

1-UNIT COURSES AVAILABLE TO ALL BIOCHEMISTRY AND MOLECULAR BIOLOGY as well as MEDICAL SCIENCES GRADUATE STUDENTS\*

There are a total of 18 x 1-unit courses (formerly called modules). In any given year, 14 x 1-unit courses will be offered. 10 will be offered annually, and 8 biennially (i.e. once every 2 years).  
Of the biennial 1-unit courses (which are are somewhat more specialized), 4 are offered on even number years and the other 4 on odd numbered years.

THE NINE 1-Unit COURSES HIGHLIGHTED IN DARK COLOURS BELOW ARE INTENDED AS THE REPLACEMENT FOR MDSC 721, AND BMB PROGRAM STUDENTS SHOULD TAKE ≥2 OF THESE AS PART OF THEIR CORE CURRICULUM, ON TOP OF THE MANDATORY MDGE 721 OUTLINED BELOW. (As a reminder: PhD students need to take courses totalling 9 units, and MSc students need to take courses totalling 6 units)

| FALL SEMESTER | CODE     | MONTH    | F2019 | F2020 | F2021 | F2022 | TITLE  | LECTURERS                             | TOTAL      | START       | END         | DAYS |
|---------------|----------|----------|-------|-------|-------|-------|--|---------------------------------------|------------|-------------|-------------|------|
|               | MDGE 621 | Sept-Oct | ✓     | ✓     | ✓     | ✓     | Anti-tumour Drug Discovery and Current Cancer Therapies          | Dr. Aru Narendran                     | 8 lectures | 10:00:00 AM | 11:30:00 AM | T/R  |
|               | MDGE 622 | Oct-Nov  | ✓     | ✗     | ✓     | ✗     | Proteomics & Metabolomics  | Dr. David Schriemer                   | 8 lectures | 10:00:00 AM | 11:30:00 AM | T/R  |
|               | MDGE 623 | Nov-Dec  | ✗     | ✓     | ✗     | ✓     | Tumour Immunology and Immunotherapy                              | Dr. Douglas Mahoney                   | 8 lectures | 10:00:00 AM | 11:30:00 AM | T/R  |
|               | MDGE 722 | Sept-Oct | ✓     | ✓     | ✓     | ✓     | Nucleic Acids, DNA Replication, Transcription and RNA Signalling | Drs. James McGhee & Susan Lees-Miller | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |
|               | MDGE 723 | Oct-Nov  | ✓     | ✓     | ✓     | ✓     | Translation, Protein Folding and Post-Transational Modification  | Drs. Savraj Grewal & Justin MacDonald | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |
|               | MDGE 631 | Nov-Dec  | ✗     | ✓     | ✗     | ✓     | Introduction to Nervous System Development                       | Drs. Minh Dang Nguyen & Guang Yang    | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |
|               | MDGE 632 | Oct-Nov  | ✓     | ✓     | ✓     | ✓     | Principles of Light Microscopy                                   | Drs. Pina Colarusso & Grant Gordon    | 8 lectures | 13:00:00 PM | 15:30:00 PM | M/W  |
|               | MDGE 633 | Nov-Dec  | ✓     | ✓     | ✓     | ✓     | Advanced Techniques in Optical Microscopy                        | Drs. Pina Colarusso & Grant Gordon    | 8 lectures | 13:00:00 PM | 15:30:00 PM | M/W  |

| WINTER SEMESTER | CODE     | MONTH   | W2020 | W2021 | W2022 | W2023 | TITLE   | LECTURERS                                | TOTAL      | START       | END         | DAYS |
|-----------------|----------|---------|-------|-------|-------|-------|---|--|------------|-------------|-------------|------|
|                 | MDGE 624 | Jan-Feb | ✓     | ✓     | ✓     | ✓     | Cell Cycle Regulation and Aging                       | Drs. Tara Beattie & Karl Riabowol        | 8 lectures | 10:00:00 AM | 11:30:00 AM | T/R  |
|                 | MDGE 625 | Feb-Mar | ✓     | ✗     | ✓     | ✗     | Epigenetics and Chromatin Dynamics                    | Drs. Jennifer Cobb & Aaron Goodarzi      | 8 lectures | 10:00:00 AM | 11:30:00 AM | T/R  |
|                 | MDGE 626 | Mar-Apr | ✓     | ✗     | ✓     | ✗     | DNA Damage Signalling & Repair                        | Drs. Susan Lees-Miller & Gareth Williams | 8 lectures | 10:00:00 AM | 11:30:00 AM | T/R  |
|                 | MDGE 724 | Jan-Feb | ✓     | ✓     | ✓     | ✓     | Introduction to Bioinformatics Resources              | Drs. Sorana Morrissey & Laura Sycuro     | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |
|                 | MDGE 725 | Feb-Mar | ✓     | ✓     | ✓     | ✓     | Applied Genomics                                      | Drs. Maja Tarailo-Graovac & Marco Gallo  | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |
|                 | MDGE 726 | Mar-Apr | ✗     | ✓     | ✗     | ✓     | Applied Structural Biology                            | Drs. David Schriemer & Gareth Williams   | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |
|                 | MDGE 627 | Jan-Feb | ✓     | ✓     | ✓     | ✓     | Cancer Cell Biology - Fundamentals and Current Topics | Drs. Shirin Bonni & Donna Senger         | 8 lectures | 10:00:00 AM | 11:30:00 AM | M/W  |
|                 | MDGE 628 | Feb-Mar | ✓     | ✗     | ✓     | ✗     | Cancer Cell Invasion, Metastasis and Angiogenesis     | Dr. Paul Beaudry                         | 8 lectures | 10:00:00 AM | 11:30:00 AM | M/W  |
|                 | MDGE 629 | Mar-Apr | ✗     | ✓     | ✗     | ✓     | Signal Transduction Pathways and Cancer               | Drs. Shirin Bonni & Morley Hollenburg    | 8 lectures | 10:00:00 AM | 11:30:00 AM | M/W  |

| The SPRING SEMESTER MDGE 721 is now mandatory for all future BMB program students and current students WHO HAVE **NOT** ALREADY TAKEN MDSC 721 |          |       |       |       |       |       |  |  |            |             |             |      |
|--|----------|-------|-------|-------|-------|-------|--|--|------------|-------------|-------------|------|
| SPRING   | CODE     | MONTH | S2019 | S2020 | S2021 | S2022 | TITLE  | LECTURERS  | TOTAL      | START       | END         | DAYS |
|  | MDGE 721 | May   | ✓     | ✓     | ✓     | ✓     | Biochemistry and Molecular Biology: Scientific Method, Data Analysis & Communication | Drs. Jennifer Cobb, Aaron Goodarzi, Sarah Childs | 8 lectures | 15:00:00 PM | 16:30:00 PM | T/R  |

\* Graduate Students in other programs can take these by request and permission from the coordinator (pending availability)

IMPORTANT: THESE DETAILS ARE NEARLY FINALIZED FOR 2019-2020. IT IS POSSIBLE THAT THERE WILL BE CHANGES IN FUTURE YEARS, BUT THIS IS THE PROJECTED PLAN AS OF RIGHT NOW. MORE INFORMATION ON ALL MODULES WILL BECOME AVAILABLE AND WILL BE POSTED ONLINE BY JUNE 2019. REGISTRATION FOR FALL 2019 MODULES WILL BECOME AVAILABLE IN JULY-AUGUST OF 2019.