The following Motions and Documents were considered by the GFCAcademic Planning Committee at its Wednesday, October 26, 2016 meeting:

Agenda Title: **Proposed Changes to the Statement on Equity in Student Affairs**

CARRIED MOTION: THAT the GFC Academic Planning Committee, under delegated authority from General Faculties Council, recommend to General Faculties Council, proposed changes to the Statement on Equity in Student Affairs found in the section University Regulations and Information for Students/General University Policies/Statement on Equity in Student Affairs of the University Calendar as submitted by the Office of the Registrar and as set forth in Attachment 1, to take effect upon final approval.

Final Item: 7

Agenda Title: **Proposed Changes to the University Equity Statement in the Academic Staff Posting and Advertising Procedure and the Support Staff Posting and Advertising Procedure**

CARRIED MOTION: THAT the GFC Academic Planning Committee, with delegated authority from General Faculties Council, recommend to General Faculties Council the proposed changes to the University Equity Statement in the Academic Staff Posting and Advertising Procedure and the Support Staff Posting and Advertising Procedure (UAPPOL) as submitted by the Provost and Vice-President (Academic), and the Vice-President (Finance and Administration), and as set forth in Attachment 1, to take effect upon final approval.

Final Item: 8

Agenda Title: **Proposal from the Department of Biological Sciences, Faculty of Science, to change the names of three programs: Ecology, Evolution and Environmental Biology (newly proposed name for Ecology); Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics)**

CARRIED MOTION: THAT the GFC Academic Planning Committee approve, with delegated authority from General Faculties Council, the following program name changes: Ecology, Evolution and Environmental Biology (newly proposed name for Ecology); Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics), in the Department of Biological Sciences, as submitted by the Faculty of Science, and as set forth in Attachments 1-4, to take effect 2017-2018.

Final Item: 9

OUTLINE OF ISSUE
Action Item

Agenda Title: **Proposed Changes to the Statement on Equity in Student Affairs**

Motion: THAT the GFC Academic Planning Committee, under delegated authority from General Faculties Council, recommend to General Faculties Council, proposed changes to the Statement on Equity in Student Affairs found in the section University Regulations and Information for Students/General University Policies/Statement on Equity in Student Affairs of the *University Calendar* as submitted by the Office of the Registrar and as set forth in Attachment 1, to take effect upon final approval.

Item

Action Requested	☐Approval ☒Recommendation
Proposed by	Lisa Collins, Vice-Provost and University Registrar
Presenter	Lisa Collins, Vice-Provost and University Registrar

Details

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	To revise the Student Statement on Equity to reflect changes to *Alberta Human Rights* Legislation and changing norms in diversity and equity within the academy.
The Impact of the Proposal is	The proposed changes align with the University Statement on Equity which is used on all academic and support staff job postings as outlined in the UAPPOL Procedures for *Academic Staff Posting and Advertising* and *Support Staff Posting and Advertising.*
Replaces/Revises (eg, policies, resolutions)	Revises Statement on Equity in Student Affairs, the General Admission Requirements and the Evaluation Procedures and Grading System of the *University Calendar*
Timeline/Implementation Date	2017-2018 *University Calendar*
Estimated Cost and funding source	N/A
Next Steps (ie.: Communications Plan, Implementation plans)	The revised Statement on Equity in Student Affairs would be included in the 2017-18 University Calendar.
Supplementary Notes and context	

Engagement and Routing (Include meeting dates)

Participation: (parties who have seen the proposal and in what capacity) <For further information see the link posted on the Governance Toolkit section Student Participation Protocol>	*Those who have been **informed**:* • Jay Spark Vice-Provost & Associate VP (HR) and the Office of Faculty Relations - August 19, 2015
	*Those who have been **consulted**:* • Heather Zwicker, Vice-Provost Interim Dean, FGSR - August 20, 2015 • Employment and Equity Advisory Committee (HRS) - September 17, 2015 • Jax Oltean, University General Counsel - September 21, 2015 • Mike MacGregor, Vice Provost and Associate Vice-President,

	Information Services and Technology - September 26, 2015 • Dr. Fraser Brenneis, Vice-Dean, Education, Faculty of Medicine and Dentistry - December 23, 2016 • Dr. Lise Gotell, Acting Dean, Faculty of Arts - December 23, 2016 • Roger Graves, Director, Centre for Teaching and Learning - December 23, 2015 • Cody Bondarchuk, VP External, Students Union – February 8, 2016 • Harsh Thaker, Graduate Students Association – February 8, 2016 • Human Resource Services Team – March 7, 2016 • Vice-Provost Council – April 4, 2016 • Council on Aboriginal Initiatives - April 17, 2016 • Phyllis Clark, VP Finance and Administration – April 26, 2016 • President's Executive Committee (Operations) - April 28, 2016 • Brad Hamdon, University General Counsel – April 29, 2016 • Committee on the Learning Environment - June 1, 2016 • Dean's Council – June 1, 2016 • Academic standards committee - May 19, 2016 – For review/advice • Employment and Equity Advisory Committee – August 9, 2016
	*Those who are actively **participating**:* The Statement on Equity Working Group is responsible for the development of the University and Student Statements of Equity. The working group is composed of Kris Wells, Chris Daberer, Institute for Sexual Minority Studies and Services Wade King, Office of Safe Disclosure and Human Rights Shana Dion, Aboriginal Student Services Centre Norma Rodenburg, Office of the Registrar Catherine Anley, Human Resource Services
Approval Route (Governance) (including meeting dates)	GFC Academic Standards Committee (recommendation) – September 15, 2016 GFC Academic Planning Committee (recommendation) - October 12, 2016 GFC Executive Committee - October 31, 2016 General Faculties Council - November 21, 2016
Final Approver	General Faculties Council

Alignment/Compliance

Alignment with Guiding Documents	*For the Public Good* Values: We value diversity, inclusivity, and equity across and among our people, campuses, and disciplines. GOAL: **BUILD** a diverse, inclusive community of exceptional students, faculty, and staff from Alberta, Canada, and the world. Objective 1: Build a diverse, inclusive community of exceptional

	undergraduate and graduate students from Edmonton, Alberta, Canada, and the world.
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. The **Alberta Human Rights Act**: defines 13 grounds for protection of rights in five areas including employment practices, applications and ads (Preamble; Section 3(1)): "WHEREAS it is recognized in Alberta as a fundamental principle and as a matter of public policy that all persons are equal in: dignity, rights and responsibilities without regard to race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation; Discrimination re publications, notices 3(1) No person shall publish, issue or display or cause to be published, issued or displayed before the public any statement, publication, notice, sign, symbol, emblem or other representation that (a) indicates discrimination or an intention to discriminate against a person or a class of persons, or (b) is likely to expose a person or a class of persons to hatred or contempt because of the race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or class of persons. 2. ***Post-Secondary Learning Act (PSLA)***: The *PSLA* gives GFC responsibility, subject to the authority of the Board of Governors, over academic affairs (Section 26(1)). Further, the *PSLA* gives the Board of Governors authority over certain admission requirements and rules respecting enrolment (Sections 60(1)(c) and (d)). The Board has delegated its authority over admissions requirements and rules respecting enrolment to GFC. GFC has thus established an Academic Standards Committee (GFC ASC). 3. **GFC Academic Standards Committee** Terms of Reference (3. Mandate) "The ASC is responsible for making recommendations and/or for providing advice to GFC, its Executive Committee, and/or the GFC Academic Planning Committee (APC) on the matters set out below, which include such areas as admissions and transfer, including admission and transfer to Faculties, admission of Open Studies students, academic standing policies and general university admission policies, and all institutional marking and grading policies and/or procedures." […] "B. Admission and Transfer, Academic Standing, Marking and Grading, Term Work, Examinations, International Baccalaureate (IB), Advanced Placement (AP) i. All proposals from the Faculties or the Administration related to admission and transfer, to the academic standing of students, to

	institutional marking and grading policies and/or procedures and to term work policies and procedures are submitted to the Provost and Vice-President (Academic) (or delegate) who chairs the GFC Academic Standards Committee. ASC will consult as necessary with the Faculties and with other individuals and offices in its consideration of these proposals. (GFC 29 SEP 2003) (GFC 31 MAY 2005) (EXEC 04 DEC 2006) […] v. ASC provides advice or recommends to APC on general University admission or transfer policies affecting students, including policies which affect Open Studies." 4. **GFC Academic Planning Committee** Terms of Reference (3. Mandate) "7. Admission, Transfer and Academic Standing a. To consider advice or recommendation from the GFC ASC on proposals for the establishment of or change to general University admission or transfer policies affecting students, including policies affecting Open Studies students, and to act for GFC in approving policies which in APC's view are minor or routine; and to recommend to GFC on proposals involving major change." 5. **GFC Executive Committee Terms of Reference** **"**5. Agendas of General Faculties Council GFC has delegated to the Executive Committee the authority to decide which items are placed on a GFC Agenda, and the order in which those agenda items appear on each GFC agenda. […] When recommendations are forwarded to General Faculties Council from APC, the role of the Executive shall be to decide the order in which items should be considered by GFC. The Executive Committee is responsible for providing general advice to the Chair about proposals being forwarded from APC to GFC." **6. UAPPOL Admissions Policy** Those responsible for admissions decisions will interpret and apply the established admission requirements and regulations, in a transparent process, in order to admit the best-qualified applicants from the total number of applicants who are eligible for admission, in accordance with Faculty enrolment targets or program quotas. The basis on which a student is admitted, and any academic provisions of admission, will not diminish or eliminate that student's rights and responsibilities, as detailed in the University Calendar.

Attachments (each to be numbered 1 - 2)

1. Attachment 1 (pages 1 - 2) Proposed Changes to Statement on Equity in Student Affairs

Prepared by: Kate Peters, Portfolio Initiatives Manager, Office of the Provost and Vice-President Academic

Office of the Registrar
Proposed Calendar Change

University Regulations and Information for Students /
General University Policies/Statement on Equity in Student Affairs /
Statement on Equity in Student Affairs

~~**Statement on Equity in Student Affairs**~~ The University~~ of Alberta strives to provide a fair, open and supportive environment for students.~~ Acknowledg~~ing~~ the diversity of the Canadian population~~,~~ and ~~the~~ ~~University's~~ obligation to ~~remain~~ ~~open~~ to all sectors of society~~, the University of Alberta encourages applications for admission from all qualified persons including Aboriginal peoples, persons with disabilities, visible minorities, and women. In this manner the University~~ demonstrates its commitment to improving the representativeness of its communities. The Alberta Human Rights Act, ~~sections 3 and 11.1, requires that no individual be discriminated against on the basis of~~ race, religious beliefs, color, gender, physical disability, mental disability, marital status, age, ancestry, or place of origin, ~~family status, or source of income~~ except where the ~~discrimination can be shown to be reasonable and justifiable~~. The University of Alberta ~~recognizes and accepts its responsibility to comply with the requirements of this Act in its consideration of~~ students for admission, promotion, and graduation. Of its own volition the University of Alberta does not discriminate on the basis of ~~sexual orientation or~~ political belief. Subject to the limits set out in the Alberta Human Rights Act, the University of Alberta affirms its right to determine the criteria by which applicants are accepted into the University community. Individuals seeking admission to or continuance in academic programs must meet the qualifications and performance standards set out by the	**University Equity Statement in Student Affairs** The University recognizes the diversity of the Canadian population and obligation to be accessible to all sectors of society. The University therefore encourages diversity and welcomes applications from all qualified persons including women, members of visible minorities, First Nations, Métis, and Inuit, persons with disabilities, and sexual and gender minorities. The *University Calendar* will use gender inclusive language when referring to members of the University Community. This demonstrates the University's commitment to accommodating and improving the representativeness of its diverse communities. The *Alberta Human Rights Act,* prohibits discrimination against any person because of race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, ancestry, place of origin, marital status, source of income, family status or sexual orientation, except where the distinction can be shown to be reasonable and justifiable in the circumstances. The University of Alberta complies with the *Act* when it considers students for admission, promotion, and graduation. Of its own volition, the University of Alberta does not discriminate on the basis of political belief. Subject to the limits set out in the *Alberta Human Rights Act,* the University of Alberta affirms its right to determine the criteria by which applicants are accepted into the University community. Individuals seeking

University's governing bodies.	admission to or continuance in academic programs must meet the qualifications and performance standards set out by the University's governing bodies.
General Admission Requirements (new) In addition to the general University admission requirements detailed below, Faculties have additional admission requirements for each program. Specific admission requirements are detailed in ~~§~~16~~.~~ (...)	**General Admission Requirements** The University of Alberta strives to provide an inclusive, respectful, equitable, and supportive environment for students. See Statement on Equity in Student Affairs. In addition to the general University admission requirements detailed below, Faculties have additional admission requirements for each program. Specific admission requirements are detailed in Admission Requirements by Faculty (...)

New	The University of Alberta acknowledges that we are located on Treaty 6 territory, and respects the histories, languages, and cultures of the First Nations, Métis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our vibrant community.

OUTLINE OF ISSUE
Action Item

Agenda Title: **Proposed Changes to the University Equity Statement in the Academic Staff Posting and Advertising Procedure and the Support Staff Posting and Advertising Procedure**

Motion: THAT the GFC Academic Planning Committee, under delegated authority from General Faculties Council, recommend to General Faculties Council, proposed changes to the University Equity Statement in the Academic Staff Posting and Advertising Procedure and the Support Staff Posting and Advertising Procedure (UAPPOL) as set forth in Attachment 1, to take effect upon final approval.

Item

Action Requested	☐Approval ☒Recommendation
Proposed by	Provost and Vice-President (Academic); and Vice-President (Finance and Administration
Presenter	Wayne Patterson, Executive Director and Acting Associate Vice-President (Human Resources)

Details

Responsibility	Provost and Vice-President (Academic) and Vice-President (Finance and Administration)
The Purpose of the Proposal is (please be specific)	To revise the University Equity Statement to reflect changes to *Alberta Human Rights* Legislation and changing norms in diversity and equity within the academy.
The Impact of the Proposal is	The University Equity Statement is used on all academic and support staff job postings as outlined in the UAPPOL Procedures for *Academic Staff Posting and Advertising* and *Support Staff Posting and Advertising.* The statement would reflect the language commonly used in employment equity statements and includes the addition of gender expression and gender identity which are now protected grounds in legislation. References to designated groups identified in the *Employment Equity Act* have been removed as the groups identified are now broader and align with *Alberta Human Rights* legislation. The proposed changes align with the Statement on Equity in Student Affairs in the *University Calendar.*
Replaces/Revises (eg, policies, resolutions)	Revises the defined University Equity Statement to indicate the University Employment Equity Statement in the UAPPOL *Academic Staff Posting and Advertising* and *Support Staff Posting and Advertising.*
Timeline/Implementation Date	Upon approval
Estimated Cost and funding source	N/A
Next Steps (ie.: Communications Plan, Implementation plans)	The University Employment Equity Statement and the University Territorial Statement will be included on the Human Resource Services website.
Supplementary Notes and context	Proposed changes to the Statement on Equity in Student Affairs in the *University Calendar* will go forward with this proposal to the GFC Executive Committee and General Faculties Council. In 2011, the Board of Governors approved UAPPOL human resource policies and procedures to take effect July 1, 2011. At that time, the

	Board of Governors noted that, following approval, the respective Vice-Presidents would manage the procedures/procedural changes within the policy without having to return to the Board of Governors for ongoing approval. This authority has not been reflected in the documents to date; at this time, the proposal seeks to have this confirmed. In addition, the changes to the Equity Statement which align with current legislative requirements, are also an important statement of the University's position and practice in this area. Work is currently being conducted to develop a more overarching University statement.

Engagement and Routing (Include meeting dates)

Participation: (parties who have seen the proposal and in what capacity) <For further information see the link posted on the Governance Toolkit section Student Participation Protocol>	*Those who have been **informed**:* • Jay Spark Vice-Provost & Associate VP (HR) and the Office of Faculty Relations - August 19, 2015
	*Those who have been **consulted**:* • Heather Zwicker, Vice-Provost Interim Dean, FGSR - August 20, 2015 • Employment and Equity Advisory Committee (HRS) - September 17, 2015 • Jax Oltean, University General Counsel - September 21, 2015 • Mike MacGregor, Vice Provost and Associate Vice-President, Information Services and Technology - September 26, 2015 • Fraser Brenneis, Vice-Dean, Education, Faculty of Medicine and Dentistry - December 23, 2016 • Lise Gotell, Acting Dean, Faculty of Arts - December 23, 2016 • Roger Graves, Director, Centre for Teaching and Learning - December 23, 2015 • Cody Bondarchuk, VP External, Students Union – February 8, 2016 • Harsh Thaker, Graduate Students Association – February 8, 2016 • Human Resource Services Team – March 7, 2016 • Vice-Provost Council – April 4, 2016 • Council on Aboriginal Initiatives - April 17, 2016 • Phyllis Clark, VP Finance and Administration – April 26, 2016 • President's Executive Committee (Operations) - April 28, 2016 • Brad Hamdon, University General Counsel – April 29, 2016 • Committee on the Learning Environment - June 1, 2016 • Dean's Council – June 1, 2016 • Academic standards committee - May 19, 2016 – For review/advice • Employment and Equity Advisory Committee – August 9, 2016, September 23, 2016 • Jax Oltean, University General Counsel – September 30, 2016
	*Those who are actively **participating**:* The Statement on Equity Working Group is responsible for the development of the University and Student Statements of Equity. The working group is composed of

	Kris Wells, Chris Daberer, Institute for Sexual Minority Studies and Services Wade King, Office of Safe Disclosure and Human Rights Shana Dion, Aboriginal Student Services Centre Norma Rodenburg, Office of the Registrar Catherine Anley, Human Resource Services
Approval Route (Governance) (including meeting dates)	GFC Academic Planning Committee - October 12, 2016 GFC Executive Committee - October 31, 2016 General Faculties Council - November 21, 2016 Board Human Resources and Compensation Committee – February 28, 2017 Board of Governors – March 17, 2017
Final Approver	Board of Governors

Alignment/Compliance

Alignment with Guiding Documents	*For the Public Good* Values: We value diversity, inclusivity, and equity across and among our people, campuses, and disciplines. GOAL: **BUILD** a diverse, inclusive community of exceptional students, faculty, and staff from Alberta, Canada, and the world. Objective 1: Build a diverse, inclusive community of exceptional undergraduate and graduate students from Edmonton, Alberta, Canada, and the world.
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. The **Alberta Human Rights Act**: defines 13 grounds for protection of rights in five areas including employment practices, applications and ads (Preamble; Section 3(1)): "WHEREAS it is recognized in Alberta as a fundamental principle and as a matter of public policy that all persons are equal in: dignity, rights and responsibilities without regard to race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation; Discrimination re publications, notices 3(1) No person shall publish, issue or display or cause to be published, issued or displayed before the public any statement, publication, notice, sign, symbol, emblem or other representation that (a) indicates discrimination or an intention to discriminate against a person or a class of persons, or (b) is likely to expose a person or a class of persons to hatred or contempt because of the race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or class of persons. 2. ***Post-Secondary Learning Act (PSLA)***:

"Powers of general faculties council
26.(1) Subject to the authority of the board, a general faculties council is responsible for the academic affairs of the university and, without restricting the generality of the foregoing, has the authority to […]
(o) make recommendations to the board with respect to […] procedures in respect of appointments, promotions, salaries, tenure and dismissals"

4. **GFC Academic Planning Committee** Terms of Reference (3. Mandate)

"The Academic Planning Committee (APC) is GFC's senior committee dealing with academic, financial and planning issues"

> "15. Other
> a. To recommend to the Board of Governors and/or GFC on any other matter deemed by APC to be within the purview of its general responsibility."

5. **GFC Executive Committee Terms of Reference**

> **"**5. Agendas of General Faculties Council
> GFC has delegated to the Executive Committee the authority to decide which items are placed on a GFC Agenda, and the order in which those agenda items appear on each GFC agenda. […]
>
> When recommendations are forwarded to General Faculties Council from APC, the role of the Executive shall be to decide the order in which items should be considered by GFC. The Executive Committee is responsible for providing general advice to the Chair about proposals being forwarded from APC to GFC."

6. Board Human Resources and Compensation Committee (BHRCC) Terms of Reference:

"3. MANDATE OF THE COMMITTEE
Except as provided in paragraph 4 and in the Board's General Committee Terms of Reference, the Committee shall monitor, evaluate, advise and make decisions on behalf of the Board with respect to, and the Board delegates to the Committee responsibility and authority for, all policies and procedures affecting staff working conditions at the University and matters for collective bargaining and related service contracts. The Committee shall also consider any other matter delegated to the Committee by the Board.

> Without limiting the generality of the foregoing the Committee shall:
> (…)
>
> (g) review and approve material changes to personnel policies of the University that are outside the regular collective bargaining process and consider trends affecting such policies;

Attachments (each to be numbered 1 - 2)

1. Attachment 1 (pages 1 - 2) Proposed Changes to Statement on Equity in Student Affairs

Prepared by: Kate Peters, Portfolio Initiatives Manager, Office of the Provost and Vice-President Academic

Original Approval Date: May 13, 2011 **Effective Date: July 1, 2011**

Most Recent Approval Date:

Parent Policy: Recruitment Policy

Academic Staff Posting and Advertising Procedure

Office of Administrative Responsibility:	Human Resource Consulting Services and Faculty Relations
Approver:	~~General Faculties Council~~Provost and Vice-President (Academic) & ~~Board of Governors~~Vice-President (Finance and Administration)
Scope:	Compliance with this university policy/procedure extends to all Academic Staff, Administrators and Colleagues; and Support Staff as outlined and defined in Recruitment Policy (Appendix A and Appendix B)~~Compliance with University procedure extends to all members of the University community~~

Overview

The University has established **posting** and **advertising** procedures for the purpose of promoting transparency in recruitment, consistency in practice and the ability to attract qualified candidates who will contribute to the achievement of the University's goals and support the University's values. The University of Alberta hires on the basis of merit.

Purpose

These procedures outline the steps that must be followed in the posting and advertising of vacancies for **Faculty, Librarians, Faculty Service Officers, Administrative Professional Officers**, and **Temporary Appointments**.

PROCEDURE

GENERAL REQUIREMENTS FOR~~IN~~ POSTING AND ADVERTISING OF JOB VACANCIES

1. Continuing academic vacancies (Faculty, Administrative Professional Officer, Faculty Service Officer, and Librarian) will be posted on University of Alberta Careers website for a minimum of five business days.

2. Subject to the provisions of individual agreements for Temporary Appointments (Categories A2.0 and A3.0), it is recommended that temporary academic opportunities greater than one year be posted.

3. The University is committed to the principle of employment equity and welcomes applications from all qualified persons including women, members of visible minorities, First Nations, Metis and Inuit, persons with disabilities and sexual and gender minorities ~~the **designated groups**~~.

4. **Postings** and **advertisements** for vacancies at Faculté Saint-Jean may appear in English, French or both. Where the advertisement is in French, it will clearly state the requirement for oral and written competency in English.

5. Advertisements will appear simultaneously or later than postings on University of Alberta Careers website.

6. Postings and advertisements for faculty will include the Canadian preference **proviso statement** unless administrative duties comprise 51% or greater of the position.

WAIVERS AND EXCEPTIONS TO POSTING

7. In exceptional circumstances, the posting requirements for continuing academic positions may be waived with the prior approval of the Provost and Vice-President (Academic). The Provost and Vice-President (Academic) will advise the AASUA of the decision and report all waivers to the General Faculties Council annually. Requests for waiver of posting should be submitted to Human Resource Consulting Services.

8. Posting is not required when an incumbent's position is reclassified or converted from Support Staff to Administrative Professional Officer (unless a **foreign national** holds the position).

RULES RELATED TO FOREIGN NATIONALS

9. As per the federal government immigration advertising requirements, posting and advertising cannot be waived if foreign national applicants are to be considered.

a. Advertisements must appear in **designated Canadian national media**.

b. Any position in which teaching comprises 50% or more of the position must be advertised for a minimum of 30 days in the Canadian Association of University Teachers Bulletin and University Affairs (print or website) before foreign national applicants can be considered within the competition.

c. International advertisements must appear simultaneously or later than Canadian advertisements. The number of international media advertisements must not exceed the number of Canadian national advertisements.

UNIVERSITY EQUITY STATEMENT

10. All postings and advertisements will include the **University Employment Equity Statement**.

11. In **cross appointments**, the name of the external organization or institution may be included in the University Equity Statement or the equity statement of the external organization or institution may appear in conjunction with the University Equity Statement.

INITIATING THE PROCESS

12. If the hiring unit uses the services of a **search consultant**, the consultant must work with Human Resource Consulting Services and will follow the approved standards and templates for University of Alberta advertisements.

13. Hiring units initiate the posting and advertising process to create a new competition.

14. All postings and advertisements will include:

a. Position title and appointment category

b. Department/Unit

c. Major responsibilities and accountabilities

d. Rank (for Faculty, FSO and Librarian positions)

e. Required academic qualifications, knowledge, skills and abilities

f. Term of employment (if applicable)

g. Deadline date for applications or date when the application review process will begin

h. Contact information

ROLE OF HUMAN RESOURCE CONSULTING SERVICES

15. Human Resource Consulting Services will review and approve all postings and advertisements to:

a. Ensure the content is accurate and the information and advertising complies with federal government immigration requirements (where applicable)

b. Confirm rank and salary range (if applicable)

c. Ensure compliance with the University's posting and advertising standards and templates

ADVERTISING

16. If advertising is required, Human Resource Consulting Services will submit the approved advertising copy to the advertising agency for proofs and cost quotes.

17. Upon receipt of the proofs and cost quotes, the hiring unit will advise the advertising agency and Human Resource Consulting Services of the approved cost quotes and any final edits to the proof. The cost of advertising is the responsibility of the hiring unit.

DEFINITIONS

Any definitions listed in the following table apply to this document only with no implied or intended

institution-wide use. **[▲Top]**	
Posting	The placement of an advertisement for the recruitment of staff on the University of Alberta Careers website (careers.ualberta.ca).
Advertising	The placement of an advertisement for the recruitment of staff in appropriate media outside of the University to provide the greatest pool of qualified applicants.
Faculty, Librarians, Faculty Service Officers, Administrative Professional Officers, and Temporary Appointments	See *Recruitment Policy (Appendix A) Definition and Categories of Academic Staff and Colleagues* (categories A1.0 to A3.4)
~~**Designated Groups**~~	~~Women, Aboriginal persons, persons with disabilities, and visible minorities.~~
Postings	An internal communication designed for the recruitment of staff placed on the University of Alberta Careers website (careers.ualberta.ca).
Advertisements	An external communication designed for the recruitment of staff in appropriate media outside the University to provide the greatest pool of qualified ~~appliants~~applicants.
Proviso Statement	"All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority."
Foreign National	Any individual who is not a Canadian Citizen or Permanent Resident of Canada (Permanent Resident must continue to meet residency requirements).
Designated Canadian National Media	Print, electronic or other media chosen by the hiring unit to provide the greatest pool of qualified applicants and accepted as Canadian (national) media for the purposes of Service Canada's Labour Market Opinion.
University Employment Equity Statement	The University of Alberta is committed to an equitable, diverse, and inclusive workforce. We welcome applications from all qualified persons. We encourage women; First Nations, Métis and Inuit; members of visible minority groups; persons with disabilities; persons of any sexual orientation or gender identity and expression; and all those who may contribute to the further diversification of ideas and the University to apply.. ~~"The University of Alberta hires on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities and Aboriginal persons.~~"
Cross Appointments	Individuals appointed from an external organization or institution to work with the University on a full or part-time basis or an individual within the University appointed to an external organization or institution to work on a full or part-time basis. This may also refer to staff under categories A, B, or C under the *Recruitment Policy (Appendix A) Definition and Categories of Academic Staff and Colleagues* who hold an unpaid appointment in another department on campus.
Search Consultant	A member of an external agency contracted by the University to undertake

	recruitment.

FORMS

There are no forms for this Procedure. **[▲Top]**

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. **[▲Top]**

University of Alberta Careers (University of Alberta)

Recruitment Policy (Appendix A) Definition and Categories of Academic Staff, Administrators and Colleagues

Recruitment Policy (Appendix B) Definition and Categories of Support Staff (UAPPOL)

Original Approval Date: May 13, 2011 Effective Date: July 1, 2011

Most Recent Approval Date:

Parent Policy: Recruitment Policy

Support Staff Posting and Advertising Procedure

Office of Administrative Responsibility:	Human Resource Consulting Services
Approver:	Vice-President (Finance and Administration)~~Board of Governors~~
Scope:	Compliance with this university policy/procedure extends to all Academic Staff, Administrators and Colleagues and Support Staff as outlined and defined in Recruitment Policy (Appendix A and Appendix B). ~~Compliance with University procedure extends to all members of the University community~~

Overview

The University ~~has~~ establishes ad **posting** and **advertising** procedures to ~~for the purpose of~~ promot~~e~~ing transparency in recruitment, consistency in practice and ~~the ability~~ to attract qualified candidates who will contribute to the achievement of the University's goals **and support the University's values**. The University of Alberta hires on the basis of merit.

Purpose

This~~ese~~ procedure~~s~~ outlines the steps that must be followed for~~in the~~ posting and advertising ~~of~~ vacancies in~~for~~ **support staff** positions. The procedures comply~~are in compliance~~ with the *Collective Agreement between the Non-Academic Staff Association and the Governors of the University*.

PROCEDURE

GENERAL REQUIREMENTS FOR~~IN~~ POSTING AND ADVERTISING JOB VACANCIES

Longer than 12 Months

1. Once it has been determined that a vacant position of longer than 12 months in duration will be filled, that position will be posted, unless one of the following occurs in order of precedence:

   a. There is an individual performing the duties who was appointed by virtue of a posting (change in employee type), or

   b. The position will be filled due to a duty to accommodate, or

   c. It is a Non-Academic Staff Association (NASA) bargaining unit position and will be filled through redeployment or recall, or

   d. The parties (NASA and the University) agree to waive the posting procedure on a bargaining unit position.

   Postings will be on the University of Alberta Careers website for a minimum of five days.

12 Months or Less

2. For vacancies of 12 months or less:

   a. The vacancy can be posted at the manager's discretion. Such a posting will be classified as casual.

   b. The manager may determine that it is appropriate to fill a vacancy that will last 6 to 12 months with a temporary transfer or promotion of a current employee.

   i. Candidates from the immediate work group are eligible to express their interest.

ii. Where the supervisor deems it appropriate, individuals in other work groups may be invited to express their interest.

iii. The invitation to apply will normally include;

1. Position title

2. Department/Unit

3. Major responsibilities and accountabilities;

4. Qualifications, which may include education, experience and/or equivalent combination, knowledge, skills and abilities;

5. Expected duration;

6. Salary range;

7. Deadline date for expression of interest and method of application; and

8. Information about the selection process.

3. The University is committed to the principle of employment equity and welcomes applications from all qualified persons including women, members of visible minorities, First Nations, Metis and Inuit, persons with disabilities and sexual and gender minorities ~~the designated groups~~ .

4. A manager may choose to restrict eligibility for a position to applicants internal to the University.

5. Postings and advertisements for vacancies at Faculté Saint-Jean may appear in English, French or both. Where the advertisement is French, it will clearly state the requirement for oral and written competency in English.

6. Advertisements will not precede postings on the University of Alberta Careers website.

7. As per the federal government immigration advertising requirements posting and advertising cannot be waived if **foreign national** applicants are to be considered.

a. Advertisements must appear in **designated Canadian national media.**

b. International advertisements must not precede Canadian advertisements. The number of international media advertisements must not exceed the number of Canadian national advertisements.

UNIVERSITY EMPLOYMENT EQUITY STATEMENT

8. All postings and advertisements will include the **University Employment Equity Statement.**

INITIATING THE PROCESS

9. If the hiring unit uses the services of a **search consultant**, the consultant must work with Human Resource Consulting Services and will follow the approved standards and template for University of Alberta advertisements.

10. Hiring units initiate the posting and advertising process to create a new competition.

11. All postings and advertisements will include:

a. Position title and type

b. Department/Unit

c. Major responsibilities and accountabilities

d. Qualifications, which may include education, experience and/or equivalent combination, knowledge, skills and abilities;

e. Term of employment (if applicable)

f. Salary range

g. Deadline date for applications, if applicable

h. Contact information

ROLE OF HUMAN RESOURCE CONSULTING SERVICES

12. Human Resource Consulting Services will review and approve all postings and advertising to:

a. Ensure the content is accurate and reflects the current job through cross referencing the job fact sheet and the job evaluation

b. Ensure the content is accurate and the information and advertising reflects **bona fide occupational requirements** and complies with federal government immigration requirements (where applicable)

c. Confirm the salary range and/or evaluation level

d. Ensure compliance with the University's posting and advertising standards and templates

e. Screen for accommodation and recall obligations under the NASA Collective Agreement

ADVERTISING

13. If advertising is required, Human Resource Consulting Services will submit the approved advertising copy to the advertising agency for proofs and cost quotes.

14. Upon receipt of the proofs and cost quotes, the hiring unit will advise the advertising agency and Human Resource Consulting Services of the approved cost quotes and any final edits to the proof. The cost of advertising is the responsibility of the hiring unit.

DEFINITIONS

Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. **[▲Top]**	
Posting	An internal communication designed for the recruitment of staff placed on the University of Alberta Careers website (careers.ualberta.ca).
Advertising	An external communication designed for the recruitment of staff in appropriate media outside the University to provide the greatest pool of qualified applicants.
Support Staff	See *Recruitment Policy (Appendix B) Definition and Categories of Support Staff*
~~**Designated Groups**~~	~~Women, Aboriginal persons, persons with disabilities, and visible minorities as defined in the *Employment Equity Act*,.~~
Foreign National	Any individual who is not a Canadian Citizen or Permanent Resident of Canada. (Permanent Resident must continue to meet residency requirements).
Designated Canadian National Media	Print, electronic or other media chosen by the hiring unit to provide the greatest pool of qualified applicants and accepted as Canadian (national) media for the purposes of Service Canada's Labour Market Opinion.
University Employment Equity Statement	The University of Alberta is committed to an equitable, diverse, and inclusive workforce. We welcome applications from all qualified persons. We encourage women; First Nations, Métis and Inuit; members of visible minority groups; persons with disabilities; persons of any sexual orientation or gender identity and expression; and all those who may contribute to the further diversification of ideas and the University to apply. ~~The University of Alberta hires on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities and Aboriginal persons."~~
Search Consultant	A member of an agency contracted by the University to undertake recruitment.
Bona Fide Occupational Requirement (BFOR)	A standard or rule that is integral to carrying out the functions of a specific position. For a standard to be considered a BFOR, an employer has to establish that any accommodation or changes to the standard would create

	an undue hardship.

FORMS

Should a link fail, please contact uappol@ualberta.ca. **[▲Top]**

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. **[▲Top]**

University of Alberta Careers (University of Alberta)

Recruitment Policy (Appendix A) Definition and Categories of Academic Staff and Colleagues

Recruitment Policy (Appendix B) Definition and Categories of Support Staff (UAPPOL)

FINAL Item No. 9

OUTLINE OF ISSUE
Action Item

Agenda Title: **Proposal from the Department of Biological Sciences, Faculty of Science, to change the names of three programs: Ecology, Evolution and Environmental Biology (newly proposed name for Ecology); Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics)**

Motion: THAT the GFC Academic Planning Committee approve, with delegated authority from General Faculties Council, the following program name changes: Ecology, Evolution and Environmental Biology (newly proposed name for Ecology); Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics), in the Department of Biological Sciences, as submitted by the Faculty of Science, and as set forth in Attachments 1-4, to take effect 2017-2018.

Item

Action Requested	☒Approval ☐Recommendation
Proposed by	Jonathan Schaeffer, Dean, Faculty of Science Michael Caldwell, Chair, Department of Biological Sciences, Faculty of Science
Presenter	Jocelyn Hall, Associate Chair, Undergraduate, Department of Biological Sciences Brenda Leskiw, former Associate Dean, Faculty of Science

Details

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	To rename the following three programs in the Department of Biological Sciences (1) Ecology, Evolution and Environmental Biology (newly proposed name for Ecology); (2) Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and (3) Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics).
The Impact of the Proposal is	Students in renamed programs will be offered more flexibility in these programs as result of proposed changes. There will be no changes to our current course offerings. All students in the honors/specialization programs proposed for suspension will be given the opportunity to complete their programs.
Replaces/Revises (eg, policies, resolutions)	Existing Honors and Specialization programs in Department of Biological Sciences, Faculty of Science.
Timeline/Implementation Date	2017-2018
Estimated Cost and funding source	N/A
Next Steps (ie.: Communications Plan, Implementation plans)	Advertise changes in 2017-2018 Calendar. Implementation of changes in 2018-2019 Calendar.
Supplementary Notes and context	The Department of Biological Sciences is proposing a departmental-wide consolidation of programs which will reduce the current number of honors/specialization programs from seven to three. The proposals

	includes the suspension of four programs (Animal Biology, Evolutionary Biology, Microbiology, and Plant Biology) and the renaming of three programs. At the October 20, 2016 meeting, the GFC Academic Standards Committee, with delegated authority from GFC, approved by a majority vote the suspension of admission to these programs.

Engagement and Routing (Include meeting dates)

Participation: (parties who have seen the proposal and in what capacity) <For further information see the link posted on the Governance Toolkit section Student Participation Protocol>	*Those who have been **informed**:* • Proposed changes to our programs were presented at Faculty of Science – Associate Chair's Meeting (15 January 2016).
	*Those who have been **consulted**:* • Undergraduate students enrolled in Biological Sciences general and honors/special programs were consulted via online survey (554 respondents) and focal groups (March 2015). As a result of these inquiries, we also received an unsolicited 2-page letter of support from an undergraduate student. • Proposed changes were presented to members of the Department of Biological Sciences Council on April 15, 2015, December 9, 2015. Please note that one undergraduate served on Departmental Council that year. • Jennifer Sipkens, Executive Director, Alberta Society of Professional Biologists was consulted and verified that proposed changes will not affect our students' eligibility to apply for Professional Biologist status. • Proposed name changes were presented at ACAT Sciences Articulation Committee 9 May 2016. No concerns were voiced. Attendees included representatives from Ambrose University, Univ. of Lethbridge, MacEwan, Grand Prairie Regional College, Lakeland College, Mount Royale Univ., Red Deer College, Univ. of Alberta, Univ. of Calgary, Medicine Hat College, and St. Mary's University. ACAT secretariats (Clare Ard and Eric Dohei) and Caroline Nixon from Alberta Education were also in attendance. • Office of the Provost and Vice-President (Academic) reviewed all forms and provided comments July 2016. • GFC Academic Standards Committee Subcommittee on Standards – October 6, 2016
	*Those who are actively **participating**:* • Dr. Brenda Leskiw, former Associate Dean, and Dr. Gerda de Vries, Associate Dean, Faculty of Science, have been actively participating in reviewing forms and are supportive of these changes.
Approval Route (Governance) (including meeting dates)	Department of Biological Sciences Councils (note: one undergraduate student served on Department Council that year): 15 April 2015 (discussion), 9 December 2015 (discussion & vote), and 10 February 2016 (vote). Approved by the Faculty of Science (FEC delegated body) on

	September 20, 2016. Suspension of admission to Animal Biology, Evolutionary Biology, Microbiology, and Plant Biology was approved by GFC Academic Standards Committee – October 20, 2016
Final Approver	GFC Academic Planning Committee – October 26, 2016

Alignment/Compliance

Alignment with Guiding Documents	***For the Public Good*** The proposal aligns with For the Public Good in the following areas: 1. providing meaningful educational experiences, 2. increased recruitment to attract top students, and 3. increased participation in experiential learning opportunities,
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. **Post-Secondary Learning Act (PSLA).** "26(1) Subject to the authority of the board, a general faculties council is responsible for the academic affairs of the university" 2. **PSLA** Section 29(1) "A faculty council may (a) determine the programs of study for which the faculty is established [ ] (c) provide for the admission of students to the faculty [ ] (e) authorize the granting of degrees, subject to any conditions or restrictions that are imposed by the general faculties council." 3. **UAPPOL Admissions Policy: "**Admission to the University of Alberta is based on documented academic criteria established by individual Faculties and approved by GFC. This criteria may be defined in areas such as subject requirements, minimum entrance averages, and language proficiency requirements. In addition to academic requirements for admission, GFC authorizes each Faculty to establish such other reasonable criteria for admission of applicants as the Faculty may consider appropriate to its programs of study, subject to the approval of GFC (e.g. interview, audition, portfolio, etc.) The admission requirements for any Faculty will be those approved by GFC as set forth in the current edition of the University Calendar. In addition to the admission requirements, selection criteria for quota programs, where they exist, will also be published in the current edition of the University Calendar. The responsibility for admission decisions will be vested in the Faculty Admission Committees or in the Deans of the respective Faculties, as the councils of such Faculties will determine. The responsibility for admission decisions for Open Studies will be vested in the Office of the Registrar. Those responsible for admissions decisions will interpret and apply the established admission requirements and regulations, in a transparent process, in order to admit the best-qualified applicants from the total number of applicants who are eligible for admission, in accordance with Faculty enrolment targets or program quotas. The basis on which a student is admitted, and any academic provisions of admission, will not diminish or eliminate that student's rights and responsibilities, as detailed

	in the University Calendar." **4. GFC Academic Standards Committee** Terms of Reference (3. Mandate) The Office of the Provost and Vice-President (Academic) has determined that the proposed changes are routine or editorial in nature. "A. Definitions i. […] the term 'routine and/or editorial' refers to proposals which do not involve or affect other Faculties or units; do not form part of a proposal for a new program; and do not involve alteration of an existing quota or establishment of a new quota. Editorial or routine changes include any and all changes to the wording of an admissions or academic standing policy." "B. Admission and Transfer […] ii. ASC acts for GFC in approving routine and/or editorial changes to both admissions/transfer policies and academic standing regulations" 5. **GFC Academic Planning Committee** Terms of Reference. (3. Mandate) "13. Existing Undergraduate and Graduate Academic Programs: - Extension and/or Substantive Revision of Existing Programs - Revisions to or Extension of Existing Degree Designations All proposals for major changes to existing undergraduate and graduate programs (eg, new degree designation, new curriculum) shall be submitted to the Provost and Vice-President (Academic). […] The Provost and Vice-President (Academic), after consultation with relevant Offices, committees or advisers will place the proposal before APC. APC has the final authority to approve such proposals unless, in the opinion of the Vice-President (Academic), the proposal should be forwarded to GFC with an attendant recommendation from APC."

Attachments (each to be numbered 1 - <>)

1. Attachment 1 (page(s) 1 - 8) - Proposal Template: Program Name Change – Ecology
2. Attachment 2 (page(s) 1 - 8) - Proposal Template: Program Name Change – Molecular Genetics
3. Attachment 3 (page(s) 1 - 8) - Proposal Template: Program Name Change – Physiology
4. Attachment 4 (page(s) 1 - 16) – Proposed University Calendar Changes

Prepared by: Jocelyn Hall, Associate Chair, Undergraduate Studies, Department of Biological Sciences, Jocelyn.hall@ualberta.ca (with assistance from Faculty of Science and Office of the Provost and Vice-President (Academic)

Alberta Enterprise and Advanced Education

Proposal Template: Program/Specialization Name Changes

This template is for the presentation of proposals to change the title of an existing program or specialization within an existing program. Name change proposals for degree programs are subject to review by the Campus Alberta Quality Council.

Basic Information

Institution	**University of Alberta**
Current program/specialization title	**Bachelor of Science:** **(1) Specialization in Ecology** **(2) Honors in Ecology**
Credential awarded	**BSc**
Proposed Implementation Date	**July 1, 2017**

1. Proposed new name.

   Ecology, Evolution and Environmental Biology

2. Describe the institution's internal approval process for the proposed change.
   a. Proposed changes were presented to members of the Department of Biological Sciences Council on April 15, 2015, December 9, 2015.
   b. Approved by the Department of Biological Sciences Courses and Curriculum Committee on January 25, 2016.
   c. Approved by members of the Department of Biological Sciences Council on February 10, 2016.
   d. Academic Standing Committee (ASC) – Subcommittee on Standards (SOS) – October 6, 2016
   e. ASC – October 20, 2016

3. Rationale for the change (for example, changes in industry and/or post-secondary system norms for nomenclature, in technology, in curriculum, etc.). Include a survey of current nomenclature for similar programs offered across Campus Alberta and, where relevant, further afield.

   Summary of Suite of Program Changes in the Department of Biological Sciences[1]

[1] Please note that this section entitled "Summary of Suite of Program Changes in the Department of Biological" is repeated in seven documents submitted at same time: Animal Biology Suspension, Ecology Name Change, Evolutionary Biology Suspension, Microbiology Suspension, Molecular Genetics Name Change, Physiology and Developmental Biology Name Change, and Plant Biology Suspension.

The Department of Biological Sciences recently undertook a re-evaluation of all our undergraduate programs. The proposed changes to consolidate our undergraduate honors and specialization programs will enhance undergraduate student experiences and more accurately communicate the breadth, strengths and focus of the Biological Sciences programs. We are a large and diverse department that provides substantive experiential learning, however the size of our department can pose challenges for undergraduate students trying to choose our programs or discern differences amongst the breadth of disciplines. We currently offer seven honors and seven specialization programs, which mostly reflected outdated boundaries of departments that were merged into a larger Biological Sciences Department over 20 years ago. The proposed changes avoid taxonomic designations (e.g., Animal Biology, Plant Biology) and more appropriately reflect broader areas in Biological Sciences, rather than revolve content around specific organisms that may be used to study these important disciplines. The outcome of this re-evaluation is a reduction in our total number of programs, while still providing students with an exemplary education that reflects appropriate depth and breadth to meet the challenges of changing and broad career opportunities in the Biological Sciences.

The set of Program Name Changes and Program Suspension submitted reflects this departmental-wide consolidation of seven honors/specialization programs (Animal Biology, Ecology, Evolutionary Biology, Molecular Genetics, Microbiology, Physiology and Developmental Biology, and Plant Biology) to three:

(1) Ecology, Evolution and Environmental Biology (newly proposed name for Ecology);

(2) Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and

(3) Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics).

Simultaneously, we propose to suspend the following honors/specialization programs:

(1) Animal Biology

(2) Evolutionary Biology

(3) Microbiology

(4) Plant Biology

We are not proposing changes to either of our joint programs: (1) Immunology and Infection (joint with Medical Microbiology and Immunology) or (2) Paleontology (joint with Department of Earth and Atmospheric Sciences). Nor are we proposing any changes to the General Biological Sciences Major.

These changes result in programs that have broad appeal, provide greater flexibility, and accurately describe program learning outcomes and content. We are not changing the core requirements of any of the three newly named programs but rather highlighting expanded

listings of course choices to meet the learning outcomes of the programs. All programs continue to share a common set of first year course requirements.

All students in suspended programs will be given the opportunity to complete their programs. For those students who are interested in these suspended programs, all of them are fully captured in the three renamed programs. Depending on interests, there is one of the newly named programs that is a natural fit, for others, there may be more than one of the newly named programs that would work. For example, Evolutionary Biology has always been an integral part of the Ecology program. Similarly, Microbiology and Plant Biology courses were incorporated into and remain key to our Molecular, Cellular and Developmental Biology Programs (newly proposed name for Molecular Genetics Programs). Students interested in the Plant Biology and Microbiology programs will just as easily fit in the Ecology, Evolution and Environmental Biology Programs (newly proposed name for Ecology Programs) if they are more interested how these organisms evolve and interact in their environment than their molecular basis. Along these veins, all three newly named programs would fulfill goals of students interested in Animal Biology, depending on whether they wanted to focus on their physiology, their ecology and evolution, or their molecular and cellular processes.

This consolidation of programs also permits students to explore more of the large and diverse Department of Biological Sciences offerings. If they discover an unexpected interest (ie, genetics students discovering love for plant biology), they are now able to more easily take additional courses in that area without having to formally change programs. Switching programs often results in students taking an extra term or extra year to complete requirements. Similarly, students who have identified and maintain a particular fascination (e.g., animal biology) will have the direction to take classes that provide substantial depth of knowledge in that discipline. The consolidated course listings within the three renamed programs makes them less restrictive for undergraduate students, thus taking perhaps overly complicated programs to ones that provide more choice. The learning outcomes, core requirements, rigor, depth, and excellence of our programs remain the same.

Further, the newly structured programs maintain and increase the flexibility for students to participate in the Science Internship Program (SIP) and/or completion of the Research Certificate in Science (Biological Sciences). These two opportunities are aligned with the University of Alberta's new Institutional Strategic Plan "For the Public Good" that sets out to increase access to internships and support for excellence in teaching, particularly experiential learning, as objectives.

This restructuring was initiated at a Department of Biological Sciences Executive Retreat in November 2014, wherein we challenged ourselves to reexamine our undergraduate programs as though they were new rather than products of historical departments. The proposed restructuring was then discussed and/or voted on at three departmental council meetings (15 April 2015, 9 December 2015, 10 February 2016). Further, we facilitated department-wide discussion of changes via two avenues. First, we developed a departmental website that included our student survey (see below) and proposed changes to

our programs. Second, we coordinated three informal meetings to which our invested stakeholders attended and discussed changes to our newly named programs (30 November 2015, 1 December 2015, 4 December 2015).

Importantly, students also support this restructuring. In March 2015, we conducted an anonymous online survey of our Biological Sciences students. We also led three focal meetings with groups of students including students registered in our honors/specialization programs and in the general program (two on 27 March 2015, one on 30 March 2015). Of the 554 respondents to the online survey, 192 were in our honor/specialization programs (= 44% of total students enrolled in the honors/specialization programs) and 353 were in the General Biological Sciences Program (= 23% of the total number of students in the General Program). The majority of these respondents (71%) stated that our seven honors/specialization programs have limited (which allowed us to determine which programs to maintain) and strong (which allowed us to determine which programs to suspend) overlap. Similarly, students indicated that having three honors/specialization programs versus seven was acceptable (29%), slightly acceptable (26%), neutral (20%), slightly unacceptable (18%), and unacceptable (7%). In sum, 75% of the students surveyed either accepted or were neutral about the consolidation to three honors/specialization programs. A few comments regarding these changes are provided here:

- "I actually quite like the idea of three overarching areas of study. It makes decision-making easier and less overwhelming while still maintaining the aspect of choice."
- "It is confusing distinguishing between the many different programs."
- "It can be a little bit overwhelming differentiating between all of the programs."
- "There is so much overlap between all of the biological sciences programs – especially between different 'animal related'/'plant'/'ecology' related programs that even though there are quite a few different programs offered, the overlap effectively reduces the number of programs offered because they're all so similar."
- "I feel as though the programs that exist are not easily understandable."

Conversely, a small minority opinion is that the focus of seven programs provides appropriate depth for students who have a passion in one of these areas (e.g., Microbiology, Plant Biology). We greatly appreciate these concerns and will ameliorate them in three ways. First, we will effectively use our departmental website to help students choose courses that meet degree requirements and emphasize particular subdisciplines by identifying informal streams within newly named programs. Second, we will maintain our set of faculty advisors who can actively help students identify interests and understand appropriate course sequences to achieve their academic goals. Finally, we are not changing our course offerings, such that with few minor exceptions all of our current courses are still available to our students. In other words, all newly named programs accommodate these interests.

Rationale for name change of Ecology Programs

The newly proposed name Ecology, Evolution, and Environmental Biology more appropriately reflects the breadth of this area of biology, the importance of the integration of fields, the goals and outcomes of this program, and our strong reputation as Canadian leaders this field. Ecology does not fully articulate the contents of this program or field of science, which has always emphasized evolutionary biology and environmental sciences. In fact, this program was formerly named Environmental Biology, which exemplifies the challenges of settling on a narrowly defined name for this program.

Ecology, evolutionary biology and environmental biology are integrated areas of biology, as reflected in the common departmental name of Ecology and Evolutionary Biology at other institutions (e.g., University of Toronto) and in the Canadian Society for Ecology and Evolution (CSEE). For example, community and population ecology impacts biological diversity and macroevolution and vice versa. In sum, the proposed name more accurately reflects that academic preparation we provide our students for a range of career opportunities.

The description of the first two years of the program remains almost identical to the current calendar description for Ecology Program (and Evolutionary Biology program). However, the course lists (from which students choose a set number to complete to meet their program requirements) beyond this core were reorganized into broader themes in Ecology, Evolution, and Environmental Biology:

(1) Biological Diversity,

(2) Biological Processes,

(3) Ecology and Environmental Biology,

(4) Evolution and Systematics, and

(5) Scientific Methodology

These restructured lists provide more flexible options in which students will deepen and broaden their knowledge. Further, these lists highlight the incorporation of evolutionary and environmental biology that was already integral to the Ecology Program. The rigor of the program is maintained, if not enhanced, by the consolidating of course lists. In other words, we are providing undergraduate students with a program in which they may explore the many integrated facets of Ecology, Evolution, and Environmental Biology. The explicit naming of these lists makes the goals of the program clear to the students so they have a better understanding of why we are requiring them to take a subset of those classes.

The inclusion of evolution and environmental biology in the name of the Ecology program generally aligns with other institutions in Campus Alberta that offer BSc degrees in Biology, although there is wide variation in names across the province. MacEwan University offers a general program in Biology with two streams (comparable stream to our newly named program is Ecology/Environmental biology). The University of Calgary offers programs in Biological Sciences (comparable to our general program), Ecology, and Environmental Science – Biological Sciences Concentration. The following Albertan

institutions have general degrees in Biology without further formal divisions (similar to MacEwan): Concordia University, University of Lethbridge, Mount Royal University, and St. Mary's University.

This new program name more closely aligns with trends at larger Canadian institutions, although we must emphasize the breadth that Biological Sciences encompasses, providing many opportunities for division. University of British Columbia offers BSc degrees in (a) Ecology and Environmental Biology and (b) Environmental Biology. The Department of Ecology and Evolutionary Biology, University of Toronto, offers programs in (a) Ecology and Evolutionary Biology, (b) Environmental Biology, and (c) Biodiversity and Conservation. It is interesting to note that this UoT department discontinued their separate Ecology and Evolutionary Biology programs in January 2011.

4. Impacts on students (active, stop-outs, graduates) and plans to ameliorate these impacts. Include evidence of consultation with students, as well as plans to allow active students the opportunity to graduate with the established credential (should they wish), and plans to deal with graduates of the program coming forward to request an exchange of their credential for the new.

   Our online survey revealed that students that were opposed to three honors/specialization versus seven programs were mostly concerned for two reasons: (1) they did not have adequate information on what the three programs would entail thus were concerned they could not specialize in Ecology and (2) they did not want to take courses that were not of interest to them. The first year of the program remains completely unchanged and common to all our honors and specialization programs. All the courses listed in the Ecology program are listed in the Ecology, Evolution, and Environmental Biology program; they are simply re-arranged into more flexible and larger listings of courses from which students can choose courses to meet their program requirements. As such, the depth of the programs remains unchanged, but does provide more options for students who want increased breadth. In sum, there is no effect on content and quality of the programs and the core and focus remains unchanged. We have simply broadened our existing course lists to provide more options and more flexibility.

5. Provide evidence of consultation with relevant external stakeholders, for instance employers, professional/regulatory organizations or other post-secondary institutions. Identify anticipated impacts on stakeholder groups (if any) and outline plans to ameliorate impacts.

   Jennifer Sipkens, Executive Director, Alberta Society of Professional Biologists was consulted about all proposed changes to our programs, including all proposed name changes and suspensions. Because requirements for membership are based on total number

of courses, not specific program names, these changes will not affect this organization or our students' eligibility to apply for Professional Biologist status.

Proposed name changes were presented at ACAT Sciences Articulation Committee 9 May 2016. No concerns were voiced. Attendees included representatives from Ambrose University, Univ. of Lethbridge, MacEwan, Grand Prairie Regional College, Lakeland College, Mount Royale Univ., Red Deer College, Univ. of Alberta, Univ. of Calgary, Medicine Hat College, and St. Mary's University. ACAT secretariats (Clare Ard and Eric Dohei) and Caroline Nixon from Alberta Education were also in attendance.

6. Identify anticipated impacts on relevant units within the institution (e.g. Registrar's Office, Communications) and summarize the implications of the proposed change for institutional resources.

The proposed name change to the degree title for honors and specialization will not impact the number of students admitted to the Faculty of Science either by an increase or decrease. The proposed name change may increase the number of students admitted to the honors and specialization program given that this change occurs with subsequent proposed suspensions of other programs (Animal Biology, Evolutionary Biology, Microbiology and Plant Biology). We will monitor the impact of names change on demand for the degree.

The Department of Biological Sciences and the Faculty of Science will revise the records and documents under their respective control to incorporate the new degree name. These will include, but are not limited to, Departmental and Faculty forms and Departmental and Faculty websites. The University will revise records and documents under its control, including the University website and University publications. If approved, we will undertake the formal procedures to revise references to the program in the University Calendar and any University policy or procedure that references or mentions the Ecology Program. These changes will be advertised in the University Calendar for one year before implementation. The costs associated with these revisions would not result in any new expenses for the Faculty or the University as they would be absorbed in existing budgets, which take into account ongoing revision of forms, websites, and calendar changes.

The proposed degree name changes will affect the Office of the Registrar in two contexts. First, changes will need to be made to degree codes, program codes and application processes. The costs associated with these revisions would not result in any new expenses for the Faculty or the University as they would be absorbed in existing budgets. Second, students who begin the first year of the program in the year that the degree title changes will graduate with a BSc Specialization and Honors in Ecology, Evolution and Environmental Biology. Students further along in their programs will be permitted to choose which program name appears on their Degree Parchment, either honors or specialization degree in Ecology or Ecology, Evolution and Environmental Biology. Students who choose the former name of Ecology would have 5 years to complete their

programs with this name available for their Degree Parchment. The Department of Biological Sciences and the Faculty of Science will communicate with enrolled students about their choices for which name of program would be listed on degree parchment.

Alberta Enterprise and Advanced Education

Proposal Template: Program/Specialization Name Changes

This template is for the presentation of proposals to change the title of an existing program or specialization within an existing program. Name change proposals for degree programs are subject to review by the Campus Alberta Quality Council.

Basic Information

Institution	**University of Alberta**
Current program/specialization title	**Bachelor of Science:** **(1) Specialization in Molecular Genetics** **(2) Honors in Molecular Genetics**
Credential awarded	**BSc**
Proposed Implementation Date	**July 1, 2017**

1. Proposed new name.

   Molecular, Cellular and Developmental Biology

2. Describe the institution's internal approval process for the proposed change.
   a. Proposed changes were presented to members of the Department of Biological Sciences Council on April 15, 2015, December 9, 2015.
   b. Approved by the Department of Biological Sciences Courses and Curriculum Committee on January 25, 2016.
   c. Approved by members of the Department of Biological Sciences Council on February 10, 2016.
   d. Academic Standing Committee (ASC) – Subcommittee on Standards (SOS) – October 6, 2016
   e. ASC – October 20, 2016
3. Rationale for the change (for example, changes in industry and/or post-secondary system norms for nomenclature, in technology, in curriculum, etc.). Include a survey of current nomenclature for similar programs offered across Campus Alberta and, where relevant, further afield.

Summary of Suite of Program Changes in the Department of Biological Sciences[1]

The Department of Biological Sciences recently undertook a re-evaluation of all our undergraduate programs. The proposed changes to consolidate our undergraduate honors and specialization programs will enhance undergraduate student experiences and more accurately communicate the breadth, strengths and focus of the Biological Sciences programs. We are a large and diverse department that provides substantive experiential learning, however the size of our department can pose challenges for undergraduate students trying to choose our programs or discern differences amongst the breadth of disciplines. We currently offer seven honors and seven specialization programs, which mostly reflected outdated boundaries of departments that were merged into a larger Biological Sciences Department over 20 years ago. The proposed changes avoid taxonomic designations (e.g., Animal Biology, Plant Biology) and more appropriately reflect broader areas in Biological Sciences, rather than revolve content around specific organisms that may be used to study these important disciplines. The outcome of this re-evaluation is a reduction in our total number of programs, while still providing students with an exemplary education that reflects appropriate depth and breadth to meet the challenges of changing and broad career opportunities in the Biological Sciences.

The set of Program Name Changes and Program Suspension submitted reflects this departmental-wide consolidation of seven honors/specialization programs (Animal Biology, Ecology, Evolutionary Biology, Molecular Genetics, Microbiology, Physiology and Developmental Biology, and Plant Biology) to three:

(1) Ecology, Evolution and Environmental Biology (newly proposed name for Ecology);

(2) Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and

(3) Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics).

Simultaneously, we propose to suspend the following honors/specialization programs:

(1) Animal Biology

(2) Evolutionary Biology

(3) Microbiology

(4) Plant Biology

We are not proposing changes to either of our joint programs: (1) Immunology and Infection (joint with Medical Microbiology and Immunology) or (2) Paleontology (joint

[1] Please note that this section entitled "Summary of Suite of Program Changes in the Department of Biological" is repeated in seven documents submitted at same time: Animal Biology Suspension, Ecology Name Change, Evolutionary Biology Suspension, Microbiology Suspension, Molecular Genetics Name Change, Physiology and Developmental Biology Name Change, and Plant Biology Suspension.

with Department of Earth and Atmospheric Sciences). Nor are we proposing any changes to the General Biological Sciences Major.

These changes result in programs that have broad appeal, provide greater flexibility, and accurately describe program learning outcomes and content. We are not changing the core requirements of any of the three newly named programs but rather highlighting expanded listings of course choices to meet the learning outcomes of the programs. All programs continue to share a common set of first year course requirements.

All students in suspended programs will be given the opportunity to complete their programs. For those students who are interested in these suspended programs, all of them are fully captured in the three renamed programs. Depending on interests, there is one of the newly named programs that is a natural fit, for others, there may be more than one of the newly named programs that would work. For example, Evolutionary Biology has always been an integral part of the Ecology program. Similarly, Microbiology and Plant Biology courses were incorporated into and remain key to our Molecular, Cellular and Developmental Biology Programs (newly proposed name for Molecular Genetics Programs). Students interested in the Plant Biology and Microbiology programs will just as easily fit in the Ecology, Evolution and Environmental Biology Programs (newly proposed name for Ecology Programs) if they are more interested how these organisms evolve and interact in their environment than their molecular basis. Along these veins, all three newly named programs would fulfill goals of students interested in Animal Biology, depending on whether they wanted to focus on their physiology, their ecology and evolution, or their molecular and cellular processes.

This consolidation of programs also permits students to explore more of the large and diverse Department of Biological Sciences offerings. If they discover an unexpected interest (ie, genetics students discovering love for plant biology), they are now able to more easily take additional courses in that area without having to formally change programs. Switching programs often results in students taking an extra term or extra year to complete requirements. Similarly, students who have identified and maintain a particular fascination (e.g., animal biology) will have the direction to take classes that provide substantial depth of knowledge in that discipline. The consolidated course listings within the three renamed programs makes them less restrictive for undergraduate students, thus taking perhaps overly complicated programs to ones that provide more choice. The learning outcomes, core requirements, rigor, depth, and excellence of our programs remain the same.

Further, the newly structured programs maintain and increase the flexibility for students to participate in the Science Internship Program (SIP) and/or completion of the Research Certificate in Science (Biological Sciences). These two opportunities are aligned with the University of Alberta's new Institutional Strategic Plan "For the Public Good" that sets out to increase access to internships and support for excellence in teaching, particularly experiential learning, as objectives.

This restructuring was initiated at a Department of Biological Sciences Executive Retreat in November 2014, wherein we challenged ourselves to reexamine our undergraduate programs as though they were new rather than products of historical departments. The proposed restructuring was then discussed and/or voted on at three departmental council meetings (15 April 2015, 9 December 2015, 10 February 2016). Further, we facilitated department-wide discussion of changes via two avenues. First, we developed a departmental website that included our student survey (see below) and proposed changes to our programs. Second, we coordinated three informal meetings to which our invested stakeholders attended and discussed changes to our newly named programs (30 November 2015, 1 December 2015, 4 December 2015).

Importantly, students also support this restructuring. In March 2015, we conducted an anonymous online survey of our Biological Sciences students. We also led three focal meetings with groups of students including students registered in our honors/specialization programs and in the general program (two on 27 March 2015, one on 30 March 2015). Of the 554 respondents to the online survey, 192 were in our honor/specialization programs (= 44% of total students enrolled in the honors/specialization programs) and 353 were in the General Biological Sciences Program (= 23% of the total number of students in the General Program). The majority of these respondents (71%) stated that our seven honors/specialization programs have limited (which allowed us to determine which programs to maintain) and strong (which allowed us to determine which programs to suspend) overlap. Similarly, students indicated that having three honors/specialization programs versus seven was acceptable (29%), slightly acceptable (26%), neutral (20%), slightly unacceptable (18%), and unacceptable (7%). In sum, 75% of the students surveyed either accepted or were neutral about the consolidation to three honors/specialization programs. A few comments regarding these changes are provided here:

- “I actually quite like the idea of three overarching areas of study. It makes decision-making easier and less overwhelming while still maintaining the aspect of choice.”
- “It is confusing distinguishing between the many different programs.”
- “It can be a little bit overwhelming differentiating between all of the programs.”
- “There is so much overlap between all of the biological sciences programs – especially between different ‘animal related’/‘plant’/‘ecology’ related programs that even though there are quite a few different programs offered, the overlap effectively reduces the number of programs offered because they’re all so similar.”
- “I feel as though the programs that exist are not easily understandable.”

Conversely, a small minority opinion is that the focus of seven programs provides appropriate depth for students who have a passion in one of these areas (e.g., Microbiology, Plant Biology). We greatly appreciate these concerns and will ameliorate them in three ways. First, we will effectively use our departmental website to help students choose courses that meet degree requirements and emphasize particular subdisciplines by identifying informal streams within newly named programs. Second, we will maintain our

set of faculty advisors who can actively help students identify interests and understand appropriate course sequences to achieve their academic goals. Finally, we are not changing our course offerings, such that with few minor exceptions all of our current courses are still available to our students. In other words, all newly named programs accommodate these interests.

Rationale for name change of Molecular Genetics Programs

The name Molecular, Cellular and Developmental Biology accurately reflects the goals and outcomes of this program. Molecular genetics is a somewhat outdated term for a broad field investigating the underlying molecular and genetic mechanisms of biological and cellular processes. Moreover, it does not appropriately reflect the broad range of specialized disciplines that our courses and instructors offer, including molecular biology, genetics, genomics, bioinformatics, cell biology, developmental biology, microbiology, and molecular plant sciences. Thus, this broader name more accurately captures the breadth of knowledge emphasized through this degree and reflects the academic preparation we provide our students for a variety of career opportunities.

The newly named Molecular, Cellular, and Developmental Biology Programs have equivalent training in genetics, microbiology, and molecular plant sciences in the first two years of the program. This increase in breadth in the newly named Molecular, Cellular, and Developmental Biology Programs was achieved by requiring a single additional course to the second year: Fundamentals of Plant Biology (BOT 205).

Microbiology was always an integral component of these programs as were upper division plant biology courses. For years three and four, undergraduate students can continue to mix these interests or choose to follow courses that emphasize genetics, microbiology, or plants. Again we emphasize that these options were previously available in the Molecular Genetics programs, but now they have been highlighted by re-organizing the lists of courses and increasing the number of approved science options. In other words, the course lists (from which students choose a set number to complete to meet their program requirements) were rearranged to provide greater flexibility.

We re-iterate that the core of the Molecular Genetics honors and specialization programs has not been altered. Rather the restructured programs offer students different pathways to understand general molecular and cellular processes across a range of taxa. Regardless of whether students study animals, microbes, plants or a combination, they will gain an understanding of the different physical, chemical, and molecular processes that occur in and between cells. They will also learn about the significant molecular and cell-based methods used to expand our fundamental understanding of chemical, molecular, and cellular processes that take place in animals, microbes and plants.

The incorporation of cellular and developmental biology with genetics is generally mirrored with other institutions in Campus Alberta that offer BSc in Biology, although there is wide variation in names of Biology degrees in the province. MacEwan University offers a general program in Biology with two streams (comparable stream to our newly

named program is molecular/cellular biology). The University of Calgary offers programs in Cellular, Molecular and Microbial Biology. The following Albertan institutions have general degrees in Biology without further formal subdivisions (similar to MacEwan): Concordia University, University of Lethbridge, Mount Royal University, and St. Mary's University.

This new program name more closely aligns with trends in larger Canadian institutions, although we must emphasize the breadth of science that Biological Sciences encompasses, providing many opportunities for division. University of British Columbia offers BSc degrees in Cell and Developmental Biology. The Department of Cell and Systems Biology, University of Toronto, offers programs in (a) Cell and Molecular Biology (specialist and Major options), (b) Genome biology (major), and (c) Developmental biology (specialist). The University of Manitoba offers a program in Cell, Molecular, and Developmental Biology. Queens University suggests a Genetic and Molecular Biology Stream through their Department of Biology. McMaster University offers an honors program in Molecular Biology and Genetics. The University of Regina offers programs in Cellular and Molecular Biology.

4. Impacts on students (active, stop-outs, graduates) and plans to ameliorate these impacts. Include evidence of consultation with students, as well as plans to allow active students the opportunity to graduate with the established credential (should they wish), and plans to deal with graduates of the program coming forward to request an exchange of their credential for the new.

   The first year of the program is unchanged and common to all our honors and specialization programs. All the courses listed in the Molecular Genetics honors and specialization programs are listed in the newly named Molecular, Cellular and Developmental honors and specialization programs with one exception that now BOT 205 is added as a required course. All other required courses are simply re-arranged into more flexible course lists that include a broader range of options. As such, the depth of the programs remains unchanged, but does provide more options for students who want breadth across different taxa. In sum, there is no impact on content and quality of the programs and the core and focus remains unchanged. We have simply broadened our existing lists to provide more options and more flexibility.

5. Provide evidence of consultation with relevant external stakeholders, for instance employers, professional/regulatory organizations or other post-secondary institutions. Identify anticipated impacts on stakeholder groups (if any) and outline plans to ameliorate impacts.

   Jennifer Sipkens, Executive Director, Alberta Society of Professional Biologists was consulted about all proposed changes to our programs, including all proposed name changes and suspensions. Because requirements for membership are based on total number

of courses, not specific program, these changes will not affect this organization or our students' eligibility to apply for Professional Biologist status.

Proposed name changes were presented at ACAT Sciences Articulation Committee 9 May 2016. No concerns were voiced. Attendees included representatives from Ambrose University, Univ. of Lethbridge, MacEwan, Grand Prairie Regional College, Lakeland College, Mount Royale Univ., Red Deer College, Univ. of Alberta, Univ. of Calgary, Medicine Hat College, and St. Mary's University. ACAT secretariats (Clare Ard and Eric Dohei) and Caroline Nixon from Alberta Education were also in attendance.

6. Identify anticipated impacts on relevant units within the institution (e.g. Registrar's Office, Communications) and summarize the implications of the proposed change for institutional resources.

The proposed name change to the degree title for honors and specialization will not impact the number of students admitted to the Faculty of Science either by an increase or decrease. The proposed name change may increase the number of students admitted to the honors and specialization program given that change occurs with subsequent proposed suspensions of other programs (Animal Biology, Evolutionary Biology, Microbiology and Plant Biology). We will monitor the impact of names change on demand for the degree.

The Department of Biological Sciences and the Faculty of Science will revise the records and documents under their respective control to incorporate the new degree name. These will include, but are not limited to, Departmental and Faculty forms and Departmental and Faculty websites. The University will revise records and documents under its control, including the University website and University publications. If approved, we will undertake the formal procedures to revise references to the program in the University Calendar and any University policy or procedure that references or mentions the Molecular Genetics Program. These changes will be advertised in the University Calendar for one year before implementation. The costs associated with these revisions would not result in any new expenses for the Faculty or the University as they would be absorbed in existing budgets, which take into account revision of forms, websites, and ongoing calendar changes.

The proposed degree name changes will affect the Office of the Registrar in two contexts. First, changes will need to be made to degree codes, program codes and application processes. The costs associated with these revisions would not result in any new expenses for the Faculty or the University as they would be absorbed in existing budgets. Second, students who begin the first year of the program in the year that the degree title changes will graduate with a BSc Specialization and Honors in Molecular, Cellular and Developmental Biology. Students further along in their programs will be permitted to choose which program name appears on their Degree Parchment, either Molecular Genetics or Molecular, Cellular and Developmental Biology. Students who choose the former name

of Molecular Genetics would have 5 years to complete their programs with this name available for their Degree Parchment. The Department of Biological Sciences and the Faculty of Science will communicate with enrolled students about their choices for which name of program would be listed on degree parchment.

Alberta Enterprise and Advanced Education

Proposal Template: Program/Specialization Name Changes

This template is for the presentation of proposals to change the title of an existing program or specialization within an existing program. Name change proposals for degree programs are subject to review by the Campus Alberta Quality Council.

Basic Information

Institution	**University of Alberta**
Current program/specialization title	**Bachelor of Science:** **(1) Specialization in Physiology & Developmental Biology** **(2) Honors in Physiology & Developmental Biology**
Credential awarded	**BSc**
Proposed Implementation Date	**July 1, 2016**

1. Proposed new name.

   Integrative Physiology

2. Describe the institution's internal approval process for the proposed change.
   a. Proposed changes were presented to members of the Department of Biological Sciences Council on April 15, 2015, December 9, 2015.
   b. Approved by the Department of Biological Sciences Courses and Curriculum Committee on January 25, 2016.
   c. Approved by members of the Department of Biological Sciences Council on February 10, 2016.
   d. Academic Standing Committee (ASC) – Subcommittee on Standards (SOS) – October 6, 2016
   e. ASC – October 20, 2016

3. Rationale for the change (for example, changes in industry and/or post-secondary system norms for nomenclature, in technology, in curriculum, etc.). Include a survey of current nomenclature for similar programs offered across Campus Alberta and, where relevant, further afield.

Summary of Suite of Program Changes in the Department of Biological Sciences[1]

The Department of Biological Sciences recently undertook a re-evaluation of all our undergraduate programs. The proposed changes to consolidate our undergraduate honors and specialization programs will enhance undergraduate student experiences and more accurately communicate the breadth, strengths and focus of the Biological Sciences programs. We are a large and diverse department that provides substantive experiential learning, however the size of our department can pose challenges for undergraduate students trying to choose our programs or discern differences amongst the breadth of disciplines. We currently offer seven honors and seven specialization programs, which mostly reflected outdated boundaries of departments that were merged into a larger Biological Sciences Department over 20 years ago. The proposed changes avoid taxonomic designations (e.g., Animal Biology, Plant Biology) and more appropriately reflect broader areas in Biological Sciences, rather than revolve content around specific organisms that may be used to study these important disciplines. The outcome of this re-evaluation is a reduction in our total number of programs, while still providing students with an exemplary education that reflects appropriate depth and breadth to meet the challenges of changing and broad career opportunities in the Biological Sciences.

The set of Program Name Changes and Program Suspension submitted reflects this departmental-wide consolidation of seven honors/specialization programs (Animal Biology, Ecology, Evolutionary Biology, Molecular Genetics, Microbiology, Physiology and Developmental Biology, and Plant Biology) to three:

(1) Ecology, Evolution and Environmental Biology (newly proposed name for Ecology);

(2) Integrative Physiology (newly proposed name for Physiology and Developmental Biology); and

(3) Molecular, Cellular and Developmental Biology (newly proposed name for Molecular Genetics).

Simultaneously, we propose to suspend the following honors/specialization programs:

(1) Animal Biology

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(3) Microbiology

(4) Plant Biology

We are not proposing changes to either of our joint programs: (1) Immunology and Infection (joint with Medical Microbiology and Immunology) or (2) Paleontology (joint

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with Department of Earth and Atmospheric Sciences). Nor are we proposing any changes to the General Biological Sciences Major.

These changes result in programs that have broad appeal, provide greater flexibility, and accurately describe program learning outcomes and content. We are not changing the core requirements of any of the three newly named programs but rather highlighting expanded listings of course choices to meet the learning outcomes of the programs. All programs continue to share a common set of first year course requirements.

All students in suspended programs will be given the opportunity to complete their programs. For those students who are interested in these suspended programs, all of them are fully captured in the three renamed programs. Depending on interests, there is one of the newly named programs that is a natural fit, for others, there may be more than one of the newly named programs that would work. For example, Evolutionary Biology has always been an integral part of the Ecology program. Similarly, Microbiology and Plant Biology courses were incorporated into and remain key to our Molecular, Cellular and Developmental Biology Programs (newly proposed name for Molecular Genetics Programs). Students interested in the Plant Biology and Microbiology programs will just as easily fit in the Ecology, Evolution and Environmental Biology Programs (newly proposed name for Ecology Programs) if they are more interested how these organisms evolve and interact in their environment than their molecular basis. Along these veins, all three newly named programs would fulfill goals of students interested in Animal Biology, depending on whether they wanted to focus on their physiology, their ecology and evolution, or their molecular and cellular processes.

This consolidation of programs also permits students to explore more of the large and diverse Department of Biological Sciences offerings. If they discover an unexpected interest (ie, genetics students discovering love for plant biology), they are now able to more easily take additional courses in that area without having to formally change programs. Switching programs often results in students taking an extra term or extra year to complete requirements. Similarly, students who have identified and maintain a particular fascination (e.g., animal biology) will have the direction to take classes that provide substantial depth of knowledge in that discipline. The consolidated course listings within the three renamed programs makes them less restrictive for undergraduate students, thus taking perhaps overly complicated programs to ones that provide more choice. The learning outcomes, core requirements, rigor, depth, and excellence of our programs remain the same.

Further, the newly structured programs maintain and increase the flexibility for students to participate in the Science Internship Program (SIP) and/or completion of the Research Certificate in Science (Biological Sciences). These two opportunities are aligned with the University of Alberta's new Institutional Strategic Plan "For the Public Good" that sets out to increase access to internships and support for excellence in teaching, particularly experiential learning, as objectives.

This restructuring was initiated at a Department of Biological Sciences Executive Retreat in November 2014, wherein we challenged ourselves to reexamine our undergraduate programs as though they were new rather than products of historical departments. The proposed restructuring was then discussed and/or voted on at three departmental council meetings (15 April 2015, 9 December 2015, 10 February 2016). Further, we facilitated department-wide discussion of changes via two avenues. First, we developed a departmental website that included our student survey (see below) and proposed changes to our programs. Second, we coordinated three informal meetings to which our invested stakeholders attended and discussed changes to our newly named programs (30 November 2015, 1 December 2015, 4 December 2015).

Importantly, students also support this restructuring. In March 2015, we conducted an anonymous online survey of our Biological Sciences students. We also led three focal meetings with groups of students including students registered in our honors/specialization programs and in the general program (two on 27 March 2015, one on 30 March 2015). Of the 554 respondents to the online survey, 192 were in our honor/specialization programs (= 44% of total students enrolled in the honors/specialization programs) and 353 were in the General Biological Sciences Program (= 23% of the total number of students in the General Program). The majority of these respondents (71%) stated that our seven honors/specialization programs have limited (which allowed us to determine which programs to maintain) and strong (which allowed us to determine which programs to suspend) overlap. Similarly, students indicated that having three honors/specialization programs versus seven was acceptable (29%), slightly acceptable (26%), neutral (20%), slightly unacceptable (18%), and unacceptable (7%). In sum, 75% of the students surveyed either accepted or were neutral about the consolidation to three honors/specialization programs. A few comments regarding these changes are provided here:

- “I actually quite like the idea of three overarching areas of study. It makes decision-making easier and less overwhelming while still maintaining the aspect of choice.”
- “It is confusing distinguishing between the many different programs.”
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- “There is so much overlap between all of the biological sciences programs – especially between different ‘animal related’/‘plant’/‘ecology’ related programs that even though there are quite a few different programs offered, the overlap effectively reduces the number of programs offered because they’re all so similar.”
- “I feel as though the programs that exist are not easily understandable.”

Conversely, a small minority opinion is that the focus of seven programs provides appropriate depth for students who have a passion in one of these areas (e.g., Microbiology, Plant Biology). We greatly appreciate these concerns and will ameliorate them in three ways. First, we will effectively use our departmental website to help students choose courses that meet degree requirements and emphasize particular subdisciplines by identifying informal streams within newly named programs. Second, we will maintain our

set of faculty advisors who can actively help students identify interests and understand appropriate course sequences to achieve their academic goals. Finally, we are not changing our course offerings, such that with few minor exceptions all of our current courses are still available to our students. In other words, all newly named programs accommodate these interests.

Rationale for name change of Physiology and Developmental Biology Programs

Integrative Physiology is a more accurate name than Physiology and Developmental Biology for our honors and specialization programs. The honors and specialization programs in Physiology and Developmental Biology provide a foundation of physiological principles and their application to the functioning of wide range of organisms. However, it is the emphasis on the range of taxa that is particularly important to capture in the proposed name, wherein students take courses not only focusing on many groups of vertebrates, but also insects, microbes, and plants.

The proposed name further differentiates our programs from the honors program in Physiology, offered by the Department of Physiology in the Faculty of Medicine and Dentistry through the Faculty of Science, which is focused on human physiology with the goal of students potentially pursuing health-related careers. In sum, Integrative Physiology is a more accurate term for our programs that incorporate knowledge across physiological levels of organization (molecular, cellular, organ, and organism), span many taxonomic groups, and examine how internal and external environmental factors affect physiology.

The first year of this program remains unchanged and the second through fourth years were slightly restructured to reflect the breadth described above and, more importantly, provide students more flexible course options to pursue in the latter years of their degree. The second year course lists (from which students choose a set number to complete to meet their program requirements) were slightly modified to encourage broader interest in invertebrates, microbiology, and plants. For students who are most interested in vertebrate physiology, the requirements for year 2 are unchanged. In addition, courses were added to lists for years 3 and 4 to provide students with more options to pursue potential interests in plants and insects, while still maintaining our established focus on vertebrate physiology. We re-iterate that these options were previously available in programs, but now they have been highlighted by re-organizing the lists of courses and increasing the number of approved science options.

Similar to our currently named program, there are few to no comparators across Alberta for our newly proposed name of Integrative Physiology, highlighting the value and breadth of programs we offer through our department. There is substantial variation in names of Biology degrees in the province. MacEwan University offers a general program in Biology with two streams, neither of which emphasizes physiology. The University of Calgary offers diverse programs, none of which align with a physiological emphasis. The following Albertan institutions have general degrees in Biology without further formal divisions

(similar to MacEwan): Concordia University, University of Lethbridge, Mount Royal University, and St. Mary's University.

This new program name more closely aligns with trends at larger Canadian institutions, although we must emphasize the breadth of science that Biological Sciences encompasses, providing many opportunities for division and lack of direct comparators. The University of British Columbia offers BScs in Cellular, Anatomical and Physiological Sciences (emphasis is in human physiology, though, and not a direct comparison). The Department of Cell and Systems Biology, University of Toronto, offers programs in (a) Animal Physiology and (b) Physiology. The University of Manitoba offers programs in (a) Environmental and Integrative Physiology and (b) Integrative Biology. Neither Queens University nor the University of Regina lists specific physiological streams through their respective Departments of Biology. McMaster University offers an honors program with Physiology Specialization.

4. Impacts on students (active, stop-outs, graduates) and plans to ameliorate these impacts. Include evidence of consultation with students, as well as plans to allow active students the opportunity to graduate with the established credential (should they wish), and plans to deal with graduates of the program coming forward to request an exchange of their credential for the new.

   The first year of the program remains completely unchanged and common to all our honors and specialization programs. All the courses listed in the Physiology and Developmental Biology honors and specialization programs are listed in the Integrative Physiology honors and specialization programs. The course lists have been expanded to provide additional approved courses. As such, the depth of the programs remains unchanged, but does provide more options for students who want additional breadth. In sum, there is no impact on content and quality of the programs and the core and focus remains unchanged. We simply broadened our existing lists to provide more options and more flexibility.

   First, we will effectively use our departmental website to help students choose courses that meet degree requirements and emphasize particular subdisciplines by identifying informal streams. Second, we will maintain our set of faculty advisors who can actively help students identify interests and understand appropriate courses sequences to achieve their academic goals. Finally, we are not changing our course offerings, such that with few minor exceptions all of our current courses are still available to our students.

5. Provide evidence of consultation with relevant external stakeholders, for instance employers, professional/regulatory organizations or other post-secondary institutions. Identify anticipated impacts on stakeholder groups (if any) and outline plans to ameliorate impacts.

Jennifer Sipkens, Executive Director, Alberta Society of Professional Biologists was consulted about all proposed changes to our programs, including all proposed name changes and suspensions. Because requirements for membership are based on total number of courses, not specific program, these changes will not affect this organization or our students' eligibility to apply for Professional Biologist status.

Proposed name changes were presented at ACAT Sciences Articulation Committee 9 May 2016. No concerns were voiced. Attendees included representatives from Ambrose University, Univ. of Lethbridge, MacEwan, Grand Prairie Regional College, Lakeland College, Mount Royale Univ., Red Deer College, Univ. of Alberta, Univ. of Calgary, Medicine Hat College, and St. Mary's University. ACAT secretariats (Clare Ard and Eric Dohei) and Caroline Nixon from Alberta Education were also in attendance.

6. Identify anticipated impacts on relevant units within the institution (e.g. Registrar's Office, Communications) and summarize the implications of the proposed change for institutional resources.

The proposed name change to the degree title for honors and specialization will not impact the number of students admitted to the Faculty of Science either by an increase or decrease. The proposed name change may increase the number of students admitted to the honors and specialization program given that change occurs with subsequent proposed suspensions of other programs (animal biology, evolutionary biology, microbiology, and plant biology). We will monitor the impact of names change on demand for the degree.

The Department of Biological Sciences and the Faculty of Science will revise the records and documents under their respective control to incorporate the new degree name. These will include, but are not limited to, Departmental and Faculty forms and Departmental and Faculty websites. The University will revise records and documents under its control, including the University website and University publications. If approved, we will undertake the formal procedures to revise references to the program in the University Calendar and any University policy or procedure that references or mentions the Physiology and Developmental Biology Programs. These changes will be advertised in the University Calendar for one year before implementation. The costs associated with these revisions would not result in any new expenses for the Faculty or the University as they would be absorbed in existing budgets, which take into account revision of forms, websites, and ongoing calendar changes.

The proposed degree name changes will affect the Office of the Registrar in two contexts. First, changes will need to be made to degree codes, program codes and application processes. The costs associated with these revisions would not result in any new expenses for the Faculty or the University as they would be absorbed in existing budgets. Second, students who begin the first year of the program in the year that the degree title changes will graduate with a BSc Specialization and Honors Integrative Physiology. Students

further along in their programs will be permitted to choose which program name appears on their Degree Parchment, either Physiology and Developmental Biology or Integrative Physiology. Students who choose the former name of Physiology and Developmental Biology would have 5 years to complete their programs with this name available for their Degree Parchment. The Department of Biological Sciences and the Faculty of Science will communicate with enrolled students about their choices for which name of program would be listed on degree parchment.

Biological Sciences
Program Changes

CURRENT	PROPOSE
Faculty Overview The Faculty of Science offers degrees in Applied Mathematics, Atmospheric Sciences, Astrophysics, Biochemistry, Biological Sciences (~~Animal Biology, Ecology, Evolutionary Biology, Microbiology, Molecular Genetics, Physiology and Developmental Biology, Plant Biology~~), Chemistry, Cell Biology, Computing Science, Computing Science with Business Minor, Environmental Earth Sciences, Geology, Geophysics, Immunology and Infection, Mathematical Physics, Mathematics, Mathematics (Computational Science) Mathematics and Economics, Mathematics and Finance, Neuroscience, Paleontology, Pharmacology, Physics, Physiology, Psychology, and Statistics. A Business Minor, an Arts Minor and an Agricultural, Life and Environmental Sciences minor are available in the BSc General program. A Science Internship Program (SIP) is available to Faculty of Science BSc students to enhance their studies and provide relevant work experience. Students must complete an 8-, 12- or 16- month work experience term at the end of their third year to receive SIP designation on their degree parchment. For more details, please see Science Internship Program. ~~- See more at: http://calendar.ualberta.ca/content.php?catoid=6&navoid=837#faculty-overview~~	**Faculty Overview** The Faculty of Science offers degrees in Applied Mathematics, Atmospheric Sciences, Astrophysics, Biochemistry, Biological Sciences (Ecology, Evolution and Environmental Biology; Integrative Physiology; and Molecular, Cellular and Developmental Biology), Chemistry, Cell Biology, Computing Science, Computing Science with Business Minor, Environmental Earth Sciences, Geology, Geophysics, Immunology and Infection, Mathematical Physics, Mathematics, Mathematics (Computational Science) Mathematics and Economics, Mathematics and Finance, Neuroscience, Paleontology, Pharmacology, Physics, Physiology, Psychology, and Statistics. A Business Minor, an Arts Minor and an Agricultural, Life and Environmental Sciences minor are available in the BSc General program. A Science Internship Program (SIP) is available to Faculty of Science BSc students to enhance their studies and provide relevant work experience. Students must complete an 8-, 12- or 16- month work experience term at the end of their third year to receive SIP designation on their degree parchment. For more details, please see Science Internship Program. - See more at: https://www.ualberta.ca/science/student-services/science-internship-program

CURRENT (2016-2017)	PROPOSED
Course Sequence in Biological Sciences • ~~Animal Biology~~ • ~~Bioinformatics~~ • ~~Ecology~~ • ~~Evolutionary Biology~~ • ~~Microbiology~~	Course Sequence in Biological Sciences • Ecology, Evolution and Environmental Biology • Integrative Physiology • Molecular, Cellular and Developmental Biology

• ~~Molecular Genetics~~ • ~~Physiology and Developmental Biology~~ • ~~Plant Biology~~	

CURRENT	PROPOSED
Honors in Biological Sciences [Science] All students in Honors and Specialization programs in Biological Science take a common core of four BIOL courses in the first and second years. Thereafter, they follow the course sequence of one of the areas of concentration in either Honors or Specialization in Biological Sciences identified in Science Chart 2 Course Sequence in Biological Sciences. At the time of application, students indicate their chosen area of concentration on the application; if admitted, they follow the appropriate course sequence. The title of the area of concentration will appear on their degree. Additional course requirements for Honors students include BIOL 499 and program specific courses. BIOL 499, a directed research project, must be conducted on a topic appropriate to the student's area of concentration. BIOL 499 is a recommended option for Specialization students. Streams have been developed ~~within several programs~~ in Biological Sciences. These are lists of courses that provide guidance to students wishing to focus further on specific areas of Biology. Students in a program are not required to declare or follow a stream, and stream designations do not appear on transcripts. ~~On the Course Sequence chart, available streams are noted under Years 3 and 4.~~ Streams are described in full on the Department of Biological Sciences website. Students should consult with advisors in choosing and following streams within their programs. Students may receive block Transfer in the Biological Sciences at the University of Calgary or the University of Lethbridge if the appropriate courses are completed. Interested students may contact the Department of Biological Sciences for details.	**Honors in Biological Sciences [Science]** All students in Honors and Specialization programs in Biological Science take a common core of four BIOL courses in the first and second years. Thereafter, they follow the course sequence of one of the areas of concentration in either Honors or Specialization in Biological Sciences identified in Science Chart 2 Course Sequence in Biological Sciences. At the time of application, students indicate their chosen area of concentration on the application; if admitted, they follow the appropriate course sequence. The title of the area of concentration will appear on their degree. Additional course requirements for Honors students include BIOL 499 and program specific courses. BIOL 499, a directed research project, must be conducted on a topic appropriate to the student's area of concentration. BIOL 499 is a recommended option for Specialization students. Streams have been developed in Biological Sciences. These are lists of courses that provide guidance to students wishing to focus further on specific areas of Biology. Students in a program are not required to declare or follow a stream, and stream designations do not appear on transcripts. Streams are described in full on the Department of Biological Sciences website. Students should consult with advisors in choosing and following streams within their programs. Students may receive block Transfer in the Biological Sciences at the University of Calgary or the University of Lethbridge if the appropriate courses are completed. Interested students may contact the Department of Biological Sciences for details.

Honors in Biological Sciences	**Honors in Biological Sciences**

Admission to the BSc Honors in Biological Sciences program see Admissions Chart 7 , Faculty of Science. Continuation in the Honors in Biological Sciences program requires successful completion of at least ★24 with a minimum 3.0 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 3.0 GPA on the last ★60 credited to the degree. Effective September 2016, there will be no further admissions to BSc Honors or BSc Specialization in Bioinformatics. Students who entered one of these programs prior to September 2016 must complete all program requirements by April 30, 2020. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Bioinformatics will be granted at Spring Convocation 2020.	Admission to the BSc Honors in Biological Sciences program see Admissions Chart 7 , Faculty of Science. Continuation in the Honors in Biological Sciences program requires successful completion of at least ★24 with a minimum 3.0 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 3.0 GPA on the last ★60 credited to the degree. Effective September 2016, there will be no further admissions to BSc Honors or BSc Specialization in Bioinformatics. Students who entered one of these programs prior to September 2016 must complete all program requirements by April 30, 2020. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Bioinformatics will be granted at Spring Convocation 2020. Effective September 2017, there will be no further admissions to BSc Honors or BSc Specialization in Animal Biology, Evolutionary Biology, Microbiology and Plant Biology. Students who entered one of these programs prior to September 2017 must complete all program requirements by April 30, 2024. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Animal Biology, Evolutionary Biology, Microbiology and Plant Biology will be granted at Spring Convocation 20XX.

CURRENT **PROPOSED**

Specialization in Biological Sciences All students in Honors and Specialization programs in Biological Science take a common core of four BIOL courses in the first and second years. Thereafter, they follow the course sequence of one of the areas of concentration in either Honors or Specialization in Biological Sciences identified in Science Chart 2 Course Sequence in Biological	Specialization in Biological Sciences All students in Honors and Specialization programs in Biological Science take a common core of four BIOL courses in the first and second years. Thereafter, they follow the course sequence of one of the areas of concentration in either Honors or Specialization in Biological Sciences identified in Science Chart 2 Course Sequence in Biological

Sciences. Students must declare an area of concentration and follow the appropriate course sequence. The title of the area of concentration will appear on their degree. Additional course requirements for Honors students include BIOL 499 and program specific courses. BIOL 499, a directed research project, must be conducted on a topic appropriate to the student's area of concentration. BIOL 499 is a recommended option for Specialization students. Streams have been developed ~~within several programs~~ in Biological Sciences. These are lists of courses that provide guidance to students wishing to focus further on specific areas of Biology. Students in a program are not required to declare or follow a stream, and stream designations do not appear on transcripts. ~~On the Course Sequence chart, available streams are noted under Years 3 and 4.~~ Streams are described in full on the Department of Biological Sciences website. Students should consult with advisors in choosing and following streams within their programs. Students may receive block Transfer in the Biological Sciences at the University of Calgary or the University of Lethbridge if the appropriate courses are completed. Interested students may contact the Department of Biological Sciences for details. - See more at: http://calendar.ualberta.ca/preview_program.php?catoid=6&poid=2951&hl=%22specialization+in+biological+sciences%22&returnto=search#sthash.Mfd1bbi7.dpuf **Specialization in Biological Sciences [Science]** Admission to the BSc Specialization in Biological Sciences program see Admissions Chart 7 , Faculty of Science. Continuation in the Specialization in Biological Sciences program requires successful completion of at least ★24 with a minimum 2.3 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 2.3 GPA on all courses credited to the degree.	Sciences. Students must declare an area of concentration and follow the appropriate course sequence. The title of the area of concentration will appear on their degree. Additional course requirements for Honors students include BIOL 499 and program specific courses. BIOL 499, a directed research project, must be conducted on a topic appropriate to the student's area of concentration. BIOL 499 is a recommended option for Specialization students. Streams have been developed in Biological Sciences. These are lists of courses that provide guidance to students wishing to focus further on specific areas of Biology. Students in a program are not required to declare or follow a stream, and stream designations do not appear on transcripts. Streams are described in full on the Department of Biological Sciences website. Students should consult with advisors in choosing and following streams within their programs. Students may receive block Transfer in the Biological Sciences at the University of Calgary or the University of Lethbridge if the appropriate courses are completed. Interested students may contact the Department of Biological Sciences for details. - See more at: http://calendar.ualberta.ca/preview_program.php?catoid=6&poid=2951&hl=%22specialization+in+biological+sciences%22&returnto=search#sthash.Mfd1bbi7.dpuf **Specialization in Biological Sciences [Science]** Admission to the BSc Specialization in Biological Sciences program see Admissions Chart 7 , Faculty of Science. Continuation in the Specialization in Biological Sciences program requires successful completion of at least ★24 with a minimum 2.3 GPA in the previous Fall/Winter. In addition, graduation requires a minimum 2.3 GPA on all courses credited to the degree.

	Effective September 2017, there will be no further admissions to BSc Honors or BSc Specialization in Animal Biology, Evolutionary Biology, Microbiology and Plant Biology. Students who entered one of these programs prior to September 2017 must complete all program requirements by April 30, 2024. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Animal Biology, Evolutionary Biology, Microbiology and Plant Biology will be granted at Spring Convocation 20XX.

Admissions Chart 7
CURRENT

Program	Honors Required Averaged	Specialization Required Average
Note: Effective September 2016, there will be no further admissions to BSc Honors or BSc Specialization in Bioinformatics.	**High School** - minimum 80% **Transfer** - a minimum 3.0 GPA on ★24 in each preceding Fall/Winter. ~~(**Note:** A minimum grade of B- is required in MICRB 265 and MICRB 311 , if taken, in order to transfer to the Microbiology Honors program).~~ For admission requirements, see BSc (Honors)	**High School** - minimum 75% **Transfer** - a minimum 2.3 GPA on ★24 in each preceding Fall/Winter. For admission requirements, see ~~Bachelor of Science~~ (Specialization)

Admissions Chart 7
PROPOSED

Program	Honors Required Averaged	Specialization Required Average
Biological Sciences **Note:** Effective September 2016, there will be no further admissions to BSc Honors or BSc Specialization in Bioinformatics. **Note:** Effective September 2017, there will be no further admissions to BSc Honors or BSc	**High School** - minimum 80% **Transfer** - a minimum 3.0 GPA on ★24 in each preceding Fall/Winter. For admission requirements, see BSc (Honors) see http://calendar.ualberta.ca/preview_program.php?catoid=6&poid=2598&hl=%22honors+in+specialization%22&returnto=search	**High School** - minimum 75% **Transfer** - a minimum 2.3 GPA on ★24 in each preceding Fall/Winter. For admission requirements, see BSc (Specialization - See more http://calendar.ualberta.ca/preview_program.php?catoid=6&poid=2951&hl=%22specialization+in+biological+sciences%22&returnto=search#sthash.Mfd1bbi7.dpuf

Specialization in Animal Biology, Evolutionary Biology, Microbiology and Plant Biology		

Science Chart 2: Course Sequence in Biological Science

Animal Biology

Effective September 2017, there will be no further admissions to BSc Honors or BSc Specialization in Animal Biology. Students who entered one of these programs prior to September 2017 must complete all program requirements by April 30, 2024. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Animal Biology will be granted at Spring Convocation 20XX.

Evolutionary Biology

Effective September 2017, there will be no further admissions to BSc Honors or BSc Specialization in Evolutionary Biology. Students who entered one of these programs prior to September 2017 must complete all program requirements by April 30, 2024. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Evolutionary Biology will be granted at Spring Convocation 20XX.

Microbiology

Effective September 2017, there will be no further admissions to BSc Honors or BSc Specialization in Microbiology. Students who entered one of these programs prior to September 2017 must complete all program requirements by April 30, 2024. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Microbiology will be granted at Spring Convocation 20XX.

Plant Biology

Effective September 2017, there will be no further admissions to BSc Honors or BSc Specialization in Plant Biology. Students who entered one of these programs prior to September 2017 must complete all program requirements by April 30, 2024. Refer to the Calendar in effect at the time you were admitted or readmitted for the regulations governing the degree program requirements. The last BSc Honors or BSc Specialization in Plant Biology will be granted at Spring Convocation 20XX.

CURRENT (2017-2018)	PROPOSED
~~**Ecology**~~	**Ecology, Evolution and Environmental Biology (Honors)**
BIOL 107, 108 CHEM 101, 164 or 261	BIOL 107, 108 CHEM 101, 164 or 261

MATH 114 (~~or 113~~ or 117 or 144~~)~~ or 125 STAT 151 *6 Arts options (junior level ENGL or junior WRS recommended) *6 Science options (EAS 100 recommended)	MATH 114 (or 117 or 134 or 144 or 125) STAT 151 *6 Arts options (junior level ENGL or junior WRS recommended) *6 Science options (EAS 100 recommended)
Year 2	**Year 2**
~~BIOCH 200~~ BIOL 207, 208 BIOL 221 ~~BOT 205~~ ~~MICRB 265~~ ~~ZOOL 224 or 325 or PALEO 201~~ ~~ZOOL 250 or ENT 220~~ *6 Arts options	BIOL 207, 208, 221 *3 from List A (Biological Diversity) *3 from Lists A or B (Biological Diversity or Processes) *9 Science or approved options *6 Arts options
Years 3 and 4	**Years 3 and 4**
~~BIOL 330~~ ~~*12 from BIOL 331, 332, 340; BOT 332; ZOOL 371~~ ~~*3 from BIOL 380; BOT 303, 340; ENT 321; GENET 270, 305; IMIN 200; MICRB 311; ZOOL 241, 242, 303~~ ~~*6 from BIOL 322, BOT 314, 321, 322, 330; ENT 427; ZOOL 351, 352, 405, 406, 407, 408~~ ~~*9 from BIOL 333, 361, 364, 366, 367, 381, 384, 398, 399, 430, 433, 434, 464, 468, 471, 490, 498, 499; MICRB 491; ZOOL 340, 354, 370, 472~~ ~~*6 Arts options~~ ~~*18 approved options~~ ~~*3 from BIOL 365, 432; MA SC 4XX, ZOOL 434~~ ~~Available streams include: conservation/wildlife biology, freshwater biology, and plant ecology.~~ ~~Notes~~ ~~(1) MA SC courses on this list are offered at Bamfield Marine Sciences Centre.~~ ~~(2) Honors students are required to take BIOL 430 and 499 and reduce approved options by *9.~~ ~~(3) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 164; EAS 100; MATH 114; *3 Science options and *6 Approved options.~~	BIOL 499 *3 from List A (Biological Diversity; at 300-level or higher) *3 from List B (Biological Processes) *3 from List C (Ecology & Environmental Biology) *3 from List D (Evolution & Systematics) *15 from Lists C or D (at least *9 at 400 level) *6 from List E (Scientific Methodology) *6 Arts options *15 Science or approved options **List A (Biological Diversity)** BIOL 322, 361, 495 (if appropriate topic); BOT 205, 314, 321, 322, 330, 411; ENT 220, 222; MA SC 402, (if appropriate topic), 410, 412; MICRB 265; PALEO 201; ZOOL 224, 250, 351, 352, 405, 406, 407, 408 **List B (Biological Processes)** BIOL 495 (if appropriate topic); BOT 303, 308, 340; GENET 270, 305, 364; IMIN 200, 324; MA SC 415; MICRB 311; ZOOL 241, 242, 303, 340, 452 **List C (Ecology & Environmental Biology)** BIOL 331, 332, 333, 340, 341, 361, 364, 366, 367, 381, 384, 433, 434, 440, 468, 471, 495 (if appropriate topic); BOT 330, 332; MA SC 401, 402, 425, 430, 437; MICRB 320, 423, 491; ZOOL 371, 472

	List D (Evolution & Systematics) BIOL 322, 335, 380, 421, 495 (if appropriate topic); ENT 327; MA SC 402; PALEO 414, 418, 419; ZOOL 325, 350 **List E (Scientific Methodology)** BIOIN 301, 401; BIOL 330, 335, 365, 392, 421, 430, 432; BOT 322, 332; ENT 327; IMIN 410; MA SC 402; MICRB 315, 392; PALEO 400; ZOOL 350, 351 **Notes** (1) May not use same course to fill more than one program requirement. (2) Up to *12 from approved options may be taken from other faculties. (3) BIOL 298, 398, 399, 498, 499 and INTD 400 may count towards Science or approved options. (4) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 102, 261; MATH 114, *3 Science options and *6 approved options.

CURRENT (2017-2018)	PROPOSED
~~**Physiology and Developmental Biology**~~	**Integrative Physiology (Honors)**
Year 1	**Year 1**
BIOL 107, 108 CHEM 101, 164 or 261 MATH 114 (~~or 113~~ or 117 or 144~~)~~ or 125 STAT 151 *6 Science options *6 Arts options (junior level ENGL or junior WRS recommended)	BIOL 107, 108 CHEM 101, 164 or 261 MATH 114 (or 117 or 134 or 144 or 125) STAT 151 *6 Science options *6 Arts options (junior level ENGL or junior WRS recommended)
Year 2	**Year 2**
BIOCH 200 BIOL 201 or CELL 201 BIOL 207, 208 ZOOL 241, 242, ~~250~~ *3 Arts option ~~*6 approved options~~ ~~Note: students intending to take BIOCH 310, 320 or 330 are required to take CHEM 263~~	BIOCH 200 (see note 1) BIOL 201 or CELL 201 BIOL 207, 208 (see note 1) ZOOL 241, 242 *3 from ENT 220; ZOOL 250, 325 *3 Arts options *3 Junior Physiology options (BOT 205, GENET 270, IMIN 200, MICRB 265)

	*3 Science options **Notes:** (1) Students intending to take BIOCH 3XX as an option in years 3 & 4 will need to take CHEM 102 and CHEM 263 in years 1 and 2.
Years 3 and 4	**Years 3 and 4**
~~ZOOL 303, 325, 344~~ ~~*3 from ZOOL 402, 441, 442, 450 or BIOL 445~~ ~~*3 from BIOCH 310, 320, 330 or CELL 300~~ ~~*9 from ZOOL 340, 342, 343, 352 or BIOL 341 or 391~~ ~~*9 Arts options~~ ~~*12 approved options~~ ~~*15 from list below~~ ~~Recommended options include, but are not restricted to additional courses from above and the following: BIOCH 310, 320, 330; BIOL 341, 391, 398, 399, 490, 495, 498, 499, 545; BOT 303, 340, 403, 445; CELL 300, 301, 402, 415; ENT 321, 378; GENET 270, 301, 302, 304, 375, 390, 412, 418, 420; IMIN 200, 371, 372, 401, 452; INT D 400; MA SC 403, 415; MICRB 265, 311; NEURO 443, 472; PHYSL 372, 401, 402, 403, 404, 545; PMCOL 371; ZOOL 340, 342, 343, 352, 370, 402, 441, 442, 450, 452.~~ ~~**Notes**~~ ~~(1) MA SC courses on this list are offered at Bamfield Marine Sciences Centre.~~ ~~(2) Honors students are required to take BIOL 499 and reduce approved options by *6.~~ ~~(3) The above program is distinct from the Honors Physiology Program offered by the Department of Physiology, Faculty of Medicine and Dentistry. Applicants should contact the current Advisor in the Department of Biological Sciences to ensure that this is the Program for which they wish to register.~~ ~~(4) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 261; MATH 114, *6 Science options and *6 Approved options.~~	BIOL 499 ZOOL 303 ZOOL 344 *3 from BIOCH 310, 320, 330, CELL 300 *12 from BIOL 341, 391; BOT 340; IMIN 371; ZOOL 340, 342, 343, 352 *3 from List A. *15 from required advanced option List B *9 Arts options *6 Science or approved options List A: Discussion Courses BIOL 445; BOT 445, 464; ZOOL 402, 441, 442, 452 List B: Required Advanced Option (Advanced Physiology courses). Additional courses not listed may be approved. BIOCH 310, 320, 330; BIOL 341, 391, 398, 399, 409, 445, 490, 495 (if appropriate topic), 498, 499; BOT 303, 340, 380, 445, 464; CELL 300, 301, 402, 415; ENT 321; GENET 301, 302, 304, 375, 390, 412, 418, 420; IMIN 371, 372, 401, 405; INT D 400; MA SC 415; MICRB 311; NEURO 410, 443, 472, 496; PMCOL 371; PHYSL 372, 400, 401, 402, 403, 404, 405, 444; ZOOL 340, 342, 343, 352, 370, 402, 441, 442, 452 **Notes** (1) *6 at 400 level is required and can be met by *3 from List A and *3 from List B or approved Science options. (2) May not use same course to fill more than one program requirement. (3) Up to *12 from approved options may be taken from other faculties. (4) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 102,

	261; MATH 114, *3 Science options and *6 approved options.

CURRENT (2017-2018)	PROPOSED
~~**Molecular Genetics**~~	**Molecular, Cellular and Developmental Biology (Honors)**
Year 1	**Year 1**
BIOL 107, 108, ~~207~~ CHEM 101, 102, 164 or 261 MATH 114 (~~or 113~~ or 117 or 144~~)~~ or 125 STAT 151 *6 Arts options (junior level ENGL or junior WRS recommended) Note: ~~Although BIOL 207 is recommended in Year 1, alternatively, BIOL 201 (or CELL 201) may be taken in Year 1. BIOL 207 must be completed before Winter term of Year 2~~.	BIOL 107, 108 CHEM 101, 102, 164 or 261 MATH 114 (or 117 or 134 or 144 or 125) STAT 151 *3 Science option *6 Arts options (junior level ENGL or WRS recommended) **Note** BIOL 207 is recommended in Year 1 by deferring the *3 Science option until Year 2.
Year 2	**Year 2**
BIOCH 200 BIOL 201 or CELL 201 BIOL 208 CHEM 263 GENET 270 MICRB 265 *6 Arts options ~~*6 Science options~~ ~~Note: GENET 270 must be taken during Year 2 to permit completion of the program in four years.~~	BIOCH 200 BIOL 201, 207, 208 BOT 205 CHEM 263 GENET 270 MICRB 265 *6 Arts options
Years 3 and 4	**Years 3 and 4**
~~One of BIOCH 310, 320, 330 or CELL 300 (BIOCH 320 strongly recommended)~~ ~~Students required to take at least~~ ~~*6 from GENET 301, 302, 304 and *6 from BIOL 380, GENET 305, 390.~~ ~~*9 from List A~~ ~~*3 from List B~~ ~~*15 from List C~~ ~~*6 in Arts options~~ ~~*12 in approved options~~ ~~List A: GENET 364, 408, 412, 415, 418 and either GENET 422 or 424.~~ ~~List B: BIOL 391; GENET 375, 420.~~ ~~List C: Including, but not restricted to the following: ANAT 400; BIOCH 310, 320, 330, 401, 410, 420,~~	*3 from BIOL 391 or GENET 375 BIOL 499 GENET 390 *12 from List A *3 from BOT 445, 464; GENET 422, 424; MICRB 392, 410, 423, 491 *6 from List B (*6 at 400 level) *6 from Arts options *21 from Science or approved options (see List C for suggestions.) List A BIOIN 301; BIOL 321, 380; BOT 303, 308, 340, 380, 382; GENET 301, 302, 304, 305, 364; MICRB 311, 315, 316, 320, 343

~~430, 450; BIOL 221, 315, 391, 398, 399, 490, 495, 498, 499; BOT 303, 382, 445, 464; CELL 300, 301, 402, 415, 445; CHEM 371, 373; ENT 321; GENET 301, 302, 304, 305, 364, 375, 390, 408, 412, 418, 420, 422, 424; IMIN 200, 324, 371, 401; INT D 400; MICRB 311, 316, 320, 343, 345, 392, 415; ONCOL 320, 425; PHYSL 210, 401; ZOOL 241, 242, 303, 340, 342, 402, 441, 442.~~ **~~Notes~~** ~~(1) Honors students are required to take BIOL 499 and reduce approved options by *6.~~ ~~(2) Credit in SCI 100 will be considered equivalent to BIOL 107, 108;~~ ~~CHEM 101, 102, 261; MATH 114, *3 Science options and *6 Approved options.~~	List B BIOIN 301, 401; BOT 303, 308, 340, 445, 464; GENET 364, 408, 412, 418, 420, 422, 424; MICRB 345, 392, 410, 423, 491. List C Including but not restricted to the following: Any courses in Lists A and B plus: ANAT 400; BIOCH 310, 320, 330, 401, 410, 420, 430, 441, 450; 455, 460; BIOL 315, 322, 330, 333, 335, 340, 341, 364, 367, 391, 398, 399, 430, 433, 470, 490, 495 (if appropriate topic), 498, 499; BOT 314, 321, 330, CELL 300, 301, 402, 415, 445; CHEM 211, 213, 303, 361, 363, 371, 373; CMPUT 101, 174, 175; ENT 321, 378; IMIN 200, 324, 371, 401; INT D 400; MMI 351; ONCOL 320, 425; PHYS 124, 126; PHYSL 210, 401; PL SC 335, 355, 380, 385, 465; REN R 421, 468; ZOOL 241, 242, 303, 340, 342, 343, 352, 370, 402, 441, 442, 450, 452 **Notes** (1) May not use same course to fill more than one program requirement. (2) Up to *12 from approved options may be taken from other faculties. (3) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 102, 261; MATH 114, *3 Science options and *6 approved options.

CURRENT (2017-2018)	PROPOSED
~~Ecology~~	**Ecology, Evolution and Environmental Biology (Specialization)**
Year 1	**Year 1**
BIOL 107, 108 CHEM 101, 164 or 261 MATH 114 (~~or 113~~ or 117 or 134/144~~)~~ or 125 STAT 151 *6 Arts options (junior level ENGL or junior WRS recommended) *6 Science options (EAS 100 recommended)	BIOL 107, 108 CHEM 101, 164 or 261 MATH 114 (or 117 or 134 or 144 or 125) STAT 151 *6 Arts options (junior level ENGL or junior WRS recommended) *6 Science options (EAS 100 recommended)
Year 2	**Year 2**

~~BIOCH 200~~ BIOL 207, 208 BIOL 221 ~~BOT 205~~ ~~MICRB 265~~ ~~ZOOL 224 or 325 or PALEO 201~~ ~~ZOOL 250 or ENT 220~~ *6 Arts options	BIOL 207, 208, 221 *3 from List A (Biological Diversity) *3 from Lists A or B (Biological Diversity or Processes) *9 Science or approved options *6 Arts options
Years 3 and 4	**Years 3 and 4**
~~BIOL 330~~ ~~*12 from BIOL 331, 332, 340; BOT 332; ZOOL 371~~ ~~*3 from BIOL 380; BOT 303, 340; ENT 321; GENET 270, 305; IMIN 200; MICRB 311; ZOOL 241, 242, 303~~ ~~*6 from BIOL 322, BOT 314, 321, 322, 330; ENT 427; ZOOL 351, 352, 405, 406, 407, 408~~ ~~*9 from BIOL 333, 361, 364, 366, 367, 381, 384, 398, 399, 430, 433, 434, 464, 468, 471, 490, 498, 499; MICRB 491; ZOOL 340, 354, 370, 472~~ ~~*6 Arts options~~ ~~*18 approved options~~ ~~*3 from BIOL 365, 432; MA SC 4XX, ZOOL 434~~ ~~Available streams include: conservation/wildlife biology, freshwater biology, and plant ecology.~~ ~~Notes~~ ~~(1) MA SC courses on this list are offered at Bamfield Marine Sciences Centre.~~ ~~(2) Honors students are required to take BIOL 430 and 499 and reduce approved options by *9.~~ ~~(3) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 164; EAS 100; MATH 114; *3 Science options and *6 Approved options.~~	*3 from List A (Biological Diversity; at 300-level or higher *3 from List B (Biological Processes) *3 from List C (Ecology & Environmental Biology) *3 from List D (Evolution & Systematics) *12 from Lists C or D (at least *6 at 400 level) *3 from List E (Scientific Methodology) *6 Arts options *27 Science or approved options **List A (Biological Diversity)** BIOL 322, 361, 495 (if appropriate topic); BOT 205, 314, 321, 322, 330, 411; ENT 220, 222; MA SC 402, (if appropriate topic), 410, 412; MICRB 265; PALEO 201; ZOOL 224, 250, 351, 352. 405, 406, 407, 408 **List B (Biological Processes)** BIOL 495 (if appropriate topic); BOT 303, 308, 340; GENET 270, 305, 364; IMIN 200, 324; MA SC 415; MICRB 311; ZOOL 241, 242, 303, 340, 452 **List C (Ecology & Environmental Biology)** BIOL 331, 332, 333, 340, 341, 361, 364, 366, 367, 381, 384, 433, 434, 440, 468, 471, 495 (if appropriate topic); BOT 330, 332; MA SC 401, 402, 425, 430, 437; MICRB 320, 423, 491; ZOOL 371, 472 **List D (Evolution & Systematics)** BIOL 322, 335, 380, 421, 495 (if appropriate topic); ENT 327; MA SC 402; PALEO 414, 418, 419; ZOOL 325, 350 **List E (Scientific Methodology)** BIOIN 301, 401; BIOL 330, 335, 365, 392, 421, 430, 432; BOT 322, 332; ENT 327; IMIN 410; MA SC 402; MICRB 315, 392; PALEO 400; ZOOL

	350, 351 **Notes** (1) May not use same course to fill more than one program requirement. (2) Up to *12 from approved options may be taken from other faculties. (3) BIOL 298, 398, 399, 498, 499 and INTD 400 may count towards Science or approved options. (4) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 102, 261; MATH 114, *3 Science options and *6 approved options.

CURRENT (2017-2018)	PROPOSED
~~**Physiology and Developmental Biology**~~	**Integrative Physiology (Specialization)**
Year 1	**Year 1**
BIOL 107, 108 CHEM 101, 164 or 261 MATH 114 (~~or 113~~ or 117 or 144~~)~~ or 125 STAT 151 *6 Science options *6 Arts options (junior level ENGL or junior WRS recommended)	BIOL 107, 108 CHEM 101, 164 or 261 MATH 114 (or 117 or 134 or 144 or 125) STAT 151 *6 Science options *6 Arts options (junior level ENGL or junior WRS recommended)
Year 2	**Year 2**
BIOCH 200 BIOL 201 or CELL 201 BIOL 207, 208 ZOOL 241, 242, ~~250~~ *3 Arts option ~~*6 approved options~~ ~~Note: students intending to take BIOCH 310, 320 or 330 are required to take CHEM 263~~	BIOCH 200 (see note 1) BIOL 201 or CELL 201 BIOL 207, 208 (see note 1) ZOOL 241, 242 *3 from ENT 220; ZOOL 250, 325 *3 Arts options *3 Junior Physiology Options (BOT 205, GENET 270, IMIN 200, MICRB 265) *3 Science options (see note 2) **Notes:** (1) Students intending to take BIOCH 3XX as an option in years 3 & 4 will need to take CHEM 102 and CHEM 263 in years 1 and 2.
Years 3 and 4	**Years 3 and 4**

~~ZOOL 303, 325, 344~~ ~~*3 from ZOOL 402, 441, 442, 450 or BIOL 445~~ ~~*3 from BIOCH 310, 320, 330 or CELL 300~~ ~~*9 from ZOOL 340, 342, 343, 352 or BIOL 341 or 391~~ ~~*9 Arts options~~ ~~*12 approved options~~ ~~*15 from list below~~ ~~Recommended options include, but are not restricted to additional courses from above and the following: BIOCH 310, 320, 330; BIOL 341, 391, 398, 399, 490, 495, 498, 499, 545; BOT 303, 340, 403, 445; CELL 300, 301, 402, 415; ENT 321, 378; GENET 270, 301, 302, 304, 375, 390, 412, 418, 420; IMIN 200, 371, 372, 401, 452; INT D 400; MA SC 403, 415; MICRB 265, 311; NEURO 443, 472; PHYSL 372, 401, 402, 403, 404, 545; PMCOL 371; ZOOL 340, 342, 343, 352, 370, 402, 441, 442, 450, 452.~~ ~~**Notes**~~ ~~(1) MA SC courses on this list are offered at Bamfield Marine Sciences Centre.~~ ~~(2) Honors students are required to take BIOL 499 and reduce approved options by *6.~~ ~~(3) The above program is distinct from the Honors Physiology Program offered by the Department of Physiology, Faculty of Medicine and Dentistry. Applicants should contact the current Advisor in the Department of Biological Sciences to ensure that this is the Program for which they wish to register.~~ ~~(4) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 261; MATH 114, *6 Science options and *6 Approved options.~~	*3 from BIOCH 310, 320, 330, CELL 300 ZOOL 303 ZOOL 344 *12 from BIOL 341, 391; BOT 340; IMIN 371; ZOOL 340, 342, 343, 352 *3 from List A. *15 from Required Advanced Option List B *9 Arts options *12 Science options List A: Discussion Courses BIOL 445; BOT 445, 464; ZOOL 402, 441, 442, 452 List B: Required Advanced Option (Advanced Physiology courses). Additional courses not listed may be approved. BIOCH 310, 320, 330; BIOL 341, 391, 398, 399, 409, 445, 490, 495 (if appropriate topic), 498, 499; BOT 303, 340, 380, 445, 464; CELL 300, 301, 402, 415; ENT 321; GENET 301, 302, 304, 375, 390, 412, 418, 420; IMIN 371, 372, 401, 405; INT D 400; MA SC 415; MICRB 311; NEURO 410, 443, 472, 496; PMCOL 371; PHYSL 372, 400, 401, 402, 403, 404, 405, 444; ZOOL 340, 342, 343, 352, 370, 402, 441, 442, 452 **Notes:** (1) *6 at 400 level is required and can be met by *3 from List A and *3 from List B or approved Science options. (2) May not use same course to fill more than one program requirement. (3) Up to *12 from approved options may be taken from other faculties. (4) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 102, 261; MATH 114, *3 Science options and *6 approved options.

CURRENT (2017-2018)	PROPOSED
~~**Molecular Genetics**~~	**Molecular, Cellular and Developmental Biology (Specialization)**
Year 1	**Year 1**
BIOL 107, 108, ~~207~~	BIOL 107, 108

CHEM 101, 102, 164 or 261 MATH 114 (~~or 113~~ or 117 or 144~~)~~ or 125 STAT 151 *6 Arts options (junior level ENGL or junior WRS recommended) **Note**: ~~Although BIOL 207 is recommended in Year 1, alternatively, BIOL 201 (or CELL 201) may be taken in Year 1. BIOL 207 must be completed before Winter term of Year 2~~.	CHEM 101, 102, 164 or 261 MATH 114 (or 117 or 134 or 144 or 125) STAT 151 *3 Science option *6 Arts options (junior level ENGL or WRS recommended) **Note** BIOL 207 is recommended in Year 1 by deferring the *3 Science option until Year 2.
Year 2	**Year 2**
BIOCH 200 BIOL 201 or CELL 201 BIOL 208 CHEM 263 GENET 270 MICRB 265 *6 Arts options ~~*6 Science options~~ ~~Note: GENET 270 must be taken during Year 2 to permit completion of the program in four years.~~	BIOCH 200 BIOL 201, 207, 208 BOT 205 CHEM 263 GENET 270 MICRB 265 *6 Arts options
Years 3 and 4	**Years 3 and 4**
~~One of BIOCH 310, 320, 330 or CELL 300 (BIOCH 320 strongly recommended)~~ ~~Students required to take at least~~ ~~*6 from GENET 301, 302, 304 and *6 from BIOL 380, GENET 305, 390.~~ ~~*9 from List A~~ ~~*3 from List B~~ ~~*15 from List C~~ ~~*6 in Arts options~~ ~~*12 in approved options~~ ~~List A: GENET 364, 408, 412, 415, 418 and either GENET 422 or 424.~~ ~~List B: BIOL 391; GENET 375, 420.~~ ~~List C: Including, but not restricted to the following: ANAT 400; BIOCH 310, 320, 330, 401, 410, 420, 430, 450; BIOL 221, 315, 391, 398, 399, 490, 495, 498, 499; BOT 303, 382, 445, 464; CELL 300, 301, 402, 415, 445; CHEM 371, 373; ENT 321; GENET 301, 302, 304, 305, 364, 375, 390, 408, 412, 418, 420, 422, 424; IMIN 200, 324, 371, 401; INT D 400; MICRB 311, 316, 320, 343, 345, 392, 415; ONCOL 320, 425; PHYSL 210, 401; ZOOL 241, 242, 303, 340, 342, 402, 441, 442.~~	*3 from BIOL 391 or GENET 375 GENET 390 *12 from List A *3 from BOT 445, 464; GENET 422, 424; MICRB 392, 410, 423, 491 *6 from List B (at least *3 at 400 level) *6 from Arts options *9 from approved options (suggested options in List C) *18 Science options (suggested options in List C) List A BIOIN 301; BIOL 321, 380; BOT 303, 308, 340, 380, 382; GENET 301, 302, 304, 305, 364; MICRB 311, 315, 316, 320, 343 List B BIOIN 301, 401; BOT 303, 308, 340, 445, 464; GENET 364, 408, 412, 418, 420, 422, 424; MICRB 345, 392, 410, 423, 491 List C Including but not restricted to the following: Any courses in Lists A and B plus:

~~**Notes**~~ ~~(1) Honors students are required to take BIOL 499 and reduce approved options by *6.~~ ~~(2) Credit in SCI 100 will be considered equivalent to BIOL 107, 108;~~ ~~CHEM 101, 102, 261; MATH 114, *3 Science options and *6 Approved options.~~	ANAT 400; BIOCH 310, 320, 330, 401, 410, 420, 430, 441, 450; 455, 460; BIOL 315, 322, 330, 333, 335, 340, 341, 364, 367, 391, 398, 399, 430, 433, 470, 490, 495 (if appropriate topic), 498, 499; BOT 314, 321, 330, CELL 300, 301, 402, 415, 445; CHEM 211, 213, 303, 361, 363, 371, 373; CMPUT 101, 174, 175; ENT 321, 378; IMIN 200, 324, 371, 401; INT D 400; MMI 351; ONCOL 320, 425; PHYS 124, 126; PHYSL 210, 401; PL SC 335, 355, 380, 385, 465; REN R 421, 468; ZOOL 241, 242, 303, 340, 342, 343, 352, 370, 402, 441, 442, 450, 452 **Notes**: (1) May not use same course to fill more than one program requirement. (2) Up to *12 from approved options may be taken from other faculties. (3) Credit in SCI 100 will be considered equivalent to BIOL 107, 108; CHEM 101, 102, 261; MATH 114, *3 Science options and *6 approved options.