

2019 - BIOLOGY MAJORS, MINORS AND SPECIALISATIONS

EVOLUTION ECOLOGY AND ORGANISMAL BIOLOGY MAJOR	CELL AND MOLECULAR BIOLOGY MAJOR	HUMAN BIOLOGY MAJOR	BIOCHEMISTRY MAJOR (shared with RSC – no change)
<p>48 units must include:</p> <p>18 units from the following: BIOL1003 Biology 1: Evol, Ecol & Genetics BIOL1004 Biology 2: Mol & Cell Biology BIOL1009 Diversity of Life</p> <p>6 units from the following: BIOL2001 Intro to Quantitative Biology BIOL2202 Exp Design & Analysis in Biology ENV51003 Intro to Env & Social Research PSYC2009 Quantitative Methods in Psych BIAN3014 Res Design & Analysis in Biol Anth</p> <p>12 units from the following: BIOL2114 Evolution BIOL2115 Comparative Physiology BIOL2131 Ecology BIOL2151 Genetics BIOL2203 Field Studies in Functional Ecology</p> <p>6 units from the following: BIOL3125 Plants & Global Climate Change BIOL3206 Macroevolution & Macroecology BIOL3303 Adv Field Studies in Functional Ecology BIOL3109 Ecology & Evolutionary Dev Biology</p> <p>6 units from the following: BIOL3191 Biology, Society & Ethics BIOL3201 Big Questions in Biology</p>	<p>48 units must include:</p> <p>24 units from the following: BIOL1003 Biology 1: Evol, Ecol & Genetics BIOL1004 Biology 2: Mol & Cell Biology BIOL2161 Genes: Replication & Expression BIOL2162 Molecular Gene Technology</p> <p>6 units from the following: BIOL2001 Intro to Quantitative Biology BIOL2202 Exp Design & Analysis in Biology ENV51003 Intro to Env & Social Research PSYC2009 Quantitative Methods in Psych BIAN3014 Res Design & Anal in Biol Anth</p> <p>6 units from the following: BIOL2117 Cell Biology BIOL2142 General Microbiology BIOL2151 Genetics BIOL2171 Biochemistry & Nutrition BIOL2174 Cell Physiology in Health & Disease</p> <p>6 units from the following: BIOL3107 Adv in Medical & Plant Biochem BIOL3108 Hallmarks of Cancer BIOL3109 Ecol & Evol Dev Biology BIOL3141 Infection and Immunity BIOL3142 Parasitology BIOL3144 Adv & Applied Immunology BIOL3161 Genomics & its Application BIOL3177 Adv in Molecular Plant Science BIOL3203 Histology & Adv Microscopy BIOL3204 Genetics of Human Disease 1 BIOL3205 Genetics of Human Disease 2 BIOL3208 Biology Research Project BIOL3209 Biology Research Project (12u) NEUR3101 Cellular Neuroscience</p> <p>6 units from the following: BIOL3191 Biology, Society & Ethics BIOL3201 Big Questions in Biology</p>	<p>48 units must include:</p> <p>24 units from the following: BIOL1003 Biology 1: Evol, Ecol & Genetics BIOL1004 Biology 2: Mol & Cell Biology BIOL2161 Genes: Replication & Expression MEDN2001 Medical Physiology & Pharmacology</p> <p>6 units from the following: BIOL2001 Intro to Quantitative Biology BIOL2202 Exp Design & Anal in Biology ENV51003 Intro to Env & Social Research PSYC2009 Quant Methods in Psych BIAN3014 Res Design & Anal in Biol Anth</p> <p>6 units from the following: BIOL2117 Cell Biology BIOL2142 General Microbiology BIOL2151 Genetics BIOL2171 Biochemistry & Nutrition BIOL2174 Cell Physiol in Health & Disease BIOL2191 Ecology of Health and Disease BIOL2222 Exquisite Corpse</p> <p>6 units from the following: BIOL3108 Hallmarks of Cancer BIOL3141 Infection and Immunity BIOL3142 Parasitology BIOL3144 Advanced & Applied Immunology BIOL3186 Human Anatomy BIOL3204 Genetics of Human Disease 1 BIOL3205 Genetics of Human Disease 2 BIOL3208 Biology Research Project BIOL3209 Biology Research Project (12u) NEUR3101 Cellular Neuroscience NEUR3112 Systems Neuroscience BIAN3113 Human Evolution BIAN3124 Evolution of Human Behaviour BIAN3125 Ancient Health & Disease</p> <p>6 units from the following: BIOL3191 Biology, Society & Ethics BIOL3201 Big Questions in Biology</p>	<p>48 units must include:</p> <p>24 units from the following: BIOL1004 Biology 2: Mol & Cell Biology BIOL2171 Biochemistry & Nutrition CHEM1201 Chemistry 2 CHEM2211 Chemical Biology 1</p> <p>6 units from the following: BIOL2161 Genes: Replication & Expression BIOL2162 Molecular Gene Technology CHEM2208 Chemical Biology 2</p> <p>18 units from the following: BIOL3107 Adv in Medical & Plant Biochemistry BIOL3110 Stable Isotopes in Biogeochem, Environment, Medicine & Authentication BIOL3208 Biology Research Project BIOL3209 Biology Research Project (12u) CHEM3204 Structural Methods in Chem Biol CHEM3207 Current Topics in Chem Biol CHEM3060 Research Project in Chemistry</p>

EVOLUTION & ECOLOGY SPECIALISATION	NEUROSCIENCE & PHYSIOLOGY SPECIALISATION	BIOMEDICAL SCIENCE SPECIALISATION	GENETICS SPECIALISATION
<p>24 units from the following: BIOL3109 Ecol & Evol Dev Biology BIOL3113 Invertebrate Biology BIOL3114 Vertebrates Biology BIOL3116 Marine Conservation Ecology BIOL3131 Evol & Behavioural Ecology BIOL3132 Field Studies in Behaviour Ecol BIOL3142 Parasitology BIOL3193 Bacteria & Health: An Ecol & Evol Perspective BIOL3206 Macroevolution & Macroecology BIOL3208 Biology Research Project BIOL3209 Biology Research Project (12u) BIOL3210 Appreciating Parasites BIOL3303 Adv Field Studies in Functional Ecology</p> <p>Co-requisite majors: Evolution, Ecology and Organismal Biology</p>	<p>24 units must include:</p> <p>6 units from the following: BIOL2174 Cell Physiology in Health & Disease</p> <p>12 units from the following: NEUR3101 Cellular Neuroscience NEUR3112 Systems Neuroscience MEDN2001 Medical Physiology & Pharmacology</p> <p>6 units from the following: BIOL3186 Human Anatomy BIOL3203 Adv Microscopy in BioSc BIOL3208 Biology Research Project PSYC3016 Neuropsychology & Cognitive Neuroscience</p> <p>Co-requisite majors: Biochemistry or Cell and Molecular Biology or Human Biology or Psychology</p>	<p>24 units must include:</p> <p>6 units from the following: BIOL2117 Cell Biology BIOL2142 General Microbiology BIOL2151 Genetics BIOL2171 Biochemistry & Nutrition BIOL2174 Cell Physiology in Health and Disease BIOL2191 Ecology of Health and Disease BIOL2222 Exquisite Corpse: Insight into the Human Body MEDN2001 Medical Physiology & Pharmacology</p> <p>18 units from the following: BIOL3108 Hallmarks of Cancer BIOL3141 Infection & Immunity BIOL3142 Parasitology BIOL3144 Advanced & Applied Immunology BIOL3186 Human Anatomy BIOL3203 Advanced Microscopy and Histology BIOL3204 Genetics of Human Disease 1 BIOL3205 Genetics of Human Disease 2 BIOL3208 Biology Research Project BIOL3209 Biology Research Project (12u) NEUR3101 Cellular Neuroscience NEUR3112 Systems Neuroscience</p> <p>Co-requisite majors: Cell and Molecular Biology or Human Biology or Biochemistry</p>	<p>24 units must include:</p> <p>6 units from the following: BIOL2151 Genetics BIOL2161 Genes: Replication & Expression</p> <p>18 units from the following: BIOL3108 Hallmarks of Cancer BIOL3109 Ecol & Evol Dev Biology BIOL3157 Bioinformatics & It's Applications BIOL3161 Genomics & Its Applications BIOL3193 Bacteria & Health: An Ecol & Evol Perspective BIOL3204 Genetics of Human Disease 1 BIOL3205 Genetics of Human Disease 2 BIOL3206 Macroevolution & Macroecology BIOL3208 Biology Research Project BIOL3209 Biology Research Project (12u)</p> <p>Co-requisite majors: : Cell and Molecular Biology or Human Biology or Evolution, Ecology and Organismal Biology or Biochemistry</p>

MICROBIOLOGY & IMMUNOLOGY SPECIALISATION	PLANT SCIENCE SPECIALISATION	BIOCHEMISTRY SPECIALISATION (Shared with RSC)	BIOLOGY MINOR
<p>24 units must include:</p> <p>12 units from the following: BIOL2142 General Microbiology BIOL3141 Infection & Immunity</p> <p>12 units from the following: BIOL3106 Biosecurity BIOL3142 Parasitology BIOL3144 Adv & Applied Immunology BIOL3193 Bacteria & Health: An Ecological and Evolutionary Perspective BIOL3208/3209 Biology Research Project</p> <p>Co-requisite majors: <i>Cell and Molecular Biology or Human Biology or Evolution, Ecology and Organismal Biology or Biochemistry</i></p>	<p>24 units must include:</p> <p>6 units from the following: BIOL2114 Evolution BIOL2115 Comparative Physiology BIOL2117 Cell Biology BIOL2131 Ecology BIOL2151 Genetics BIOL2161 Genes: Replication & Expression BIOL2162 Molecular Gene Technology</p> <p>18 units from the following: BIOL3106 Biosecurity BIOL3107 Advances in Medical & Plant Biochemistry BIOL3109 Ecological & Evolutionary Developmental Biology BIOL3002 Plants: Genes to Environment BIOL3125 Plants & Global Climate Change BIOL3177 Adv in Molecular Plant Science BIOL3203 Adv Microscopy in Biosc BIOL3303 Adv Field Studies in Functional Ecology BIOL3208/3209 Biology Research Project BIOL3210 Appreciating Parasites</p> <p>Co-requisite majors: <i>Biochemistry or Cell and Molecular Biology or Evolution, Ecology and Organismal Biology</i></p>	<p>24 units must include:</p> <p>12 units from the following: BIOL2171 Biochemistry & Nutrition CHEM2208 Protein Engineering & Analysis</p> <p>12 units from the following: BIOL3107 Adv in Medical & Plant Biochem BIOL3208 or BIOL3209 Biology Research Project BIOL3110 Stable isotopes in Biogeochemistry, environment, medicine and authentication CHEM3201, CHEM3204, CHEM3207 or CHEM3060 Research Project (relevant to Biochem)</p> <p>Co-requisite majors: <i>Cell and Molecular Biology or Chemistry or Human Biology</i></p>	<p>24 units must include:</p> <p>12 units from the following: BIOL1003 Biology 1: Evol, Ecol & Genetics BIOL1004 Biology 2: Mol & Cell Biology BIOL1008 Human Biology BIOL1009 Diversity of Life</p> <p>12 units from the following: 2000 or 3000 BIOL or NEUR course</p> <div data-bbox="1581 632 2078 703" style="background-color: #ADD8E6; text-align: center; padding: 5px;">FOUNDATIONS OF MOLECULAR BIOLOGY MINOR</div> <p>24 units must include:</p> <p>12 units from the following: BIOL1004 Biology 2: Mol & Cell Biology CHEM1101 Chemistry 1</p> <p>12 units from the following: BIOL2001 Intro to Quantitative Biology BIOL2202 Exp Design & Analysis in Biology</p>

HUMAN EVOLUTIONARY BIOLOGY MAJOR <i>(shared with Arts)</i>	HUMAN EVOLUTIONARY BIOLOGY MINOR <i>(shared with Arts)</i>	QUANTITATIVE BIOLOGY MAJOR <i>(shared with Maths)</i>	ADVANCED QUANTITATIVE BIOLOGY & BIOINFORMATICS SPECIALISATION <i>(Shared with Maths)</i>
<p>48 units must include:</p> <p>18 units from the following: BIAN1001 The Human Voyage: Introduction to Biological Anthropology BIAN3113 Human Evolution BIOL1003 Biology 1: Evol, Ecol & Genetics</p> <p>6 units from the following: BIOL3131 Evol & Behavioural Ecology BIOL3186 Human Anatomy BIOL3206 Macroevolution & Macroecology</p> <p>12 units from the following: BIAN2015 Human Skeletal Analysis BIAN2119 Nutrition, Disease & the Env BIAN3124 Evolution & Human Behaviour BIAN3127 Primate Ecology & Behaviour</p> <p>12 units from the following: BIAN2126 Primate Evolutionary Biology BIAN2133 Mating & Parenting: Evolutionary Ecology of Human Reproductive Strategies BIAN3021 Primate Conservation Biology BIAN3125 Ancient Health & Disease BIOL2131 Ecology BIOL2191 Ecology of Health and Disease BIOL2222 Exquisite Corpse – Insight into the Human Body BIOL3204 Genetics of Human Disease 1 BIOL3205 Genetics of Human Disease 2</p>	<p>24 units must include:</p> <p>12 units from the following: BIAN1001 The Human Voyage: Introduction to Biological Anthropology BIOL1003 Biology 1: Evol, Ecol & Genetics</p> <p>6 units from the following: BIOL3131 Evol & Behavioural Ecology BIOL3186 Human Anatomy</p> <p>A minimum of 6 units from the following list: BIAN2119 Nutrition, Disease & the Env BIAN2131 Evolution of Parenting BIAN3124 Evolution & Human Behaviour BIAN3125 Ancient Health & Disease BIAN3127 Primate Ecology & Behaviour BIOL2191 Ecology of Health and Disease BIOL3131 Evolutionary & Behavioural Ecology BIOL3204 Genetics of Human Disease 1 BIOL3206 Macroevolution & Macroecology</p>	<p>48 units of the following compulsory courses:</p> <p>42 units from the following compulsory courses: BIOL1003 Biology 1: Evolution, Ecology and Genetics BIOL2151 Genetics BIOL3157 Bioinformatics & It's Applications MATH2307 Bioinformatics and Computational Biology MATH3353 Advanced Mathematical Bioinformatics MATH3511 Scientific Computing STAT2001 Introductory Mathematical Statistics</p> <p>6 units from the following: MATH1013 Mathematics and Applications 1 MATH1115 Advanced Mathematics and Application 1</p>	<p>24 units must include:</p> <p>BIOL2202 Experimental Design & Analysis BIOL3157 Bioinformatics & Its Applications BIOL3161 Genomics & Its Applications BIOL3206 Macroevolution & Macroecology COMP3420 Advanced Databases and Data Mining COMP3600 Algorithms COMP3630 Theory of Computation MATH2306 Applied Mathematics II MATH3029 Probability Modelling with Applications MATH3501 Scientific and Industrial Modelling MATH3512 Matrix Computations MATH3514 Numerical Optimisation STAT2005 Introduction to Stochastic Processes STAT3004 Stochastic Modelling STAT3008 Applied Statistics STAT3017 Big Data Statistics</p> <p>Co-requisite majors: Quantitative Biology Major</p>

