



Course Syllabus: Contemporary Topics in Bioscience - B 394B

Division	Biological and Environmental Sciences & Engineering Division
Course Number	B 394B
Course Title	Contemporary Topics in Bioscience
Academic Semester	Summer
Academic Year	2017/2018
Semester Start Date	06/10/2018
Semester End Date	08/09/2018
Class Schedule (Days & Time)	09:00 AM - 12:00 PM Sun Mon

Instructor(s)

Name	Email	Phone	Office Location	Office Hours
Jurgen Kosel	jurgen.kosel@kaust.edu.sa	+966128084360	3219, 3, Ibn Sina (bldg. 3)	Sun 9am

Teaching Assistant(s)

Name	Email
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Course Information

Comprehensive Course Description	The course covers recent research in the use of nanotechnology and devices in bioscience, including implantable devices, nanomaterials for bioengineering, nanomaterials for drug delivery, nanostructures for cell manipulations etc. The course consists of theory reviews and literature studies with weekly presentations and in-depth discussions of a special topic.
Course Description from Program Guide	
Goals and Objectives	<p>Understand the benefits and consequences of scaling down material/device dimensions.</p> <p>Understanding micro/nanofabrication concepts.</p> <p>Understanding the interactions of materials and cells.</p> <p>Understanding methods for nanomaterial-based drug delivery</p> <p>Develop a broad knowledge of nanodevices and microsystems for biomedical applications.</p> <p>Improve and develop proficiency of presentation skills.</p> <p>Improve and develop proficiency of discussion skills.</p>
Required Knowledge	Basic knowledge of Nanotechnology, Bioengineering, Chemical Engineering, Material Science, Electrical Engineering, Cell Biology.
Reference Texts	Recent papers for studying will be selected during the course of the semester
Method of evaluation	100.00% - Oral presentation
Nature of the assignments	Weekly reading assignments and presentations.

Course Policies	<p>-Students have to attend all lectures.</p> <p>-A missed presentation counts as 0% unless a medical report is produced.</p> <p>-In case of an excused miss a presentation will not count towards the average. If more than one presentation is missed, a make-up presentation needs to be given as soon as possible after the original presentation date.</p>
Additional Information	

Tentative Course Schedule

(Time, topic/emphasis & resources)

Week	Lectures	Topic
1	Sun 06/10/2018 Mon 06/11/2018	Literature material will be assigned during the course of the semester.
2	Sun 06/17/2018 Mon 06/18/2018	Literature material will be assigned during the course of the semester.
3	Sun 06/24/2018 Mon 06/25/2018	Literature material will be assigned during the course of the semester.
4	Sun 07/01/2018 Mon 07/02/2018	Literature material will be assigned during the course of the semester.
5	Sun 07/08/2018 Mon 07/09/2018	Literature material will be assigned during the course of the semester.
6	Sun 07/15/2018 Mon 07/16/2018	Literature material will be assigned during the course of the semester.
7	Sun 07/22/2018 Mon 07/23/2018	Literature material will be assigned during the course of the semester.
8	Sun 07/29/2018 Mon 07/30/2018	Literature material will be assigned during the course of the semester.
9	Sun 08/05/2018 Mon 08/06/2018	Literature material will be assigned during the course of the semester.
10		N/A
11		N/A
12		N/A
13		N/A
14		N/A
15		N/A
16		N/A
17		N/A
18		N/A

Note

The instructor reserves the right to make changes to this syllabus as necessary.