

HONORS SPECIALIZATION MODULES – Course Selection Guidelines

Biochemistry	Biochemistry and Cell Biology
<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 0.5 course: Biology 2581B 1.0 course from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G 1.0 course from: Biology 2382B, 2290F/G, Chemistry 2211A, 2214B, 2374A, 2384B 0.5 course from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Choosing Biology 2382B and 2290F/G gives students more flexibility to choose a different Basic Medical Science module after Year 2. Choosing Chemistry 2273A and 2283G and Chemistry 2374A and 2384B gives students the flexibility to consider other Honors Specialization modules offered in conjunction with Chemistry, e.g. Chemical Biology or a BSc Honors degree with an Honors Specialization in Biochemistry and Chemistry. 	<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 1.0 course: Biology 2581B and 2290F/G 0.5 course: Biology 2382B (min. mark of 70%) 1.0 course from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G 0.5 from: Biology 2244A/B or Statistics 2244A/B</p>
<p>Year 3: 2.0 courses</p> <p>1.5 courses: Biochemistry 3380G, 3381A, 3382A (min. mark of 70% in each) 0.5 courses: Biochemistry 3390B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Biochemistry 3385A and 3386B might be a good option to consider if there is an interest in the Honors Specialization in Clinical Biochemistry. 	<p>Year 3: 3.5 courses</p> <p>1.5 courses: Biochemistry 3380G, 3381A and 3382A (min. mark of 70% in each) 0.5 course: Biology 3316A (min. mark of 70%) or Physiology 3140A (min. mark of 70%) 0.5 course: Biology 3326F/G 1.0 course: Anatomy and Cell Biology 3309</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Enrolment in Anatomy and Cell Biology 4480E requires a minimum mark of 70% in Biology 3326F/G
<p>Year 4: 4.0 courses</p> <p>1.5 course: Biochemistry 4483E (Research Project = 1.5 courses) 2.0 course: Biochemistry 4410A, 4420A, 4415B, 4425B 0.5 courses from: Biochemistry 4450A, 4463G</p>	<p>Year 4: 3.5 courses</p> <p>1.5 course: Biochemistry 4483E or Anatomy and Cell Biology 4480E (Research Project = 1.5 courses) 1.0 courses: Biochemistry 4410A, 4420A 0.5 courses: Biochemistry 4415B, 4425B 0.5 course: Anatomy and Cell Biology 4429A</p>

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Biochemistry of Infection and Immunity	Chemical Biology
<p>Year 2: 4.0 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 1.5 courses: Biology 2581B, Biology 2382B, and Biology 2290F/G 1.0 course from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G 0.5 course from: Biology 2244A/B or Statistics 2244A/B 0.5 course: Microbiology and Immunology 2500A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Microbiology and Immunology 2500A/B is the pre-requisite for all 3000- and 4000-level Microbiology and Immunology courses and must be completed in Year 2. 	<p>Year 2: 4.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 0.5 course: Biology 2581B 1.0 course: Chemistry 2273A and 2283G 1.0 course: Chemistry 2271A and 2281G 1.0 course: Chemistry 2374A and 2384B 0.5 course: Chemistry 2272F</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Students switching to a different module offered by the Department of Biochemistry will be allowed to use Chemistry 2272F in place of either Biology or Statistics 2244A/B Students wishing to keep open the option of other Honors Specialization modules in Year 3 should contact the Department of Chemistry to ask if any of the 2000-level Chemistry courses can be delayed until Year 3
<p>Year 3: 2.5 courses</p> <p>1.0 courses: Biochemistry 3381A and 3382A 0.5 courses from: Biochemistry 3380G or Microbiology and Immunology 3610F or Microbiology and Immunology 3620G (min. mark of 70%) 1.0 course: Microbiology and Immunology 3100A, 3300B (min. mark of 70% in each)</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Enrolment in Biochemistry 4483E requires a minimum mark of 70% in each of Biochemistry 3381A and 3382A. 	<p>Year 3: 3.0 courses</p> <p>2.0 courses: Biochemistry 3380G, 3381A, 3382A, 3390B 1.0 course from: Chemistry 3371F, 3372G, 3373F, 3374A</p>
<p>Year 4: 3.5 courses (for Year 4 students in 2014/15)</p> <p>1.5 courses: Biochemistry 4483E (Research Project = 1.5 courses) or Microbiology and Immunology 4970E (Research Project = 1.5 courses) 1.0 courses: Biochemistry 4410A and 4420A 1.0 course from: Microbiology and Immunology 4100A, 4200B, 4300A</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Microbiology and Immunology 4700B is no longer offered 	<p>Year 4: 3.5 courses</p> <p>1.5 courses: Chemical Biology 4450E (Research Project = 1.5 courses) 1.0 courses: Biochemistry 4410A and 4420A 1.0 courses: Biochemistry 4415B, 4425B.</p>

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Biochemistry and Pathology of Human Disease (Clinical Biochemistry for Year 4 students)	Computational Biochemistry
<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 0.5 course: Biology 2581B 1.0 course from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G 1.0 course from: Biology 2382B, 2290F/G, Chemistry 2211A, 2214B, 2374A, 2384B, Microbiology and Immunology 2500A/B 0.5 course from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Choosing Biology 2382B and 2290F/G gives students more flexibility to choose a different Basic Medical Science module after Year 2. Choosing Chemistry 2273A and 2283G, and Chemistry 2374A and 2384B gives students the flexibility to consider other Honors Specialization modules offered in conjunction with Chemistry, e.g. Chemical Biology or a BSc Honors degree with an Honors Specialization in Biochemistry and Chemistry. 	<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Computer Science 1025A/B or 1026A/B 0.5 course: Computer Science 1027A/B 0.5 course: Biochemistry 2280A 1.0 course from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G 0.5 course: Biology 2581B 0.5 course: Biology or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Point to consider: if the two first-year half courses in Computer Science were completed in first-year, the first-year physics requirement must be completed by the end of Year 2.
<p>Year 3: 3.5 courses</p> <p>1.5 courses: Biochemistry 3381A, 3382B and 3380G (min. 70% in each) 1.0 courses: Biochemistry 3385A and 3386B 1.0 courses: Pathology 3240A and 3245B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Physiology 3120 or 2130 is recommended 	<p>Year 3: 3.0 courses</p> <p>1.0 courses: Computer Science 2210A/B and 2211A/B 1.0 course from: Biochemistry 3381A and 3382A (minimum of 70% in each) 1.0 course from: Biochemistry 3383F/G, 3390B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Enrolment in Biochemistry 4483E requires a minimum mark of 70% in each of Biochemistry 3381A and 3382B
<p>Year 4: 3.5 courses - for students in Year 4 in 2014/15</p> <p>1.5 course: Biochemistry 4485E (Research Project = 1.5 courses) 2.0 courses: Biochemistry 4410A, 4420A, 4450A and 4463G</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Year 4 students will complete the Honors Specialization in Clinical Biochemistry 	<p>Year 4: 3.5 courses</p> <p>1.5 courses: Biochemistry 4483E (Research project = 1.5 courses) 2.0 courses: Biochemistry 4410A, 4420A, 4415B, 4425B</p>

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IMS	Medical Biophysics (Clinical Physics Concentration)
<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 1.5 courses: Biology 2581B, 2382B and 2290F/G 0.5 course: Chemistry 2213A 0.5 course: Either Chemistry 2223B or another half course in Chemistry at the 2200-level 0.5 course from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Students could take Pharmacology 2060B in addition to the 3.5 courses above to gauge their interest in this subject area for future study in this discipline. Microbiology and Immunology 2500A/B is the pre-requisite for ALL Microbiology and Immunology courses. This course should be taken in Year 2 if interested in studying this discipline in the future. Choosing Chemistry 2223B provides more flexibility in a student's eligibility for different Basic Medical Science modules (Biochemistry or Microbiology and Immunology etc.) in Year 3 BMSc. 	<p>Year 2: 2.5 REQUIRED courses</p> <p>1.5 courses: Physics 2101A, 2102B and 2110A 0.5 course from: Calculus 2302A or Calculus 2502A 0.5 course from: Calculus 2303B or Calculus 2503B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Medical Biophysics 3330F/G may be taken in Year 2 to reduce the heavier load in Year 3.
<p>Year 3: 3.5 courses</p> <p>3.5 basic medical science courses from the list in the online Academic Calendar.</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Of these required courses, students must take at least 2.5 courses from Group 1 and at least 0.5 course from Group 3 (lab course) Students must include courses such that prerequisites are met to take 2.0 4000-level basic medical science courses in fourth year (in addition to Medical Sciences 4900F/G and 4930F/G) from <i>at least two disciplines</i>. Some 4000-level courses have limited or no spaces available to students in IMS. Students should review Access to Courses and Reserved Spaces in 4000-level courses on the BMSc Program website under Courses. Choose your courses wisely - be sure to give yourself many options for 4000-level courses 	<p>Year 3: 5.0 courses</p> <p>1.0 course: Physiology 3120 or Physiology 2130 3.0 courses: Medical Biophysics 3330F/G, 3501F, 3503G, 3505F, 3507G, 3970Z 1.0 course from: Physics 3200A/B, 3300A/B, 3380A/B, 3400A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Medical Biophysics 3330F/G may be taken in Year 2 to reduce the heavier load in Year 3. All of the 3000-level Physics courses listed above must be completed by the end of Year 4
<p>Year 4: 3.0 courses</p> <p>1.0 course: Medical Sciences 4900F/G and 4930F/G 2.0 courses from: 4000-level basic medical science courses from the list in the online Academic Calendar</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Medical Sciences 4900F/G and 4930F/G must be taken concurrently (i.e. in the same term) Medical Sciences 4200F/G and 4100F/G can be taken to meet the 2.0, 4000-level requirement from the basic medical sciences. 	<p>Year 4: 4.0 courses</p> <p>1.5 course: Medical Biophysics 4971E (Research Project = 1.5 course) 0.5 course from: Medical Biophysics 4445A/B, 4455A/B, 4535A/B 1.0 course from: Physics 3200A/B, 3300A/B, 3380A/B, 3400A/B (all must be completed by the end of Year 4) 1.0 course from: Physics at the 3000- or 4000-level</p>

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Medical Biophysics (Medical Science Concentration)	Medical Biophysics and Biochemistry
<p>Year 2: 2.0 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 0.5 course: Chemistry 2213A 0.5 course: Biology or Statistics 2244A/B 0.5 course from: Computer Science 2035B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> 0.5 course from Chemistry 2214B, Biology 2382B, Biology 2581B, or Medical Biophysics 3336F/G, should be taken to reduce the course load in Year 3. Choosing either Biology 2382B or 2581B gives students more flexibility to choose a different Basic Medical Science module in Year 3. Physics 2101A and 2102B or Physiology 2130 may also be taken in Year 2 to reduce the course load in Year 3 	<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 0.5 course: Biology 2581B 1.0 course from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G 0.5 course: Biology or Statistics 2244A/B 0.5 course from: Computer Science 2035B 0.5 course from: Medical Biophysics 2582B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Physiology 2130 can be taken in Year 2 or 3
<p>Year 3: 4.0 courses</p> <p>3.5 courses: Medical Biophysics 3330F, 3501F, 3503G, 3505F, 3507G, 3645A/B, 3970Z 0.5 course from: Chemistry 2214B, Biology 2382B, Biology 2581B, or Medical Biophysics 3336F/G, if not taken in Year 2</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Physiology 3120 could be taken in Year 3, as an alternative to either Physics 2101A/2102B or Physiology 2130 	<p>Year 3: 3.5 courses</p> <p>1.0 courses: Medical Biophysics 3501F, 3507G 1.0 courses: Biochemistry 3381A, 3382A 0.5 courses: Medical Biophysics 3970Z or Biochemistry 3380G 1.0 courses: Physiology 2130</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Physiology 2130 can be taken in Year 2 or 3
<p>Year 4: 2.5 courses</p> <p>1.5 course: Med Biophysics 4970E (Research project = 1.5 courses) 1.0 course from: Medical Biophysics 4445A, 4455B, 4467B, 4535A/B, 4475A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> As this module recently changed, students in Year 4 in 2014/15 may complete the requirements in either the 2012/13 Academic Calendar or the current 2014/15 Academic Calendar 	<p>Year 4: 3.5 courses</p> <p>1.5 course: Med Biophysics 4970E (Research project = 1.5 courses) or Biochemistry 4483E (Research project = 1.5 courses) 1.0 course from: Biochemistry 4410A and 4420A 0.5 course from: Medical Biophysics 4518B 0.5 course from: Medical Biophysics 3645A or 4467B</p>

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Medical Cell Biology	Medical Health Informatics
<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 1.0 course: Biology 2581B and 2290F/G 0.5 course: Biology 2382B (min. mark of 70%) 1.0 courses from: Chemistry 2213A and 2223B (min. mark of 65% in each) or Chemistry 2273A and 2283G (min. mark of 60% in each) 0.5 from: Biology 2244A/B or Statistics 2244A/B</p>	<p>Year 2: 3.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 0.5 course: Chemistry 2213A 0.5 course: Biology or Statistics 2244A/B 1.0 courses: Computer Science 2120A/B and 2121A/B 1.0 course from: Biology 2290F/G, 2382B, 2581B</p>
<p>Year 3: 3.0 – 4.0 courses</p> <p>1.0 courses: Biochemistry 3381A and 3382A (min. mark of 70% in each) 0.5 courses from: Biology 3316A or Physiology 3140A (min. mark of 70%) 0.5 courses from: Biochemistry 3380G or Biology 3326F/G (min. mark of 70%) 1.0 course: Anatomy and Cell Biology 3309 1.0 course from: Physiology 3120 or Anatomy and Cell Biology 3319 (may be delayed until Year 4)</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Physiology 3120 is the prerequisite for Anatomy and Cell Biology 4451F/G 	<p>Year 3: 4.0 courses</p> <p>1.0 courses: Pathology 3240A and 3245B 1.0 course: Physiology 3120 1.0 courses: Computer Science 3120A/B and 3121A/B 1.0 course from: Anatomy and Cell Biology 3309, 3319, Biochemistry 3385A, 3386B, Epidemiology 2200A/B, Medical Biophysics 3503G, Microbiology and Immunology 2500A/B, Pharmacology 3620</p>
<p>Year 4: 3.5 – 4.5 courses</p> <p>1.5 course: Anatomy and Cell Biology 4480E (Research Project = 1.5 courses) 1.5 course: Anatomy and Cell Biology 4410A, 4411B and 4429A 0.5 course from: Anatomy and Cell Biology 4451F/G or 4461B 1.0 course: Physiology 3120 or Anatomy and Cell Biology 3319 (if not taken in Year 3)</p>	<p>Year 4: 3.5 courses</p> <p>1.5 course: Medical Health Informatics 4980E (Research Project = 1.5 courses) 1.0 course: Medical Health Informatics 4100F and 4110G 1.0 course from: Computer Science 3122A/B, 3375A/B, 4412A/B</p>

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Medical Sciences	Microbiology and Immunology
<p>Admission to this module has been discontinued.</p>	<p>Year 2: 4.0 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A (min. mark of 65%) 1.5 courses: Biology 2581B, 2382B, 2290F/G 1.0 course: Chemistry 2213A and 2223B (min. mark of 65% in each) 0.5 course from: Biology 2244A/B or Statistics 2244A/B 0.5 course: Microbiology 2500A/B (min. mark of 70%)</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Microbiology and Immunology 2500A/B will be the pre-requisite for all 3000-level Microbiology and Immunology courses.
<p>Admission to this module has been discontinued.</p>	<p>Year 3: 2.5 courses</p> <p>0.5 course: Biochemistry 3381A (min. mark of 70%) 2.0 courses: Microbiology and Immunology 3100A, 3300B, 3610F, 3620G (min. mark of 70% in each)</p>
<p>Year 4: 3.0 courses</p> <p>1.0 course: Medical Sciences 4900F/G and 4930F/G 2.0 courses from: 4000-level basic medical science courses from the list in the online Academic Calendar</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Medical Sciences 4900F/G and 4930F/G must be taken concurrently (i.e. in the same term) Medical Sciences 4100F/G and 4200F/G can be taken to meet the 2.0, 4000-level basic medical science course requirement 	<p>Year 4: 3.5 courses for students in Year 4 in 2014/15* 3.0 courses for students in Year 4 in 2015/16 and onward</p> <p>1.5 course: Microbiology and Immunology 4970E (Research Project = 1.5 courses) 1.5 courses: Microbiology and Immunology 4100A, 4200B, 4300A</p> <p>* 0.5 course from: Biology, Chemistry or any of the basic medical sciences at the 3000-level or above, if not completed in Year 3, is required only for students completing Year 4 in 2014/15. The modular requirements for Year 4 students in 2014/15 are located in the 2012/13 Academic Calendar and include Microbiology and Immunology 4700B, which is no longer offered. The additional half course in biology, chemistry or the basic medical sciences is required as a replacement for Micro Imm 4700B for students in Year 4 in 2014/15, only, so that 9.5 modular courses are completed.</p>

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Pathology and Toxicology	Pharmacology
<p>Year 2: 2.5 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 0.5 course: Biology 2382B 0.5 course from: Biology 2581B or 2290F/G 0.5 course: Chemistry 2213A 0.5 from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • Selecting all three of Biology 2581B, 2382B and 2290F/G gives flexibility to register in alternative modules in Year 3. • Completion of Chemistry 2211A, 2214B or 2223B in Year 2 is recommended. • Chemistry 2223B is recommended as it gives flexibility to register in alternative modules in Year 3 (Biochemistry, Medical Cell Biology, Microbiology and Immunology). 	<p>Year 2: 3.0 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 1.5 courses: Biology 2581B, 2382B and 2290F/G 0.5 course: Chemistry 2213A 0.5 course from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • Chemistry 2223B is recommended as it gives flexibility to register in alternative modules in Year 3 (Biochemistry, Medical Cell Biology, Microbiology and Immunology). • Pharmacology 2060B can be taken in Year 2 as an opportunity to explore a potential interest in Pharmacology. • The 0.5 course from Chemistry 2210A, 2211A, 2214B, 2223B, Pathology 3240A, or Epidemiology 2200B is required in either Years 2, 3 or 4
<p>Year 3: 4.5 – 5.0 courses</p> <p>1.0 course from: Pharmacology 3620 1.0 course: Physiology 3120 1.0 course from: Anatomy and Cell Biology 3309 or 3319 0.5 course from: Biology 3316A, Chemistry 2272F, Epidemiology 2200B, Physiology 3140A, Medical Health Informatics 4100F or 4110G (can be deferred to Year 4 – see Points to Consider, below) 1.0 course: Pathology 3240A and 3245B (min. mark of 75% in each) 0.5 from: Chemistry 2211A, 2214B or 2223B, if not completed in Year 2</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • Without either Pharmacology 3580Y or Physiology 3130Y in Year 3, the only alternative HSP module for Year 4 is IMS, which does not contain a research project. Students should take Physiology 3140A and either Physiology 3130Y or Pharmacology 3580Y to keep open Honors Specialization in either Physiology or Pharmacology, respectively, for Year 4. • Students wishing to take Medical Health Informatics 4100F or 4110G may only take these courses in Year 4 	<p>Year 3: 3.0 – 3.5 courses</p> <p>1.5 course: Pharmacology 3620 and 3580Y 1.0 course: Physiology 3120 0.5 course from: Physiology 3140A 0.5 course from: Chemistry 2210A, 2211A, 2214B, 2223B, Pathology 3240A, or Epidemiology 2200B is required in one of Years 2, 3 or 4</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • Either Epidemiology 2200B or Pathology 3240A can be taken in Year 3 (neither are mandatory – see Year 2). • Pharmacology 3580Y is a half laboratory course that runs all year. Students will end up with a heavier load in one term – in one term, students will take 5 courses and Pharmacology 3580Y, and in the other term, they will take 4 courses and Pharmacology 3580Y. • Registration in Pharmacology 3580Y requires a minimum average of 75% in the previous year
<p>Year 4: 3.5 courses</p> <p>1.5 course: Pathology and Toxicology 4980E (Research Project = 1.5 courses) 1.0 course from: Medical Sciences 4100F/G, Pathology 4200A/B, 4000-level courses in Pharmacology (with the exception of 4980E). 1.0 course: Pathology 4400B and 4500B</p> <p>A minimum average of 70% is required in all Pharmacology courses</p>	<p>Year 4: 3.0 – 3.5 courses</p> <p>1.5 course: Pharmacology 4980E (Research Project = 1.5 courses) 1.5 courses from: Pharmacology courses at the 4000-level 0.5 course from (if not already taken): Chemistry 2210A, 2211A, 2214B, 2223B, Pathology 3240A, or Epidemiology 2200B is required in Years 2 – 4</p>

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Physiology	Physiology and Pharmacology
<p>Year 2: 3.0 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 1.5 courses: Biology 2581B, 2382B and 2290F/G 0.5 course: Chemistry 2213A 0.5 course from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Students often decide that they want to take either Anatomy and Cell Biology 3309 or 3319 in Year 3 or 4, making it unnecessary to take two half courses from the list of "1.0 course from ..." (see Year 3) Chemistry 2223B is recommended, however, in Year 2 (even if students choose to take either ACB 3309 or 3319 in Year 3 or 4) as it gives flexibility to register in alternative modules in Year 3 (Biochemistry, Medical Cell Biology, Microbiology and Immunology). 	<p>Year 2: 3.0 REQUIRED courses</p> <p>0.5 course: Biochemistry 2280A 0.5 course: Chemistry 2213A 1.5 courses: Biology 2581B, 2382B and 2290F/G 0.5 course from: Biology 2244A/B or Statistics 2244A/B</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Although not included in the module, Chemistry 2223B is recommended in Year 2 as it gives flexibility to register in alternative modules in Year 3 (Biochemistry, Medical Cell Biology, Microbiology and Immunology). Students could take Pharmacology 2060B in Year 2 to see if they like the area of Pharmacology.
<p>Year 3: 2.0 – 3.0 courses</p> <p>2.0 courses: Physiology 3120, 3130Y and 3140A 1.0 course from: Anatomy and Cell Biology 3309, 3319, Biology 2471B, 2601A, 3338A, 3592A, 3595A, Chemistry 2223B, Medical Biophysics 3501F, 3503G, 3505F, 3507G, if not completed in Year 2</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Physiology 3130Y is a half laboratory course that runs all year. Students will end up with a heavier load in one term – in one term, students will take 5 courses and Physiology 3130Y, and in the other term, they will take 4 courses and Physiology 3130Y. Registration in Physiology 3130Y requires a minimum average of 75% in the previous year. 	<p>Year 3: 3.5 courses</p> <p>2.0 courses: Physiology 3120, 3130Y, 3140A 1.5 courses: Pharmacology 3620 and 3580Y</p> <p>Points to consider:</p> <ul style="list-style-type: none"> Pharmacology 3580Y and Physiology 3130Y are both half lab courses that run all year. Students will take 4 courses each term, in addition to the two Y courses. Registration in Physiology 3130Y and Pharmacology 3580Y requires a minimum average of 75% in the previous year.
<p>Year 4: 3.5 courses</p> <p>1.5 course: Physiology 4980E (Research Project = 1.5 courses) 2.0 courses from: Physiology courses at the 4000-level</p>	<p>Year 4: 3.0 or 3.5 courses:</p> <p>1.5 course: Physiology 4980E or Pharmacology 4980E (Research Project = 1.5 courses) 1.0 course from: Physiology courses at the 4000-level 1.0 course from: Pharmacology courses at the 4000-level</p>

