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Summary of changes:

1) Eliminating an optional Co-op term in year three and therefore reducing the program duration to exactly four years (start in Fall year 1 and finish in Summer year four)
2) Moving the first mandatory Co-op term from spring of year two to summer of year two.
3) Replacing ENSC 489-4 Computer Aided Design and Manufacturing with a ENSC 4 credit Engineering Elective
4) Replacing ENSC 407-1 (Course cancelled!) with ENSC 406-2

From (2007/2008 Calendar P120)	To (2008/2009 Calendar)
Mechatronic Systems Engineering **Common Core**	**Mechatronic Systems Engineering** **Common Core**
Courses and Typical Schedule	**Courses and Typical Schedule**
Semester One (Fall Year 1) 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 19 credit hours	**Semester One (Fall Year 1)** 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 19 credit hours
Semester Two (Spring Year 1) MATH 232-3 Elementary Linear Algebra MATH 152-3 Calculus II PHYS 141-4 Studio Physics: Optics, Electricity and Magnetism Complementary Elective I ENSC 182-3 Mechatronics Design I TECH 101-3W Collaborative Process 19 credit hours	**Semester Two (Spring Year 1)** MATH 232-3 Elementary Linear Algebra MATH 152-3 Calculus II PHYS 141-4 Studio Physics: Optics, Electricity and Magnetism Complementary Elective I ENSC 182-3 Mechatronics Design I TECH 101-3W Collaborative Process 19 credit hours
Summer Year One Optional Co-op	**Summer Year One** Optional Co-op
Semester Three (Fall Year 2) ENSC 281-3 Statics and Strength of Materials MATH 251-3 Calculus III ENSC 231-3 Engineering Materials Complementary Elective II ENSC 220-3 Electric Circuits I MATH 310-3 Introduction to Differential Equations 18 credit hours	**Semester Three (Fall Year 2)** ENSC 281-3 Statics and Strength of Materials MATH 251-3 Calculus III ENSC 231-3 Engineering Materials Complementary Elective II ENSC 220-3 Electric Circuits I MATH 310-3 Introduction to Differential Equations 18 credit hours
Spring Year Two Mandatory Co-op	
Semester Four (Summer Year 2) ENSC 282-3 Kinematics and Dynamics of Rigid bodies and Mechanisms ENSC 283-3 Introduction to Fluid Mechanics ENSC 226-4 Electronic Circuits PHYS 231-3 Physics Laboratory II ENSC 380-3 Linear Systems MACM 316-3 Numerical Analysis I 19 credit hours	**Semester 4 (Spring Year 2)** ENSC 282-3 Kinematics and Dynamics of Rigid bodies and Mechanisms ENSC 283-3 Introduction to Fluid Mechanics ENSC 226-4 Electronic Circuits PHYS 231-3 Physics Laboratory II ENSC 380-3 Linear Systems MACM 316-3 Numerical Analysis I 19 credit hours

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From (2006/2007 Calendar P120)	To (2007/2008 Calendar)
Fall Year Three Mandatory Co-op	**Summer Year Two** Mandatory co-op
Term 5 (Spring Year 3) 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 19 credits	**Term 5 (Fall Year 3)** 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 19 credits
Summer Year 3 Optional Co-op	**Spring Year 3** Mandatory Co-op
Term 6 (Fall Year 4) 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 19 credits	**Term 6 (Summer Year 3)** 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 19 credits
Spring Year 4 Mandatory Co-op	**Fall Year 4** Mandatory Co-op
Term 7 (Summer Year 4) 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 489-4 Computer Aided Design and Manufacturing 16 credits	**Term 7 (Spring Year 4)** ENSC 451-4 Real Time and Embedded Systems ENSC 441-3 Capstone Design Technical Project ENSC 305-1 Project Documentation and Group Dynamics ENSC I-4 first Engineering elective ENSC II-4 second Engineering elective 16 credits
Term 8 (Fall Year 5) ENSC 484-4 Industrial Control Systems ENSC-4 Engineering Elective II ENSC-4 Engineering Elective III ENSC 407-1 Engineering Laws and Ethics ENSC 442-3 Capstone Design Technical Project 16 credits	**Term 8 (Summer Year 4)** ENSC 484-4 Industrial Control Systems ENSC III-4 third Engineering elective ENSC IV-4 fourth Engineering elective ENSC 406-2 Engineering Laws and Ethics ENSC 442-3 Capstone Design Technical Project 17 credits