SFU Surrey Mechatronics Program Curriculum V14.2

Farid Golnaraghi – November 9, 2007

Semester	Courses					
1-1-FA 19 credit hours	**CHEM 120**-3 General Chemistry I	**MATH 151-3** Calculus I	**CMPT 128-3** Introduction to Computing Science and Programming for Engineers	**PHYS 140-4** Studio Physics: Mechanics and Modern Physics	**TECH 114-3** Technology in Everyday Contexts	**TECH 106-3** Spatial Thinking and Communicating
1-2-SP 19 credit hours	**MATH 232-3** Elementary Linear Algebra	**MATH 152-3** Calculus II	**PHYS 141-4** Studio Physics: Optics, Electricity and Magnetism	**ENSC 182-3** Mechatronics Design I	**TECH 101-3W** Collaborative Process	Complementary **Elective I**
1-C-SU	**Summer Year One** Optional Co-op					
2-1-FA 18 credit hours	**ENSC 281-3** Statics and Strength of Materials	**MATH 251-3** Calculus III	**ENSC 231-3** Engineering Materials	**ENSC 220-3** Electric Circuits I	**MATH 310-3** Introduction to Differential Equations	**Complementary Elective II**
2-2-SP 19 credit hours	**ENSC 282-3** Kinematics and Dynamics of Rigid bodies and Mechanisms	**ENSC 283-3** Introduction to Fluid Mechanics	**PHYS 231-3** Physics Laboratory II	**ENSC 226-4** Electronic Circuits	**ENSC 380-3** Linear Systems	**MACM 316-3** Numerical Analysis I
2-C-SU	**Summer Year Two** Mandatory Co-op					
3-1-FA 19 credit hours	**ENSC 382-3** Machine Design	**ENSC 381-3** Systems Modeling and Simulation	**ENSC 331-3** Introduction to MEMS	**ENSC 329-4** Introduction to Digital Logic	**PHYS 344-3** Thermal Physics	**ENSC 311-3** The Business of Engineering I: Fundamentals
3-C-SP	**Spring Year Three** Mandatory Co-op					
3-2-SU 19 credit hours	**ENSC 384-4** Mechatronics Design II	**ENSC 383-4** Feedback Control Systems	**ENSC 332-4** Microprocessors and Interfacing	**ENSC 312-3** The Business of Engineering II: Applications and Commercialization	**ENSC 387-4** Introduction to Electromechanical Sensors and Actuators	

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4-C-FA	**Fall Year Four** Mandatory Co-op					
4-1-SP 16 credit hours	**ENSC 451-4** Real Time and Embedded Systems	**ENSC 441-3** Capstone Design Technical Project	**ENSC 305-1** Project Documentation and Group Dynamics	**ENSC-4** Engineering Elective I	**ENSC-4** Engineering Elective II	
4-2-SU 17 credit hours	**ENSC 484-4** Industrial Control Systems	**ENSC 442-3** Capstone Design Technical Project	**ENSC 406-2** Engineering Laws and Ethics	**ENSC-4** Engineering Elective III	**ENSC-4** Engineering Elective IV	