## BIOMEDICAL SCIENCE (BIOM)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
<th>Department(s)</th>
<th>Location(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOM*6070</td>
<td>Pregnancy, Birth and Perinatal Adaptations Summer Only</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6100</td>
<td>Research Proposal in Biomedical Sciences Fall and Winter</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6110</td>
<td>Research Methods in Biomedical Sciences Fall and Winter</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6130</td>
<td>Vertebrate Developmental Biology Unspecified</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6160</td>
<td>Cellular Biology Unspecified</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6300</td>
<td>Cancer Biology: Basic Concepts and Research Tools Winter Only</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6310</td>
<td>Advanced Cancer Biology Fall Only</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6400</td>
<td>Critical Thinking in Medical Research Fall Only</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6490</td>
<td>Introduction to Drug Development Winter Only</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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<tr>
<td>BIOM*6570</td>
<td>Biochemical Regulation of Physiological Processes Unspecified</td>
<td>[0.50]</td>
<td>Department of Biomedical Sciences</td>
<td>Guelph</td>
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</tbody>
</table>
BIOM*6601 Special Topics in Reproductive Biology and Biotechnology Unspecified [0.25]
Permits in-depth exploration of interdisciplinary aspects of biomedical research. Topics such as inflammation, reproductive immunology and neoplasia have been offered.
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6602 Applied Reproductive Biotechnologies Fall and Winter Reg Required [0.50]
The production of embryos in the laboratory requires considerable manual dexterity and expertise as well as theoretical knowledge and problem-solving skills. This is a 2-semester course consisting of laboratory training in bovine in vitro embryo production, seminars, field trips, group discussions and the placement in IVF clinics.
Restriction(s): Instructor consent required.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6610 Vascular Biology Unspecified [0.50]
An interdisciplinary course in which the interrelationships of vascular vessels, cellular elements and the maintenance of vascular integrity are examined. Structural-functional relationships in vascular biology are explored through seminar presentations, group discussions and small group participation in problem based examples of vascular dysfunction.
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6701 Special Topics in Development, Cell and Tissue Morphology Unspecified [0.25]
Permits further in depth study of developmental and morphological sciences.
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6702 Special Topics in Development, Cell and Tissue Morphology Unspecified [0.50]
See BIOM*6701
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6712 Special Topics in Physiology and Biochemistry Unspecified [0.50]
This course involves an appropriate combination of an experimental procedure (or project), seminars, selected reading or a literature review outside the thesis subject, developed according to the student’s requirements.
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6721 Special Topics in Pharmacology-Toxicology Unspecified [0.25]
This course will comprise a combination of an experimental procedure (or project), seminars, selected reading or a literature review outside the thesis subject, developed based on the student’s requirements. Topics could include clinical pharmacology/toxicology, pharmaco-epidemiology/economics, gerontological or perinatal pharmacology and toxicokinetics.
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6722 Special Topics in Biomedical Pharmacology-Toxicology Unspecified [0.50]
See BIOM*6721
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6800 Gene Expression in Health and Disease Winter Only [0.50]
This course presents the molecular concepts of gene expression and the functional consequences of abnormal expression in pathological conditions. The conceptual, methodological and applied aspects of gene expression will be illustrated through student and faculty seminars, written reports, group discussions, and debates.
Restriction(s): Restricted to Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6900 Research Project in Biomedical Sciences Summer, Fall, and Winter [1.00]
This course is a lab- or literature review-based, one-semester research project course for students in the course-based Master of Biomedical Sciences (MBS). As part of this course, students will complete a research paper and grant proposal pertaining to the research topic as well as a poster presentation of the project.
Restriction(s): Restricted to Master of Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6910 Practicum in Biomedical Sciences Summer Only [1.00]
This is a one-semester practicum project course for students in the Master of Biomedical Sciences (MBS) program. Students receive applied training by working in a host organization or agency for a 12- to 14-week period, focusing on a major project of significance to the host.
Restriction(s): Restricted to Master of Biomedical Sciences students.
Department(s): Department of Biomedical Sciences
Location(s): Guelph

BIOM*6920 Comparative Stem Cell Biology and Regenerative Medicine Winter Only [0.50]
The emerging field of translational regenerative medicine is explored in depth through a series of seminars, discussions, literature review and oral presentations. Specific topics include regenerative therapies for osteoarthritis, cell-based therapies in non-traditional model species, biomaterials, and novel therapeutic applications in veterinary medicine.
Restriction(s): Instructor consent required
Department(s): Biomedical Sciences
Location(s): Guelph
BIOM*6930 Concepts in Human Regenerative Medicine  Fall and Winter
Reg Required  [1.00]
This course provides a broad overview of the field of human regenerative medicine (RM), including cell-based disease models, emerging technologies, clinical applications and ethical, commercial and regulatory challenges to moving stem cell therapies from the lab to the clinic.
Restriction(s): Instructor consent required.
Department(s): Biomedical Sciences
Location(s): Guelph