



University of Pretoria Yearbook 2018

Physical chemistry 382 (CMY 382)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module content	Theory: Molecular quantum mechanics. Introduction: Shortcomings of classical physics, dynamics of microscopic systems, quantum mechanical principles, translational, vibrational and rotational movement. Atomic structure and spectra: Atomic hydrogen, multiple electron systems, spectra of complex atoms, molecular structure, the hydrogen molecule ion, diatomic and polyatomic molecules, structure and properties of molecules. Molecules in motion: Viscosity, diffusion, mobility. Surface chemistry: Physisorption and chemisorption, adsorption isotherms, surface tension, heterogeneous catalytic rate reactions, capillarity.
Module credits	18.00
Programmes	BSc Computer Science BSc Biochemistry BSc Chemistry BSc Geology BSc Human Physiology BSc Physics
Service modules	Faculty of Education
Prerequisites	CMY 282, CMY 283, CMY 284 and CMY 285
Contact time	1 discussion class per week, 2 practicals per week, 4 lectures per week
Language of tuition	Module is presented in English
Department	Chemistry
Period of presentation	Quarter 4

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