main objective of the course is to provide an in-depth knowledge of the field of regenerative medicine, from basic biology of stem cells to therapeutic applications.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • describe different types of stem cells and their specific characteristics • describe methods of applications to replace damaged or destroyed cells including tissue engineering • account for regenerative medicine applications to human diseases • evaluate current methods within the research field, their practical execution and application				
Prerequisites	BMS111	Co-requisites	None		
Course Content	**Theory:** • current knowledge, future potential use and development of regenerative medicine • different kinds of stem cells (pluripotent stem cells, human embryonic stem cells, induced-pluripotent stem cells, neural stem cells, hematopoietic stem cells, mesenchymal stem cells, cord blood hematopoietic stem cells etc.) • tissue engineering and their applications in accelerating the healing process to restore injured or damaged tissues and organs • basic stem cell biology as well as cellular programming and reprogramming • clinical applications of stem cell therapies on diseases, such as e.g. Parkinson's, diabetes and cancer • stem cells gene therapy • biobanking of stem cells • ethical considerations in regenerative medicine				

Teaching Methodology	Face- to- face
Bibliography	Essentials of Stem Cell Biology, Robert Lanza and Anthony Altala, 2nd Edition, ISBN 13: 978-0123747297 Principles of Regenerative Medicine, Anthony Atala, Robert Lanza, James Thomson, and Robert Nerem, 2nd Edition, Academic Press, ISBN 9780123814227
Assessment	Mid – Term Examination 30% Final Examination 40% Assignments/Lab 20% Class Participation 10% 100%
Language	English