



UNIVERSITY OF  
CALGARY

DEPARTMENT OF CHEMISTRY  
COURSE SYLLABUS  
WINTER 2015

**COURSE: CHEMISTRY 579 – Surface and Colloid Chemistry for Engineers**

LEC	DAYS	TIME	ROOM	INSTRUCTOR	OFFICE	PHONE	EMAIL	OFFICE HOURS
L01	MWF	10:00-10:50	A 142	Dr. V. Thangadurai	ES 656	210 8649	<a href="mailto:vthangad@ucalgary.ca">vthangad@ucalgary.ca</a>	TBA

Course website: Desire 2 Learn (D2L)

**TEXTBOOK** (Recommended): *"Physics and Chemistry of Interfaces"*, by H.J. Butt, K. Graf and M. Kappl., Wiley-VCH, 2006. ISBN: 13:978-3-527-40629-6

**TOPICS to be COVERED:**

1. Introduction –Interface Physical Chemistry and Importance
2. Liquid Interfaces – Young Laplace Equation, Kelvin Equation
3. Thermodynamics of Interfaces – Fundamental relations and applications.
4. Practical Applications of Interface Sciences – Electrochemistry and non-electrochemical aspects
5. Wetting, Contact Angle- Physical and Chemical Properties
6. Surfactants, Micelles, Emulsions and Foams
7. Experimental Techniques in Interface Science- Solid Surfaces, Adsorption

This course does not have a laboratory component.

Department Approval: Approved by Department Head

Date: December 1, 2014