



Sungkyunkwan University (SKKU) International Summer Semester (ISS) 2019

Nanobiotechnology and Translational Science

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SHORT COURSE DESCRIPTION

Nanotechnology is an emerging field of science that is revolutionizing many parts of our daily lives. Many of the most powerful features of today's cell phones, computers, and GPS systems would not be possible without nanotechnology. The goal of this course is to introduce students—scientists and non-scientists alike—to practical issues of nanotechnology. We will be taking a broad-based learning approach that surveys a wide range of the latest advances in nanotechnology. After first introducing the principles of nanotechnology, we will begin to explore cutting-edge applications and also discuss how research is translated into these applications. Case study examples and industry site visits will complement the lectures in order to give students a broad perspective about not only what is known, but also what is possible.

READING MATERIALS

[PDF of Class Materials including Articles]

COURSE REQUIREMENTS AND GRADING

Grading Policy

Attendance: 20%

Case study report: 40%

Presentation: 40%

COURSE SCHEDULE

– WEEK I –

Thursday (27 June)

Principles of Nanotechnology

Friday (28 June)

Principles of NanoBiotechnology

– WEEK II –

Monday (1 July)

Case Study Examples of Nanotechnology Applications

Tuesday (2 July)

Case Study Examples of Nanotechnology Applications

Wednesday (3 July)

Industry Site Visits (Nanotechnology and Venture Park)

Thursday (4 July)

External speakers, and films

– WEEK III –

Monday (8 July)

External speakers, and films.

Tuesday (9 July)

External speakers, and films.

Wednesday (10 July)

Translational Science and Medicine

Thursday (11 July)

Case Study Examples of Translational Science and Medicine

– WEEK IV–

Monday (15 July)

Case Study Examples of Translational Science and Medicine

Tuesday (16 July)

Case Study Examples of Translational Science and Medicine

Wednesday (17 July)

Student Presentations

Thursday (18 July)

Student Presentations

Friday (19 July)

Student Presentations