



UNIVERSITY OF CALGARY

FACULTY OF SCIENCE
NANOSCIENCE PROGRAM
COURSE SYLLABUS FALL 2014

1. **Course:** Nanoscience 301, Introduction to Nanoscience and Nanotechnology
Time: 18:00 – 19:15
Days: Tuesday, Thursday
Room: SB 105

Instructors	Office	Tel. No.	E-mail address	Office hours
Dr. Max Anikovskiy	EEEL 237A	(403) 220-3115	m.anikovskiy@ucalgary.ca	By appointment
Dr. Simon Trudel	SB 417	(403) 210-7078	trudels@ucalgary.ca	By appointment
Dr. Elmar Prenner	BI 145A	(403) 220-7632	eprenner@ucalgary.ca	By appointment

Topics covered (tentative schedule):

Week number	Dates	Topic	
1	SEP 9, 11	Intro to NANS; the scientific method; science vs technology	
2	SEP 16, 18	Light-matter interactions: absorption, emission, colour	
3	SEP 23, 25	Quantum confinement effects; particle in a box	
4	SEP 30, Oct 2	Confinement in quantum corals and quantum dots	
5	OCT 7, 9	Tunneling; scanning tunneling microscopy	
6	OCT 14, 16	Scientific communication	
7	OCT 21, 23	Term test	Self-assembly: definition & energetics
8	OCT 28, 30	Self-assembly -1; microcontact printing*	Self-assembly -2
9	NOV 4, 6	Self-assembly -3	Self-assembly -4
10	NOV 11, 13	Reading day	Bio-systems
11	NOV 18, 20	Drug carriers-1	Drug delivery routes-1
12	NOV 25, 27	Drug delivery routes-2	Nanotoxicology
13	DEC 2, 4	Term paper work	Term paper work

DEC 5, 2014: end of classes, term paper is due

* This lecture includes a demo in EEEL 259, please bring safety goggles (and lab coat if you wish)

Program Director's Approval

Approved by Program Director

Date Approved by Program Director