**Study Abroad Histories (Unofficial)**

If you are planning to study abroad, your individual set of courses must be approved by the department. This guide is intended to give you an historical sense of the courses that have been approved for students to take to assist in your planning for study abroad. This guide is a work in progress! Please be sure to make an appointment with your advisor to discuss your plans.

Queen Mary, University of London

QM USC

DEN 5102 Solid Mechanics 4 AME 204 Strength of Materials

DEN 4108 Engineering Mechanics; Dynamics \*|\* AME 301 Dynamics

DEN 5108 \*|\* AME 302 Dynamic Systems

DEN 211 Vibr & Cntrl of Dynamic Systms\*\*\*1 \*\*\*\*\* AME 302 Dynamic Systems

DEN 7736 Modelling and Control of Mechanical SystemsJMM20173 AME 302 Dynamic Systems

DEN 5200 Control Systems Analysis and Design 4 AME 451 Linear Control Systems

DEN 107 Thermodynamics 1 \*|\* AME 310 Engineering Thermodynamics (may need to waive)

SBC 323 Biomolecules of Life *\*\*\** \*\*\*\*\* (not reviewed by BISC) BISC 320L Molecular Biology (may not be available to intl students)

BMD 123 Biomolecules of Life (renumbered) BISC 320L Molecular Biology (may need to waive)

SBS017 Basic Biochemistry \*\*\*\*\* BISC 330L Biochemistry

MAT 5222 Medical Physiology\*\*\*\*\*\*\* BME 403 Physiological Systems

DEN 328 Biomechanics\* BME 404 Biomechanics

DENM005 Biomechanics and Motion Analysis\* BME 404 Biomechanics

DEN 6311 Tissue Mechanics3 BME 404/BME 410 (Closer to BME 404, but ok for 410)

DEN 323 Tissue Engineering\* BME 410 Biomaterials and Tissue Engineering

MAT 800 Advanced Topics in Biomaterials\*\*\*\*\* BME 410 Biomaterials and Tissue Engineering

MAT 4004 Clinical Solutions in BME and Materials JMM20163 BME 410 Biomaterials and Tissue Engineering

DEN 214 Aspects of Medical Engineering 2 \* \*\*\*\*\* BME 414 Rehabilitation Engineering

DEN 424 Biomechanical Aspects of Rehab. Engineering\* BME 414 Rehabilitation Engineering

DEN 324 Principles & Apps of Medical Imaging\*\*\*\*\*\*\* BME 425 Intro to Biomedical Imaging

DEN 211 Vibrations and Control of Dynamic Systems CHE 460 Chemical Process Dynamics and Control

CHE 222 Organic Functional Group Chemistry\*\*\* † CHEM 322aL Organic Chemistry

CHEM3001: Synthesis & Mechanism in Organic Chemistry*\*\*\** † CHEM 322aL Organic Chemistry

CHE 222 Organic Functional Group Chemistry\* † CHEM 322bL Organic Chemistry

ELE 206 Circuit Design and Applications\* EE 200L or EE 202L Linear Circuits

ECS409U Analogue Electronic Systems JMM20173 EE 202 Linear Circuits

ECS411 Signals and Information\*\*\*\*\*\*\* EE 301L Linear Systems

PHY 222 Electromagnetic Waves and Optics\*\*\*2 \*\*\*\*\* PHYS 153L

SPA5222 Optics and Modern Physics (renumbered/retitled) PHYS 153L

DEN 117\*\*\*\*\* Technical Elective

DEN 322 Aspects of Medical Engineering 3\* Technical Elective

DEN 408 Robotics\*\*\*\*\*\*\*\* Technical Elective

DEN 437 Implant Design and Technology\* Technical Elective

DEN 6437 Implant Design (renumbered) Technical Elective

MAT 4002 Engineering Design Methods\*\*\*\*\*\*\* Technical Elective

DEN 4102 Engineering Mechanics: Statics\*\*\*\*\*\*\* Technical Elective

MAT 601 Manufacturing Process\*\*\*\*\*\*\* Technical Elective

DEN 6437 Implant Design (but concerned about level) \*\*\*\*\*\*\* Technical Elective

DEN 403 Comp Fluid Dynamics (concerned about level) \*\*\*\*\*\*\* Technical Elective

DEN 5300 Fluid Mech of CV Sys (concern about level) JMM20163 Technical Elective

DEN 4226 Practical Design Studio3 Technical Elective

MAT 6312 Science of Biocompatibility Technical Elective

DEN 7020 Medical Ethics and Regulatory Affairs Technical Elective

DEN 5002 Engineering Materials for Design Technical Elective

DENIED COURSES

DEN 205 \*\*\*\* AME 309

DEN 5300 Fluid Mechanics of the Cardiovascular SystemJMM20173 AME 309 (Concerned about difficulty)

DEN403 Computational Fluid Dynamics JMM20173 AME 309 (Concerned about difficulty)

SBS 118 \*\*\*\* (not reviewed by BISC) BISC 320L

BIO 241 Transmission Genetics BISC 320L

MTH751U Process on NetworksJMM20173 BME 402

SBS 202 Biomedical Physiology \*\*\*\*\*\* BME 403

MAT 104 Applied Biomedical Materials\*\* BME 410

MAT 312 Science of Biocompatibility \*\*\*\*\*\* BME 410

SBS 202 Biomedical Physiology II\*\* BME 403

DEN 107 Thermodynamics\*\*\*\*\*\*\*\*\* CHE 330

DEN 108 Dynamics \*\*\*\*\*\* CHE 460

DEN 109 Electrical Technology\*\* EE 202L

MAT 104 Applied Biomedical Materials\*\* MASC 310

MAT 203 \*\*\*\* MASC 310

MAT 206\*\*\*\* MASC 310

MAT 307 Innovation Strategy3 Tech Elec

PHY 107 \*\*\*\* PHYS 153L

DEN 423 Economic & Environmental issues \*\* Tech Elective

CHE 461Chemical Pharmacology\*\* Tech Elective

DEN 233 Low Speed Aerodynamics3 Tech Elec

DEN 307 Aerospace Structures3 Tech Elec

OTHER COURSES

MAT 100 (approved by Dr. Nutt for MASC 310, not reviewed by Dr. Khoo. Upper-div?)

MAT 102 (approved by Dr. Khoo for MASC 310, but not Dr. Nutt. Upper-div?)

DEN 101 (approved by Dr. Khoo, and AME advisor for AME 309. Upper-div?)

SBS501 Animal Physiology (approved by BISC as upper-division)

SBS 758 General Microbiology (approved by BISC as upper-division)

SBS 118 Cell Biology and Developmental Genetics (approved by BISC as upper-division)

SBS 008 Heredity and Gene Action (approved by BISC as upper-division)

SBS 019 Cell Dynamics (approved by BISC as upper-division)

*\* Approved by Dr. Khoo Fall 2008.*

*\**\* *Denied by Dr. Khoo Fall 2008*

*\*\*\* Approved by Dr. Khoo Fall 2009*

*\*\*\**\* *Denied by Dr. Khoo Fall 2009*

*\*\*\*\*\*Approved by Dr. Grzywacz Fall 2010*

*\*\*\*\*\*\*Denied by Dr. Grzywacz Fall 2010*

*\*\*\*\*\*\*\*Approved by Dr. Maby (EE) Fall 2015*

*\*\*\*\*\*\*\* Approved by Dr. Maarek Fall 2014*

*\*\*\*\*\*\*\*\* Approved by CSCI Fall 2015*

*\*\*\*\*\*\*\*\*\*Denied by Dr. Shing (CHE) Fall 2015*

*\*|\* Approved by AME spring 2016*

† *Reviewed by Dr. Ellern, CHEM department – not approved for equivalence (but accepted by BME)*

1 *Reviewed by Dr. Yang, AME department – not approved for equivalence (but accepted by BME)*

2 *Reviewed by Dr. Knol, PHYS – not approved for equivalence (but accepted by BME)*

3 Reviewed by Dr. Maarek 20162

4 Reviewed by AME 20162

University of Queensland Australia

UQ USC

MECH 2300 Structures and MaterialsAME173 AME 204

MECH 2410 Fundamentals of Fluid MechanicsAME173 AME 309 Dynamics of Fluids

CIVL 3130 Fluid Mechanics for Civil Engineers\* AME 309 Dynamics of Fluids

METR 3200 Introduction to Control Systems AME 451 Linear Control Systems

BIOL 1015 Human Biology\* BISC 120 Organismal Biology & Evolution

BIOL 1028 Cell & Tissue Biology\* BISC 220 Cell Biology & Physiology

BIOL 1040 Cells to Organisms 11 BISC 220 Cell Biology & Physiology

BIOL 2008 Cell & Developmental Biology \* 4 \*\* BISC 220 Cell Biology & Physiology

BIOL 1014 Molecular & Microbial Biology\* 1 BISC 320 Molecular Biology

BIOC 2000 Biochemistry & Molecular Biology JMM413 BISC 320 Molecular Biology

BIOC 3005 Molecular Systems Biology BISC 320 Molecular Biology

BIOL 3006 Molecular Cell Biology 8 12 BISC 320 Molecular Biology

BIOC 2012 Biochemistry: Molecular Components of Cells BISC 330 Biochemistry

BIOM 2011\*\*\*\* BME 403 Physiological Systems

BIOM2012 Systems Physiology JMM20181 BME 403 Physiological Systems

BIOM 2013\*\*\*\* BME 403 Physiological Systems

CHEE 2007 Modelling of Physiological Systems\*\*\* BME 403 Physiological Systems

BIOL 2630 Biomechanics JMM143 BME 404 Biomechanics

CHEE 4034\*\*\*\* BME 410 Biomaterials and Tissue Engineering

CHEE 4305 Biomaterials: Materials in MedicineJMM1081 BME 410 Biomaterials and Tissue Engineering

CHEE 3010 Engineering Investigation & Statistical Analysis BME 423 Statistical Methods in Biomedical Engineering

STAT 2004 Statistical Modeling & Analysis\* BME 423 Statistical Methods in Biomedical Engineering

STAT 1201\*\*\*\* BME 423 Statistical Methods in Biomedical Engineering

STAT 2203 Prob Models & Data Analysis for Eng JMM20181 BME 423 Statistical Methods in Biomedical Engineering

ELEC 3601\*\*\*\* BME 425 Biomedical Imaging

ELEC 4630 Image Processing and Computer Vision JMM143 BME 425 Biomedical Imaging

CHEE 3003 Process Engineering Thermodynamics\* CHE 330 Chemical Engineering Thermodynamics

ENGG 1050 Engineering Thermodynamics\* CHE 330 Chemical Engineering Thermodynamics

CHEE4020 Biomolecular Engineering JMM173 Possible sub for CHE 489

CHEM 1010 Organic Chemistry10 CHEM 322aL Organic Chemistry

CHEM 1030 Organic Chemistry9 CHEM 322aL Organic Chemistry

CHEM 2050 Chemical Reactions & Mechanisms 13 CHEM 322aL Organic Chemistry

CSSE 2000 Introduction to Digital Systems 7 EE 201 Introduction to Digital Circuits

CSSE 3000 Digital System Design\*\* EE 201 Introduction to Digital Circuits

 *-may be too advanced*

ELEC 2004 Circuits, Signals & Systems\* 2 \*\* 7 EE 202 Linear Circuits

 *-may be too advanced*

ELEC 3400 Electronic Circuits\* EE 202 Linear Circuits

PHYS 2810

ELEC 3300 Electrical Energy Conversion & Utilisation 2 EE 370 Electromechanics

MATE 1000 Physics & Engineering of Materials\* 3 MASC 310 Materials Behavior and Processing

MATH 3403 Partial Differential Equations\* MATH 245 Mathematics of Physics & Engineering

MATH 2011 Analysis of Partial Diff. Equations\* MATH 245 Mathematics of Physics & Engineering

MATH 2010 Analysis of Ordinary Diff. Equations\* MATH 245 Mathematics of Physics & Engineering

MATH 2100 Applied Mathematical Analysis\* MATH 245 Mathematics of Physics & Engineering

PHYS 1002 Electromagnetism, Optics, Relativity \*\* 5 PHYS 153L

ELEC 3401 Medical & Industrial Instrumentation\*\* Technical Elective

ELEC 4403\*\*\*\* Technical Elective

ELEC 7901\*\*\*\* Technical Elective (but not for BME 403)

ENGG 4900 Prof Practice & the Business EnvironmentJMM20182 Technical Elective (as long as no duplication with other tech elec)

CHEE 3305 Biomaterials: Materials in Medicine\*\* Technical Elective possible sub for BME 410

CHEE 4034 Cell & Tissue EngineeringJMM173 Technical Elective

CHEE4020 Biomolecular Engineering JMM173 Technical Elective (possible sub for CHE 489)

MECH2100 Machine Element Design JMM20181 Technical Elective

SCIE3220 Biomedical Science JMM173 Technical Elective

COURSES CONSIDERED BUT NOT APPROVED

CHEM 301113 CHEM 322a Organic Chemistry

MATH 2011 Analysis of Partial Differential Equations\*\* 6 MATH 445 Mathematics of Physics and Engineering II

MATH 3102 Methods & Models of Applied Mathematics\*\* 6 MATH 445 Mathematics of Physics and Engineering II

BIOM 2011 12 BISC 220

BIOL 2200 Cell Structure and Function12 BISC 320 Molecular Biology

BIOM 3014 Molecular & Cellular Physiology12 BISC 320 Molecular Biology

BIOC 1011 Molecular Basis of Life12 BISC 320 Molecular Biology

STAT 2202 Prob Models for Eng & ScienceJMM20181 BME 423

ENGG1300 Introduction to Electrical Systems EM20182 EE 202 Linear Circuits

\* Approved by Dr. Khoo Fall 2005 & Spring 2006

\*\* Approved by Dr. Khoo Fall 2007

\*\*\* Approved by Dr. Khoo Spring 2008

\*\*\*\* Approved by Dr. Grzywacz Fall 2013

1 Approved as upper-division course by Dr. Shugarman February 2006

2 Approved as equivalent by Dr. Choma February 2006

3 Approved as upper-division course by Dr. Nutt February 2006

4 Approved as equivalent by Jeff Tennis Fall 2007

5 Approved as equivalent by Robert Knol Fall 2007

6 Judged not equivalent by Dr. Lanski 2008-2009

7 Approved as equivalent by EE advisor Fall 2007

8 Approved by Dr. Shugarman Spring 2011

9 Judged not equivalent by Dr. Ellern, but approved by Dr. Grzywacz Spring 2011

10 This course replaced CHEM 1030 at UQ, which was approved by Dr. Grzywacz Spring 2011

11 Approved as equivalent by Dr. Herrera (BISC) Fall 2012

12 Judged as not equivalent by Dr. Herrera Fall 2012 – not reviewed by Dr. Grzywacz for BME content

13 Reviewed by Dr. Moore Fall 2012

AME173 Approved by AME department Fall 2017

JMM173 Approved by Dr. Maarek Fall 2017

University of Galway Ireland

UG USC

CE 213 Strength of Materials\* AME 204 Strength of Materials

ME 301 Fluid Dynamics\*\*\* AME 309 Dynamics of Fluids

EE 212 Biomedical Electronics and Instrumentation\*\* BME 302 Medical Electronics

SI317 Human Body Function with SI311 Neurophysiology\*\*\* BME 402 Cont & Comm and BME 403 Physiological Sys.

ME 416 Biomechanics\* BME 404 Biomechanics

BME 400 Biomechanics\*\*\* BME 404 Biomechanics

ME 321 Biomaterials\* (Full-year course – significant limitations) BME 410 Intro to Biomaterials & Tissue Engineering

ME 422 Tissue Engineering\* BME 410 Intro to Biomaterials & Tissue Engineering

BME 3126 Biomedical Design\*\*\* Tech Elective

IE 424 Operations Strategy\*\* Tech Elective

ME 322 Thermodynamics and Heat Transfer\* Tech Elective

ME 416 Biomechanics\* Tech Elective

ME 417 Biomedical Production & Environmental Services\* Tech Elective

ME 421 Medical Implant & Device Design\* Tech Elective

PA 405 Elements of Pathology Tech Elective

SU 405 Surgical Practice\*\* Tech Elective

COURSES CONSIDERED BUT NOT APPROVED

EE 131 Fundamentals of Electrical & Electronic Engineering\*\* EE 202 Linear Circuits

EE 222 Electrical Circuits & Systems\*\* EE 202 Linear Circuits

EE 302: II Electrical Power & Machines II\*\* EE 202 Linear Circuits

EE 409 Digital Signal Processing\*\* EE 202 Linear Circuits

\* Approved by Dr. Khoo Fall 2007

\*\* Reviewed by Dr. Grzywacz Fall 2011

\*\*\*Reviewed by Dr. Maarek Spring 2016

National University of Singapore (through Viterbi Exchange Program)

NUS USC

EE 2010 Systems and Control\* EE 200L

LSM 2102 Molecular Biology\* BISC 320L Molecular Biology

LSM 1401 Fundamentals of Biochemistry\* BISC 330L Biochemistry

BN 2401 Medical Electronics BME 302L Medical Electronics

BN3401 Biomedical Electronics and Systems\*\*\* BME 302L Medical Electronics

BN 4203 Rehabilitation Engineering\*\*\* BME 414 Rehabilitation Engineering

BN 2201 Quantitative Physiology for Bioengineers BME 403 Physiological Systems

BN 5202 Cell, Tissue, and Body Mechanics\*\*\* BME 404 Biomechanics

ME4253 Biomaterials Engineering\*\*\*\* BME 410 Biomaterials and Tissue Engineering

BN 5203 Advanced Tissue Engineering\*\*\* BME 410 Biomaterials and Tissue Engineering

ST2335 Statistical Methods\*\*\* BME 423 Statistical Methods in Biomedical Engineering

BN 5207 Medical Imaging Systems\*\*\* BME 425 Basics of Biomedical Imaging

BN5102 Biomedical Imaging BME 425 Basics of Biomedical Imaging

BN 4404 Biomicroelectromechanical Systems – BioMEMS\*\*\* BME 451 Fundamentals of Biomedical Microdevices

MA 2312 Differential Equations\* MATH 245

PC 1432 Physics IIe\* PHYS 152L

ME2103 Engineering Visualization & Modeling\*\*\*\* Technical Elective (ITP 308)

MT4003 Engineering Product Development\*\*\* Technical Elective

CN2122 Fluid Mechanics AME 309

BN2101 Bioengineering Data Analysis BME 423

ME2151 Principles of Mech Eng Materials MASC 310 (maybe AME 204?)

OTHER COURSES CONSIDERED

CM 2121 Organic Chemistry :: Was considered but not reviewed

LSM 1202 Human Anatomy :: Was not reviewed – not required for BME

BN 2201 Quantitative Physiology for Bioengineers (BME 403): May be approved - need syllabus for review

LSM1104 General Physiology (BISC 220L): NOT approved

LSM 2103 Cell Biology (BISC 220L): NOT approved (missing physiology)

BN 4201 Musculoskeletal Biomechanics (BME 404): NOT approved (not enough engineering)

BN 5201 Advanced Biomaterials (BME 410): NOT approved (not similar enough in content)

BN 2334 Probability and Statistics (BME 423): NOT approved

BN 2132 Mathematical Statistics (BME 423): NOT approved

EE1002 Intro to Circuits & Systems (EE 202): NOT approved (Reviewed by Dr. Maby 2015)

\* Approved by Dr. Khoo Fall 2009

\*\*\* Approved by Dr. Grzywacz Spring 2011

\*\*\*\*Approved by Dr. Maarek Fall 2015

Hong Kong University of Science & Technology (through Viterbi Exchange Program)

HKUST USC

CIVL 2120: Mechanics of Materials AME 204

MECH 2310: Thermodynamics AME 310 (Tech Elec)

LIFS 3240\*\* Introduction to Neurobiology BISC 421 (Free Elective, not for major)

ELEC 2200\* EE 101

ELEC 2400\* EE 202

ELEC 2100\* EE 301

ELEC 3500\* EE 338

ELEC 3400\* EE 348

ELEC 2300\* EE 357

PHYS 1411 + 1431\*\*\* PHYS 151

BIEN 3010 Tech Elective

DENIED COURSES

LIFS 1901 + 1903\*\* for BISC 120 (Content too remedial, no evolution)

LIFS 2040 + 2240\*\* for BISC 220 (Content too remedial, no animal physiology)

PHYS 1413 + 1433\*\*\* for PHYS 152 (Includes both PHYS 152 and 153 content, so coverage is too superficial)

\* Reviewed by Ed Maby & Mark Redekopp, EE department 20151

\*\* Reviewed by Dr. Herrera, BISC 20151

\*\*\* Reviewed by Dr. Gould, PHYS 20151

University of Edinburgh, Scotland

UE USC

CIVE08010 Structural Mechanics 2B\*\*\*\*\* AME 204

SCEE 08002 Structural Mechanics 2A\*\*\*\*\*\* AME 204

MECE08009 Dynamics 2\*\*\*\*\* AME 301

PHYS 08052 Intro Dynamics\*\*\*\*\*\* AME 301

MECE 09029 Computer Aided Eng\*\*\*\*\*\* AME 308

MECE09011 Fluid Mechanics (Mechanical) 3\*\*\*\*\* AME 309

SCEE 08003 Fluid Mechanics 2\*\*\*\*\*\* AME 309

MECE09008 Dynamics 3\*\*\*\*\* AME 420

BILG03001 Molecular Cell Biology\* BISC 320L Molecular Biology

SCEE08007 with SCEE09017 JMM20173 BME 413

CHEE09014 Process dynamics and controls JMM20173 BME 413 Bioengineering Signals and Systems (CHE content)

CHEE09014 Process dynamics and controls JMM20173 CHE 460 Chemical Process Dynamics and Control

CHEM 09009 CHEM 3B Organic Chemistry\*\* CHEM 322aL Organic Chemistry I

ELEE08001 Electrical Engineering 1 JMM20173 EE 202L Linear Circuits

CIVE08013 Materials Science and Engineering (Civil) 2\*\*\*\* MASC 310

SCEE08005 Material Science and Engineering JMM20173 MASC 310

MECE11010 Engineering in Medicine 5\*\*\* Technical Elective

BIME09005 Mechanisms of Brain Development 3\*\*\* Technical Elective

MECE10009 Polymers and Composite Materials 4\*\*\* Technical Elective

ELEE11075 Introductory Bioelectronics 4\*\*\* Technical Elective

ELEE 11081 Intro to Bioelectronics Technical Elective

MAEE10005 Engineering Project Management 4\*\*\* Technical Elective

SCEE11001 Nanotechnology 5\*\*\* Technical Elective

SCEE08006 Engineering Thermodynamics JMM20173 Technical Elective

SCEE09002 Control & Instrumentation Engineering JMM20173 Technical Elective

MECE08010 Mechanical Engineering Design JMM20173 Technical Elective

MAEE09003 Marketing Technical Products JMM20173 Technical Elective

SCEE11011 Nanotechnology JMM20173 Technical Elective

CHEE11026 JMM20173 Technical Elective

MATH10044 Numerical Partial Differential Equations JMM20173 Technical Elective

MAEE09003 Marketing Technical Products 2 JMM20173 Technical Elective

Courses Not Approved

BILG08015 Molecules, Genes and Cells\* BISC 320

MAEE08002 Techniques of Management\*\*\* Technical Elective

MECE09019 Mechanical Engineering Design 3\*\*\* (Need more details, please have AME dept review course)

MECE08010 Mechanical Engineering Design 2B\*\*\* (Need more details, please have AME dept review course)

\*Reviewed by BISC department 20113

\*\* Approved by CHEM department 20113

\*\*\* Reviewed by BME dept 20113

\*\*\*\* Reviewed by MASC 310 professor, Steven Nutt, 20113

\*\*\*\*\* Reviewed by AME dept 20113

\*\*\*\*\*\* Reviewed by AME dept 20161

JMM20173 Approved by BME Dept 20173

University of New South Wales

UNSW USC

BABS3121 Molecular Biology of Nucleic Acids \*\*\* BISC 320L Molecular Biology

BIOM9711 Modelling Organs, Tissues and Devices\* BME 403 Physiological Systems

BIOM9333 Cellular and Tissue Engineering\* BME 410 Biomaterials and Tissue Engineering

PHYS2050\*\* PHYS 152L Electricity and Magnetism

BIOM9640 Biomedical instrumentation\* Technical Elective

BIOM9332 Biocompatibility\* Technical Elective

BIOM9621 Biological Signal Analysis\* Technical Elective

Courses Not Approved

BIOC3111 Molecular Biology of Proteins\*\*\* BISC 320L

BIOM9701 Dynamics of the Cardiovascular System\* BME 403

PHYS1221\*\* (Includes material from 152 and 153) PHYS 152

BIOM9551 Biomechanics of Physical Rehabilitation\* Technical Elective

BIOM9311 Mass Transfer in Medicine\* Technical Elective

\* Reviewed by BME department chair 20113

\*\* Reviewed by PHYS department (Dr. Knol) 20113

\*\*\* Reviewed by BISC department (Dr. Shugarman) 20113

University of Sussex

US USC

C7004 Cell and Molecular Biology\*\* BISC 320L Molecular Biology

C1098 Neural Circuits\* BME 402 Control and Communication in the Nervous System

C1121\* Neuronal Plasticity and Gene Regulation BME 402 Control and Communication in the Nervous System

Strategies in Organic Chemistry WITH

Organic Reaction Mechanisms (both classes needed)\*\*\* CHEM 322bL

F 3171 + F3086 + F 3116 (all three required)\*\*\*\* PHYS 151L

C7112 Principles of Drug Action\* Technical Elective

C7115 The Immune System\* Technical Elective

C7129 Genome Stability, Genetic Diseases and Cancer\* Technical Elective

Courses Not Approved

H6063 Analogue Electronics\* BME 302 Medical Electronics

H6048-L1 Electronic System Group Project\* BME 302 Medical Electronics

H7087-L2 Electronic Design Project\* BME 302 Medical Electronics

C7020 Clinical Aspects of Biochemistry\* BME 410 Biomaterials & Tissue Engineering

Syn Methods in Organic chemistry\*\*\* CHEM 322bL

C7117 Innovation in Bioscience and Medicine\* Technical Elective

C7102 Virology\* Technical Elective

\* Reviewed by BME dept 20113

\*\* Reviewed by Dr. Shugarman, BISC dept, 20113

\*\*\* Reviewed by Dr. Moore, CHEM dept, 20113

\*\*\*\* Reviewed by Dr. Knol, PHYS dept, 20113

University of Otago New Zealand

UO USC

CELS 191 Cell & Mol Bio *with* HUBS Human Body Sys 191\*\* BISC 220

BIOC 221 Molecular Biology\*\* BISC 320 Molecular Biology

PHSL 222 Cellular and Molecular Physiology BISC 320 Molecular Biology

STAT110 Statistical Methods\*\*\* BME 423

STAT 115 Introduction to Biostatistics BME 423 Statistical Methods in Biomedical Engineering

ZOOL316 Biological Data Analysis and ComputingJMM20173 BME 423

CHEM 202 Organic Chemistry\*\*\*\* CHEM 322a (only for BMEN and BMEL)

ELEC253 Electronics: IntroductionJMM20173 EE 202

PHSI 132 [Fundamentals of Modern Physics](http://www.physics.otago.ac.nz/undergraduates/PHSI132.html) PHYS 153 Physics III: Optics and Modern Physics

CLTE303 Structural Properties of Materials and ProductsCHE20173 Technical Elective (not MASC 310)

DESN201 Design Methods Points\* Technical Elective

PHSE 302 Movement and Performance Analysis in Sport\* Technical Elective

ANAT 250 Functional Anatomy\* Technical Elective

Courses Not Approved

GENE 221 Molecular and Microbial Genetics\*

PHSL 231 Neurophysiology\*

PHSL 341 Molecular Cellular and Integrative Neurophysiology\*

CLTE303 Structural Properties of Materials and Products AME20173 AME 204 (is textile-related)

EMAN301 Fluids and Heat TransferAME20173  AME 309

CELS199 Cell and Molecular BiologyJMM20181 BISC 220 (no physiology, no lab)

MICR335 Molecular Microbiology JMM20181 BISC 320 (course covers Microbiology, not Molecular biology)

BIOC352 Advanced Molecular Biology and Bioinformatics JMM20181 BISC 320 (course is advanced and has Mo Bio as a pre-req)

CLTE303 Structural Properties of Materials and ProductsCHE20173 MASC 310 (is textile-related)

\*Reviewed by Dr. Grzywacz (BME) 20133

\*\*Approved by Dr. Herrera (BISC) 20133

\*\*\*Reviewed by BME 20153

\*\*\*\*Reviewed by BME 20161. Not approved by CHEM

University of Melbourne

UM USC

ENGR 30002 Fluid Mechanics JMM20183 AME 309

GENE20002 + GENE20003\*\* BISC 320

BCMB20002 + BCMB 20005\*\* BISC 330

BMEN 30005 Introduction to Biomechanics\*\*\*\*\*\* BME 404

BMEN 90021 Medical Imaging\*\*\*\*\*\* BME 425

BMEN 3006 Circuits and Systems\*\*\*\* EE 202

HPSC 40017 Sociology of Science and Technology\* SOCI 210

SOCI 10002 Sociology of Work and Occupations\* SOCI 360

SOCI 20014 Sociology of Youth\* SOCI 210

COMP 10001 Foundations of Computing JMM20183 Technical Elective

BTCH 30003 Biotechnology in Practice JMM20183 Technical Elective

INFO 30004 Usability Engineering JMM20183 Technical Elective

Denied courses:

CHEM 30004\*\*\*\*\* CHEM 322b

ELEN 30009 Electrical Network Analysis and Design\*\*\*\*\* EE 301

PSYC 10004 - Mind, Brain, and Behaviour\*\*\* PSYC 100

NEUR 30002 Neurophysiology:Neurons & Circuits JMM20183 BME 402 (Not enough matlab, modeling, etc.)

PHRM 30003 Drug Treatment of Disease JMM20183 Technical Elective

PHYS 30001 Cardiovascular Health: Genes & Hormones JMM20183 Technical Elective

\* Approved by Dr. Sternheimer (SOCI) 20143

\*\* Approved by Dr. Herrera (BISC) 20143

\*\*\* Reviewed by PSYC department 20143

\*\*\*\* Reviewed by Dr. Maby (EE) 20151

\*\*\*\*\* Reviewed by Dr. Thompson (CHEM) 20143

\*\*\*\*\*\* Reviewed by Dr. Maarek (BME) 20143

JMM20183 Reviewed by Dr. Maarek (BME) 20183

University of Cape Town

UCT USC

MCB2021F Molecular Bioscience\*\* BISC 320L Molecular Biology

HUB4007F Biomechanics of the Musculoskeletal Sys\* BME 404 Biomechanics

MEC2043F Electrical & Mechanical Materials\* EE 338 (Should get reviewed by EE if pre-req for 348)

MEC2043F Electrical & Mechanical Materials\* MASC 310

MEC4109S Engineering Professionalism\* BME Technical Elective

\* Approved by Dr. Maarek (BME) 20152

\*\* Approved by Dr. Herrera (BISC) 20152

Denied courses:

MEC3037S Professional Communication Studies (Tech Elective)

MEC4063C Industrial Ecology (Tech Elective)

MEC4103F Product Design (Tech Elective)

MEC4104F Manufacturing & Nanotechnology (Tech Elective)

HUB3006F General & Applied Physiology (BME 403)

Australia National University

ANU USC

BIOL2171 Biochemistry of the Cell BISC330L Biochemistry

ENGN2211 Electronic Circuits and Devices EE202L Linear Circuits

ENGR4615 Finite Element Analysis AME 308 Computer Aided Analysis for Design

ENGR3223 Control Systems AME 451 Linear Control Systems I

 + ENGR2223 Signals and Systems

ENGR4511 Composite Materials MASC 310 Materials Behavior and Processing

BIOL 3101 Physiology of the Nervous System BME 402 Control and Communication in Nervous System

ENGR 4533 Biomedical Engineering BME 403 Physiological Systems [C-EE 202L]

ENGR 4627 Robotics CSCI 445 Introduction to Robotics

*All of the ANU courses were considered in Spring 2006, but not specifically approved or denied.*

Universidad Carlos III de Madrid

UCM USC

Engineering fluid mechanics (14196)\*\* AME 309

UC3M Biomaterials\* BME 410

UC3M Image Processing\* EE 483 (Technical Elective)

UC3M Materials Science and EngineeringMASCSN MASC 310

UC3M Medical Instrumentation\* Technical Elective

UC3M Tissue Engineering\* Technical Elective

\*Approved by Dr. Maarek Fall 2016

MASCSN: Approved by Steven Nutt 20163

\*\*Approved by AME Fall 2017