

DEPARTMENT of PHYSIOLOGY

GRADUATE STUDENT POLICY

2026/2027

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List of Abbreviations:

ESI – Ethics & Scientific Integrity
FGPS – Faculty of Graduate and Postdoctoral Studies
FoMD – Faculty of Medicine and Dentistry
FoMD GPC – Graduate Programs Committee
GET – Graduate Ethics Training
GPA – Grade Point Average
GSA – Graduate Student Association
GSC – Graduate Studies Committee
IDP - Individual Development Plan
MSc – Master of Science
PhD – Doctor of Philosophy
PGSA – Physiology Graduate Student Association
PD – Professional Development
SUB – Student's Union Building
UTP – University Teaching Procedures

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**For all details on the Physiology Graduate Program
<https://www.ualberta.ca/physiology/graduateprogram/index.html>**

1. GENERAL INFORMATION

In addition to this manual, students and supervisors are also referred to the Faculty of Graduate and Postdoctoral Studies [Graduate Program Manual](#).

The Department of Physiology offers graduate programs leading to the Master of Science and Doctor of Philosophy degrees. The Department is well equipped with facilities for many fields of physiological research, including:

- Cardiovascular Physiology
- Cellular and Molecular Physiology
- Cellular and Systems Neurophysiology
- Endocrinology
- Fetal/Neonatal Physiology
- Membrane Physiology
- Renal Physiology
- Respiratory Physiology

The deadline dates by which a completed student application file (except the People's Republic of China [PRC] and Nigeria applications; see below) must be received in FGPS are:

July 1	For September admissions
November 1	For January admissions
March 1	For May admissions
May 1	For July admissions

Note: The online application and all supporting documentation must be completed at least two weeks prior to the above deadlines.

For more specific information please check the FGPS website.

FGPS has established, as a guideline, a four-month lead-time by which completed People's Republic of China and Nigeria applications with a departmental recommendation must be received in the FGPS office. This is to allow time for application for a Student Visa:

May 1	For September admissions
September 1	For January admissions
January 1	For May admissions
March 1	For July admissions

Information and requests for application forms for admission may be obtained from the Department or students may apply online. Students may also write to the Chair of the Department or the Director of Graduate Studies, Department of Physiology in regard to their special interests and related matters.

The Degree of MSc

Required courses depend on the area of specialization and the undergraduate background of the student; however, a minimum of one didactic course (3 units of graduate level course work) is required. The minimum period of residence is two four-month terms of full-time attendance at the University of Alberta. The time required to complete the MSc will vary with the individual candidate; however, a minimum of 18 months is normally required and in our department the average time to complete an MSc is two years.

The Degree of PhD

Required courses depend on the area of specialization and the undergraduate/graduate background of the student; however, a minimum of one didactic course and one reading course (or lab course) is generally required (6 units total). PhD students entering the program with an MSc in a relevant discipline may only be required to complete 3 units of graduate level coursework. A candidacy examination in the student's area of research must also be passed within 36 months (3 years) of starting the program. The minimum period of residence is two academic years of full-time attendance at the University of Alberta. The time required to complete the PhD will vary according to the previous training of the applicant and the nature of the research undertaken; however, a minimum of three years is normally required and in our department the average time to complete a PhD is five years.

2. GRADUATE STUDENT RECRUITMENT

Graduate students are recruited from Alberta, across Canada and the U.S. and all over the world. Every fall the Faculty of Graduate and Postdoctoral Studies hosts a Grad School and Professional Expo. Information on this fair can be found at the FGPS website. Graduate student opportunities are also listed on the websites of individual faculty members.

3. HOW TO APPLY

The [Department of Physiology](#) website contains program outlines, admission requirements and specific application procedures.

All submitted applications require a non-refundable \$100 CAD administrative fee. Visa or MasterCard are required for online applications. Note: The fee may be waived if you are applying from one of the countries waived from the application fee.

You can initiate an online application, complete a portion and return at a later date. However, you will be prompted to enter your credit card information when you submit the application.

Note: International applicants should apply for a Study Permit after submitting their application for admission.

Note: prior to submitting an application, applicants should familiarize themselves with the [Physiology Department](#) and identify research areas that might be of interest and contact the professors whose work is of interest. This is important, because acceptance into the program requires the commitment of a departmental faculty member who will serve as supervisor.

4. ENTRANCE REQUIREMENTS

MSc Program:

Candidates who wish to apply for the MSc program must have a four-year BSc or MD degree with a cumulative GPA of at least 3.0 (on a 4 point scale) in the last two years or last 60 credits of undergraduate (or graduate) work at the University of Alberta, or an equivalent qualification from a recognized institution.

PhD Program:

i. Candidates who wish to apply for the PhD program must have an MSc or MD degree with a cumulative GPA of at least 3.0 (on a 4 point scale) in the last two years or last 60 credits of graduate work at the University of Alberta or an equivalent qualification from a recognized institution in Canada. (In exceptional cases, applicants with a GPA that falls between 2.7 and 3.0, may be considered).

Candidates with a BSc wishing to complete a PhD without first completing an MSc or MD degree will normally be admitted to the MSc program and then transfer to the PhD program after 12 months following presentation of their PhD proposal and upon recommendation from their thesis advisory committee. Transfer to the PhD program will also require successful completion of at least one graduate course, and all Ethics and Academic Citizenship and the iDP portion of the Professional Development requirements (See *Section 15 - Graduate Student Responsibilities*) prior to submission of the Transfer request to the Department.

International candidates, except those applying from the USA, are not accepted directly to a PhD program (except under exceptional circumstances). These candidates may transfer to a PhD program after 12 months in the MSc program, following presentation of their PhD proposal and upon recommendation from their thesis advisory committee, and upon completion of at least one graduate course and all Ethics and Academic Citizenship and the IDP portion of the Professional Development requirements (See *Section 15 - Graduate Student Responsibilities*) prior to submission of the Transfer request to the Department.

ii. Since research in Physiology generally requires a broad background from several fields, completion of courses in the following areas is highly recommended for all applicants:

- Physiology 210 or 212 and 214, or an equivalent full-year course in Human Physiology;
- Biochemistry 200 and one of 310, 320 or 330 or an equivalent full-year course in Biochemistry;
- one-year basic courses in Physics and Calculus are recommended;
- a basic course in Statistics is recommended.
- Courses in other related areas, such as anatomy, cell biology, pharmacology, neuroscience or histology, are desirable, but not required.

iii. For applicants with international qualifications, the Department of Physiology requires proficiency in English prior to acceptance which can be demonstrated via:

- verified completion of an undergraduate or graduate degree with an English curriculum;
- TOEFL score of at least 600 (paper-based) or 100 with at least 22 per section (Internet-based) IELTS score of 7.5 or higher with at least 6.5 on each band

iv. The Department of Physiology requires that applicants identify a supervisor who has committed to supervise the student for the duration of their program.

v. All applicants are also required to submit a CV and statement of interest. The Department of Physiology requires three letters of reference (with at least two from an academic referee).

vi. Previous research experience is helpful, but not a requirement for admission.

Students who meet the criteria listed above will be reviewed by the GSC. The GSC will recommend acceptance or rejection to FGPS.

If one of these four criteria is **not** met, the student will not be recommended for acceptance to the program. Thus, a student who has good grades will not be accepted if there is no potential supervisor. Similarly, a student with an interested supervisor but insufficient grades will not be accepted.

5. FACULTY OF GRADUATE AND POST-DOCTORAL STUDIES (FGPS)

The Faculty of Graduate and Post-doctoral Studies (FGPS) is responsible for the general administration of graduate programs, from the admission and registration of graduate students through to convocation, including the responsibility for:

- inputting of student admissions online;
- the setting of minimum entrance requirements and minimum academic standing requirements, and for ensuring that these are met;
- submitting to the Council of the Faculty of Graduate Studies and Research for approval, changes affecting policy, general and degree regulations, and so on;
- approving special considerations to students' programs;
- adjudicating scholarships and some other academic awards;

- providing help and advice in the resolution of disputes and problems.

6. DEPARTMENT OF PHYSIOLOGY, FACULTY OF MEDICINE AND DENTISTRY

The Department of Physiology is responsible for:

- overseeing the supervision of all graduate students enrolled in its program;
- serving as the chief liaison with the Faculty of Graduate and Postdoctoral Studies;
- ensuring that the student receives proper supervision;
- appointing supervisors, supervisory committees, and examining committees;
- ensuring that the regulations and requirements of the Faculty of Graduate and Postdoctoral Studies are met;
- recommending and keeping the Faculty of Graduate and Postdoctoral Studies informed of any developments or changes relating to a student's program, including the appointment of the supervisor and supervisory committee members and changes to that membership (for on-line processing);
- recommending and keeping the Faculty of Graduate and Postdoctoral Studies informed of course and program changes, scheduling of examination dates, and so on.

The Department of Physiology General Office will be responsible for the clerical duties associated with the graduate program. Files are maintained for all current graduate students as well as files on prospective students with materials submitted for application purposes.

7. GRADUATE STUDIES COMMITTEE (GSC)

The conduct of the graduate program in the Department of Physiology will be the responsibility of a Graduate Studies Committee consisting of:

- at least three faculty members from the Department of Physiology; one of whom will be selected as Director of Graduate Studies
- the departmental Chair, *ex officio*; and
- a graduate student representative, elected by the students
- departmental student services

A new member of the committee will be nominated at least every other year, so that no member of the department will serve on the committee for more than six years. The committee will meet approximately 4 times per year.

The student member will participate in all matters except those relating to individual students' academic progress or where competitive decisions are to be made regarding funding or awards to students.

A Director of Graduate Studies will be selected from the members of the committee. The coordinator or the department Chair will sign forms for graduate students and serve as the departmental representative on the Graduate Faculty Council.

Current Members:

- Dr. Elaine Leslie, Director Graduate Studies
- Dr. Simon Gosgnach, Departmental Chair
- Dr. Emmanuelle Cordat
- Dr. Maria Ioannou
- Dr. Jesse Jackson
- Dr. Martin Munz
- Dr. Meghan Riddell
- Dr. Jessica Yue
- Kim Sawada, Student Services

8. RECOMMENDED PROGRAM SEQUENCE

MSc program:

- 1st year:
 - course work
 - formation of supervisory committee
 - meeting with supervisory committee to discuss progress and research aims
 - initial laboratory research
- 2nd year:
 - thesis research
 - final thesis examination

PhD program (transfer from MSc):

- 1st year:
 - same as for first year of MSc
- 2nd year:
 - course work (if required)
 - thesis research
 - PhD Proposal (within the first 24 months)
- 3rd year:
 - thesis research
 - candidacy examination (within the first 36 months)
- 4th and 5th year:
 - thesis research
 - final thesis examination

PhD program (direct entry):

- 1st year:
 - same as for first year of MSc
- 2nd year:
 - course work (if required)
 - thesis research
 - PhD proposal (within the first 18 months)
- 3rd year:
 - thesis research
 - candidacy examination (within the first 30 months)
- 4th and 5th year:
 - thesis research
 - final thesis examination

9. PROGRAM REQUIREMENTS

The Degree of MSc (Physiology)

The MSc program in Physiology requires the completion of at least ★3 in course work. It also requires the preparation and defense of a thesis on an approved topic.

Required Coursework

- One ★3 didactic graduate-level course from the [Physiology course listings](#), or approved equivalent.
- Additional courses may be required, depending on the nature of the research and the background of the student.

- Course(s) will be selected based on recommendations of the supervisor and the supervisory committee, in consultation with the student.
- Graduate course work is selected to fill gaps in a student's knowledge, and should contribute to a student's development as an independent scientist.

Thesis

- Registration in 900-level THES. Students are required to prepare and defend a thesis on a topic approved by their supervisor and supervisory committee.

Physiology Graduate Student Seminar Series

All graduate students are required to attend 70% (minimum) of events in this Seminar Series, which runs twice/month (fall and winter semesters), and keep a record of the seminars attended. Oral presentation of research and lecture material is an essential skill that is key to success in research, career placement, teaching etc. This seminar series offers an excellent opportunity to develop and practice these skills and become an active participant in the research culture of your department/faculty and University. All MSc candidates will also deliver a public seminar describing their thesis research on the day of their defense. Attendance of Physiology graduate students at these events is also mandatory. Students who do not meet these requirements will be considered “not in good standing” and will not be eligible for departmental stipend/travel support.

Residence Requirements

The MSc program has a requirement of one academic year residency. MSc students must be registered full-time on campus for a minimum of one academic year (where an academic year is defined as the eight month period from September through April).

Length of Program

The time required to complete the MSc will vary with the individual candidate; the minimum duration is 18 months and the maximum is four years.

Professional Development Requirement. See below

Ethics Requirement. See below

The Degree of PhD (Physiology)

The PhD program requires the completion of ★6 credits (two single-term courses) in course work. It also requires the preparation and defense of a thesis on an approved topic.

Required Coursework

- One ★ 3 didactic graduate-level course from the [Physiology course listings](#), or approved equivalent
- One ★ 3 reading or laboratory rotation course from the [Physiology course listings](#), or approved equivalent.
- Additional courses may be required, depending on the nature of the research and the background of the student.
- Course(s) will be selected based on recommendations of the supervisor and the supervisory committee, in consultation with the student.

Thesis

- Registration in 900-level THES. Students are required to prepare and defend a thesis on a topic approved by their supervisor and supervisory committee.

Physiology Graduate Student Seminar Series

All graduate students are required to attend 70% (minimum) of events in this Seminar Series, which runs twice/month (fall and winter semesters), and keep a record of the seminars attended. Oral presentation of

research and lecture material is an essential skill that is key to success in research, career placement, teaching etc. This seminar series offers an excellent opportunity to develop and practice these skills and become an active participant in the research culture of your department/faculty and University. All PhD candidates will also deliver a public seminar describing their thesis research on the day of their defense. Attendance of Physiology graduate students at these events is also mandatory. Students who do not meet these requirements will be considered “not in good standing” and will not be eligible for departmental stipend/travel support.

PhD Thesis Proposal (described in more detail in Section 20)

All PhD students, whether entering via the MSc program or via direct entry, must submit a PhD Thesis Proposal, in the form of a research grant, to their thesis advisory committee. For students transferring to the PhD program from a MSc this must occur in the first 24 months. Students who have directly entered the PhD program must complete within the first 18 months.

Candidacy Exam (described in more detail in Section 21).

Candidacy exam proposal can be written on the same topic as the candidate’s PhD proposal, but candidates are expected to considerably expand the proposal beyond their PhD proposal and demonstrate the ability to design and plan experiments.

The candidacy exam includes the Candidacy exam document, oral presentation and an oral examination.

Residence Requirements

The PhD program has a requirement of two academic years in residence. PhD students must be registered full-time on campus for a minimum of two academic years (where an academic year is defined as the eight month period from September through April).

Length of Program

The time required to complete the PhD will vary according to the previous training of the student and the nature of the research undertaken; the minimum duration is three years and the maximum is six years.

Graduate-level courses offered in the Physiology Graduate Program:

For a current listing of courses, consult the University of Alberta Calendar
<https://calendar.ualberta.ca/content.php?catoid=34&navoid=10323>

10. FEES

How are fees calculated?

<https://uofa.ualberta.ca/graduate-studies/current-students/tuition-and-fees>

International Students

<https://www.ualberta.ca/graduate-studies/current-students/tuition-and-fees/how-fees-are-calculated>

Spring and Summer Fees

<https://www.ualberta.ca/graduate-studies/current-students/tuition-and-fees/noninstructional-fees>

11. FINANCIAL SUPPORT FOR GRADUATE STUDENTS

It is essential for graduate students to apply at the earliest opportunity for external financial support from agencies such as:

Alberta Innovations Health Solutions (AIHS)
Canadian Institutes of Health Research (CIHR)
Natural Sciences and Engineering Research Council (NSERC)
University of Alberta General Awards

75th Anniversary and Graduate Student Recruitment Awards (offered by the Faculty of Medicine and Dentistry)
Women & Children's Health Research Institute (WCHRI)
other University-administered awards (offered by the FGPS)

For further information refer to the [Awards & Funding page](#) of the FGPS website:

Supervisors **may** also support, from research grants, those students who have not received external funding or who have not yet had a chance to apply for external funding. Supervisors **may** also contribute to the differential tuition fees for foreign students. University funds for graduate assistantships, **when available**, will be used as equitably as possible to supplement other departmental funds to support those few students who may be lacking support from other sources. These discretionary funds will be allocated on a case-by-case basis by the departmental Chair, in consultation with the Graduate Studies Committee. Since the budget for graduate assistantships is decided on an annual basis, **the department cannot guarantee students that these funds will be available for the duration of their program**. Such funds will only be awarded for a maximum of two years for students registered for an MSc degree and for a maximum of four years for students undertaking a PhD degree.

Conference Travel Support.

The FGPS and GSA offer graduate travel awards to financially support students who travel to present their research.

Spring/Summer Registration after September 2011

All full time students are required to be registered for Fall, Winter and Spring/Summer sessions with fee assessments attached to the three registration periods. Spring and Summer registration is processed by FGPS automatically. (It is the responsibility of students to register for fall and winter term courses and thesis).

12. GRADUATE STUDENT ASSOCIATION (GSA)

[website](#)

GSA Health and Dental Plan

A growing number of important health-care services aren't covered by provincial health care. To help students pay for the health services they need, a student health and dental plan has been put in place by the Graduate Student Association at the U of A. The Student Health and Dental Office is located in 0-28 Lower level of the Students' Union Building (SUB).

Who's covered?

Graduate students registered full-time in the Fall Term at the University of Alberta, including on-campus, off-campus and international students, are automatically covered by the GSA Health & Dental Plan. If you are a new student starting in January, May or July you can enroll yourself, your spouse and/or dependents as long as registration occurs prior to the add/drop deadline for the term.

A full-time student is registered for at least nine (9) or more graduate credits in Fall and Winter terms. Students beginning their program as of the fall of 2011 must also be enrolled in Thesis 906 for both the Spring and Summer terms.

Your Plan gives you the option to enroll your family (spouse and/or dependents) by completing the online enrolment process and paying an additional fee, over and above your individual fee as a Plan member. For more information please see the GSA [website](#).

All enrolments must be completed during the Change-of-Coverage Period, usually the first three weeks of September or January and prior to the add/drop deadline (for full-year coverage).

Change-of-Coverage Period

The Change-of-Coverage period is the period at the beginning of the term when you can either opt out or enroll your spouse and/or dependents in the GSA Health & Dental Plan. If you start school in September, the Change-of-Coverage Period is the first three weeks of September and prior to the add/drop deadline.

For more information or special circumstances (e.g., students who are on leave and who are interested in being covered by the Plan) contact [StudyWell](#) by phone at +1-587-600-8872 or +1-855-845-9690 (toll free) or by email uofa@studywellbenefits.ca.

Who's Not Covered?

- Part-time students and new full-time or part-time Winter, Spring or Summer Terms students are not automatically covered, but may enroll during the Change-of-Coverage Period. Only GSA members can enroll in the Plan. Refer to the Change-of-Coverage section for details on enrolment.
- Students who are not members of the GSA are not covered and can't enroll. This includes undergraduate students, auditing students, and visiting exchange students.

Plan Fee

The fee for 12 months of coverage (September 1st - August 31st) is included in your student fees:

How do I make a Claim?

For further details and information on how to submit claims, visit the [link](#)

Opt Outs

If you're already covered by an equivalent health and/or dental plan (such as a parent or spouse's employee benefit plan, or a plan provided by your band council or through Health Canada), you can opt out and receive a credit to your student account for the amount of the Plan. More information is [here](#).

You can only opt out of the Health Plan upon showing proof of other equivalent health coverage. Similarly, you can only opt out of the Dental Plan with other equivalent dental coverage. You can opt out completely from the GSA Health & Dental Plan upon showing proof of other equivalent health and dental coverage.

Opt outs are valid for the whole policy year, from September 1st – August 31st.

International Students

The Alberta government provides residents of Alberta and international students who will reside in

Alberta for at least 12 months with a health insurance plan – the Alberta Health Care Insurance Plan (AHCIP). To ensure that international students not covered by AHCIP have adequate health coverage while residing in Alberta, the University of Alberta has arranged for mandatory medical coverage for all new international students. All students are automatically registered in this program.

Detailed information on the University of Alberta Health Insurance Plan (UAHIP), including eligibility, is available at <https://www.ualberta.ca/international>

University Health Centre

As a student at the University of Alberta, you are assessed a non-refundable, mandatory health services fee for the operation of the University Health Centre. The Health Centre provides access to a wide range of health services on campus.

For more information on the services available to you, please visit the University Health Centre, 2-200 Students ' Union Building (2nd Floor SUB) or visit <https://www.ualberta.ca/services/health-centre/index.html>

13. PHYSIOLOGY GRADUATE STUDENTS' ASSOCIATION (PGSA)

The Physiology Graduate Student's Association (PGSA) is a graduate students' organization that is part of the University of Alberta GSA (Graduate Students Association). The PGSA was created to provide a forum for graduate students to voice their opinions and concerns regarding university and graduate student life. The PGSA executive functions as a liaison between the students and the Faculty and Administration. The PGSA is also dedicated to create a dynamic and vibrant social environment that enhances both student interaction and scientific collaboration. This is done through the organization of events such as the annual Physiology Student Research Day, the Physiology Graduate Student Seminar Series and informal social gatherings.

The PGSA is composed of seven executive members: President, Vice-President, VP academic, VP financial (treasurer), VP social, VP communications and VP external/GSA Representative. Elections are held annually (in May), and a term of office is for one year. Any graduate student in the Department of Physiology may run for and hold an executive position. All graduate students within the Department of Physiology are members of the PGSA and are encouraged to vote for the executives in anonymous elections. Student input and participation is essential to help ensure that every graduate student gets the most out their graduate experience.

- Co-Presidents: Ju-Young Bae and Jeremy Wong
- VP Academic: Jo Munkombwe
- VP Social & Communications: Vidhya Krishnan
- VP Finance: Anran Zhang
- VP External: Mohaddeseh Pakzamir
- VP Events:

FoMD Graduate Programs Committee

The GPC in the FoMD is Chaired by Dr. Alan Underhill and comprises Graduate Coordinators/Directors from all graduate programs in the FoMD, including two graduate student representatives. It works with FGPS and individual departments to provide oversight and assistance with program development, professional development, ensuring consistent standards and provision of student services.

14. SUPERVISORY RESPONSIBILITIES

The supervisor is directly responsible for the supervision of the student's program. In this capacity, the supervisor assists the student in planning a program, ensures that the student is aware of all program requirements, degree regulations, and general regulations of the department and the Faculty of Graduate and Postdoctoral Studies (FGPS), provides counsel on all aspects of the program, and stays informed about the student's research activities and progress. The supervisor is also charged with ensuring that students conduct their research in a manner that is as effective, safe, and productive as possible. The supervisor must oversee a program of studies for the student, arrange for and attend all supervisory committee meetings and the candidate's examinations, ensuring that these are scheduled and held in accordance with FGPS regulations, and must review the thesis both in draft and in final form. The department's Graduate Coordinator/Director is the official representative of the department to its graduate students.

FGPS has established guidelines for selection of supervisors. Supervision of graduate students is a privilege, not a right, of university faculty members. Supervisors should have a vigorous, funded research program and a successful record of supervising graduate students (see below for new faculty). In this department, when graduate applications are reviewed, the following criteria will be used in assessing supervisor suitability:

- prospective graduate student supervisors will have an active and productive research program; productivity will be judged by laboratory research funding, and quality of research publications in the past five years;
- the prospective supervisor shall have a good record of graduate student supervision as judged by the experience of previous students;
- new assistant professors are encouraged to take on graduate students, but normally up to a maximum of two concurrent students during the first five years of appointment or until graduation of their first PhD student, whichever comes first;
- normally, no professor will be permitted to supervise more than four students in the Department of Physiology at one time.
- Preferably in the first month of a new graduate student's program, the supervisor and student should complete the Student Supervisor Guidelines. This is a one-time process as part of a first meeting between each new pairing of a graduate supervisor and graduate student. It is an opportunity to get the relationship off to a strong start and discuss critical topics including: expectations, roles and responsibilities, modes and frequency of communications/meetings, funding supports, work schedule, authorship, data collection and stewardship, intellectual property, etc. The form is initiated by the Physiology Graduate Program office on behalf of the student and supervisor.

The supervisor, with the support of the department, should also:

- provide an environment for the student that is conducive to research and in which the student can grow intellectually;
- provide appropriate guidance to the student on the nature of research and the standard expected, and be accessible to give advice and constructive feedback; at the beginning of the supervisory relationship, the student should be made aware of the normal expectations held by the supervisor and the department;
- with the student, establish a realistic timetable for completion of various phases of the program;
- consider a graduate student as a "junior colleague in research";
- ensure that there are sufficient materials and supervisory resources for each graduate student under supervision;

- work with the student to establish the supervisory committee as soon as possible after the start of the program, and ensure that it maintains contact and formally meets at least once a year with the student;
- when going on leave or an extended period of absence, ensure that the student is adequately supervised by the provision of an acting supervisor (who should be a member of the supervisory committee);
- ensure that the student is aware of his/her guidelines (as listed below) and, when necessary, assist the student in meeting these;
- set up committee meetings and examinations after consultation and with the full knowledge of the student;
- conduct an annual review of progress with the student.

Supervisory Committee

The supervisor, in consultation with the student, will nominate at least two other faculty members from the Department of Physiology and other departments, as desirable, to form a committee to supervise the student's graduate program. The committee must be approved by the graduate coordinator and/or the Chair of the Department. The committee will be established within the first year of entry into the program and the supervisor will serve as Chair of the committee. At the first committee meeting the student should present a summary of research goals and progress. Members of the supervisory committee will be selected on the basis of expertise in areas related to the student's planned research so that they can advise the student toward successful completion of a research project. The supervisory committee will recommend the student's courses and monitor the progress in course work and research. The committee as a whole must meet with the student at least once each year. A brief written committee meeting report of the meeting should be made available to the student and a copy placed in the student's file.

15. GRADUATE STUDENT RESPONSIBILITIES

Graduate students are ultimately responsible for their own programs. They are expected to read the University Calendar and any other relevant documents to become familiar with all regulations and deadlines related to their programs. The students' fundamental responsibilities include ensuring that their registration is accurate and does not lapse, submitting appropriate forms to the department for signature and processing, and paying all fees required by the deadline dates set out in the Calendar. Students are to:

- make themselves aware of the contents of the graduate portions of the University Calendar and take responsibility for their own program;
- maintain open communication with their supervisor and the graduate coordinator concerning any problem, either real or perceived;
- inform the supervisor regularly about progress, and provide the supervisor with an annual report for distribution to the supervisory committee and the graduate coordinator;
- make research results accessible (beyond their appearance in a thesis) to an appropriate audience;
- be aware of deadlines for possible scholarship applications, and seek advice and assistance from the department in making applications;

- be prepared to undertake limited undergraduate teaching assignments (lectures, tutorials, reviews, mentoring, demonstrations or quizzes) as part of their academic apprenticeship.

Graduate students are advised to read the appropriate sections of the current University Calendar, particularly sections:

University Regulations and Information for Students
Regulations of the Faculty of Graduate and Postdoctoral Studies
Degree and Postgraduate Diploma Regulations
Graduate Financial Aid

<https://calendar.ualberta.ca/index.php>

Professional Development for Graduate Students

Students are encouraged to produce an individual professional development plan in the first year of their program and update it every year. Online resources are available to help graduate students [develop professional skills](#) and qualities sought by a range of employers.

From cultivating a teaching portfolio and integrating ethics into research, to preparing for careers outside academia, there are sessions and workshops year-round to help students now and in the future.

Students can make themselves competitive in the global market by starting their professional development the day they arrive on campus, not after their dissertation.

- Communication
- Career Development
- Professional Practice

Note: These categories are general resources for graduate students, not a formalized development program. Some programs that students can access have professional development activities, such as oral presentation skills, grant writing, research paper writing etc. Students may also be interested in the formal [Graduate Teaching and Learning Program](#).

Professional Development Requirements

The University of Alberta considers professional development to be an important component of any graduate student's program of studies, and is the first Canadian university to implement the Professional Development (PD) Requirement (following some of the Ivy League colleges in the United States). It's an exciting new initiative to help graduate students recognize their talents, pursue their interests, learn professional skills and make the connections that will help them excel in their chosen field. Professional development refers to knowledge and skills that complement the disciplinary knowledge and technical skills that remain the most important aspects of graduate education, with a view to assisting graduate students to transition into employment.

All graduate students at the University of Alberta are required to submit an individualized professional development plan to the department for their program of studies within 12 months of the program's commencement for master's students and within 18 months of the program's commencement for doctoral students. The plan is a career and skills planning document that allows graduate students to consider their future careers in an organized way and to plan their participation in professional development activities in conjunction with their academic activities. A template for an Individual Professional Development plan is available from the Faculty of Graduate Studies and Research. In

addition to the IDP, each student is required to complete 8 hours of professional development activities. Given the diverse areas of research in the Department of Physiology and even more diverse careers paths that follow, the department has not prescribed specific professional development activities but instead encourages students to seek out activities that align with their individual career interests to develop non-disciplinary skills not included in their programs. For guidance with eligible activities please refer to the [PD website](#):

Also, consult with the Director of Graduate Studies if you have any questions regarding the eligibility of specific activities.

Prior to convocation, all graduate students must submit evidence of the completion of this requirement to their department.

Seminars

Graduate students are expected to attend at least 70% of the semi-monthly seminars as well as MSc and PhD defense seminars. Each student will be required to keep a record of the seminars attended. Failure to comply with this requirement may result in failure to complete all the requirements for the degree.

All PhD students will present a 45-50 60 minute seminar on their research at the time of their thesis examination, generally immediately prior to the oral defense.

The MSc candidate will normally present a 30-45 minute seminar. This seminar may be presented to the University, at the discretion of the supervisory committee. This seminar is also generally given immediately prior to the oral defense.

Teaching Opportunities

Students wishing to gain teaching experience are encouraged to participate in the Graduate Teaching and Learning Program offered by FGPS. This program provides instruction on basic teaching principles and how to organize and deliver lecture material. Students who complete level II of this program will obtain lecturing experience and have the qualification denoted on their final transcript.

Ethics and Academic Citizenship Requirements (as of FALL 2022)

As of Fall 2022 the **Ethics and Academic Citizenship Requirement** or [Link](#) will *replace* the current Academic Integrity and Ethics Training Requirement. The 2021-2022 academic year will be a period of transition to support current students and departments.

Current students (registered before July 2022) will complete the eight hour ethics requirement through a combination of the GET Online Course (5 hours ethics credit), workshops, online courses, or departmental offerings do not need to do additional training. Those students who completed the GET Course, but need to fulfill the remaining three hours of the 8 hour requirement can find a list of accepted activities on the [Academic Integrity and Ethics Training Requirement Resources website](#)

Annual Reports

Each year every graduate student is expected to complete an annual report. This report is a summary of the students' academic activities, research, presentations, teaching and funding activities for the previous calendar year. The online reports are released to the students each fall by FGPS and should be completed prior to annual meetings with the Graduate Program Director in the Winter term. The annual report and minutes from the most recent committee meeting should be submitted to the Graduate Program Director who will meet with each student individually to review the report, address any concerns, and make recommendations for completion of required program components.

16. ACADEMIC STANDING

Students will be expected to achieve a grade of at least C+ in all required courses and normally maintain a cumulative average of at least 2.7. If a student has an average between 2.3 and 2.7 the department may recommend termination of program, or continuation in the program for a specified probationary period. The student will be expected to take additional course work and meet the minimum grade point average or have their program terminated.

17. CHANGE OF STATUS

Transfer from an MSc to a PhD program will take place after consideration of the thesis proposal, normally at the end of the first year. Other changes in status (e.g., Transfer from PhD to MSc; termination of program; transfer from one department and/or faculty to another) can be recommended by the supervisory committee or the supervisor to the GSC at any time, depending on the student's progress in course work and research. Recommendations for change of status may also be initiated by FGPS or the GSC. The GSC will review changes in status and make recommendations to FGPS, as required. A student may apply to the GSC for a change of supervisor or of other members of the supervisory committee. See also Section 19 for Thesis Proposal Guidelines.

18. INTELLECTUAL PROPERTY

Issues relating to Intellectual Property are discussed briefly below. Detailed discussions can be found at: <https://uofa.ualberta.ca/graduate-studies/about/graduate-program-manual/section-10-intellectual-property>

Guidelines for Authorship

Publication practices vary widely between disciplines, so a single set of firm policies governing authorship is not possible or desirable.

The recommended best practice is for each department to develop its own special guidelines in order to inform graduate students, academic staff, and other collaborators in research.

General FGPS guidelines intended to prompt discussion of expectations at the department level are outlined in the GPS [Graduate Program Manual--Section 10: Intellectual Property](#). However, practices differ even between sub-disciplines in physiology. Therefore discussion with your supervisor and supervisory committee is important. The earlier this occurs in the research/publication process the better.

Contact the Department of Physiology for more information.

Guidelines for Ownership of Research Materials

While the ownership of inventions and copyright is clearly defined, the ownership of research materials is less clear.

Some research materials, such as cell strains, cDNA constructs, transgenic animals, antibodies and prototypes of inventions fall under the existing U of A and FGPS policy (see link below) because they mainly would be interpreted to be outcomes of research. The existing policy recognizes the rights of the inventors, including graduate students, to determine the use of the results of research.

Ownership of original research materials used to produce the outcome (e.g., laboratory records, original spectroscopy reports, and so on) is not covered by the policy.

[Guidelines](#)

Graduate Students Supported by Research Contracts or Affiliated Institutions

The following conditions should be followed when a graduate student is supported by a research contract or by an affiliated institution.

- Academic and administrative aspects of the student's program such as admission, supervision, academic standing, examinations, and convocation shall follow existing U of A regulations.
- The student is the sole possessor of the thesis copyright.
- The supervisor's signature is required when a student signs any contract entering into an agreement for research support.
- A request to delay publication of thesis and material shall follow FGPS Council policy.

19. THESIS PROPOSAL

Instructions taken from FoMD Graduate Program [Regulations](#)

Students transferring from a MSc to a PhD

The recommended timeframe for transferring from an MSc to a PhD program is after 12 months from the start of the graduate program, with a maximum limit of 24 months. See [GPS Change of Program](#) for additional information.

Procedure and Requirements

- Students enrolled in an MSc program wishing to transition to a PhD program without first completing the MSc should inform their Supervisor and Supervisory Committee.
- To initiate the transfer process, the student must first obtain approval from their Supervisory Committee typically 1-2 months prior to the desired transfer date.
- If approval to proceed with the transfer process is granted, the Supervisor schedules a PhD Thesis Proposal Meeting with the Supervisory Committee, at which the student will present and defend their PhD Thesis proposal.
- The PhD Thesis Proposal follows a defined format:
 - Summary of literature; introduction to the student's topic; presentation of preliminary results
 - Hypotheses
 - Description of project including methods
- **This document is prepared in consultation with the Supervisor.** It focuses on the projected, future research that will form the basis of the PhD thesis work. It should be hypothesis-driven and be supported by the preliminary data generated by the student.
- The document should not exceed 5 single-spaced pages, excluding figures, tables, and references.
- The Thesis proposal must be submitted to the Supervisor, all members of the Supervisory Committee and the Director of Graduate Studies, at least one week before the scheduled meeting.
- PhD Thesis Proposal Meeting:
 - At the PhD Thesis Proposal Meeting, the student will present their PhD proposal in a brief 20-minute oral presentation that is prepared with the assistance of the Supervisor.
 - The presentation will be followed by a 40-minute question period focused on the proposal.
 - The Committee shall evaluate whether the proposed work is of sufficient novelty, quality and quantity to satisfy the requirements of a PhD.
 - Note that it is common during the question period for Committee members to provide feedback and suggestions to improve the proposal.
 - The Committee will also decide on the suitability of the candidate to advance to the PhD program.
 - Successful completion of this step requires a unanimous positive decision that will be communicated to the student (and Director of Graduate Studies and Graduate Program Administrator) by the Supervisor at the meeting (or within one week of the meeting).

- Possible Outcomes of the PhD Thesis Proposal Meeting:
 - If the final decision from the Supervisory Committee is positive, the department Graduate Program Administrator will submit the ‘Change of Category’ and ‘Appointment of Supervisor(s) and Supervisory Committee’ forms to GPS. Upon successful transfer, students will be designated as ‘Provisional PhD Students’ and become eligible to take the Candidacy Examination.
 - If the final decision at the PhD Thesis Proposal Meeting is negative, the student and Supervisor will have one opportunity to submit a revised proposal in accordance with the Supervisory Committee recommendations. The timeframe for submission of the revised proposal will be determined by the Director of Graduate Studies in consultation with the Supervisor (the suggested time frame must meet program requirements for time to transfer and for completion of the Candidacy). If the second attempt to transfer to the PhD program is unsuccessful, or if the student decides not to make a second attempt to transfer from the MSc to the PhD program, the student will be given the options to complete an MSc or withdraw from the program.

PhD Direct Admissions

Candidates entering the PhD program directly will prepare a PhD Thesis proposal and have a Thesis Proposal Meeting within the first 18 months of starting their program. This meeting is identical to that described above with the exception that “the Committee will not decide on the suitability of the candidate for the PhD program”. That decision was made upon admission.

Possible Outcomes of the PhD Thesis Proposal Meeting:

- If the decision from the Supervisory Committee is positive, the student can proceed to take the Candidacy Examination.
- If the decision on the PhD Thesis Proposal Meeting is negative, the student and supervisor will revise the Thesis Proposal and reconvene a second PhD Thesis Proposal Meeting within a timeframe determined by the Director of Graduate Studies in consultation with the Supervisor (the suggested time frame must meet program requirements for time to completion of the Candidacy). If the decision of the second Thesis Proposal Meeting is also negative, the Supervisory Committee will decide whether a third attempt is warranted. If not, the student will be given the options to transfer to the MSc program or withdraw from the program.

20. THESES

The results of the student's research may be presented in a "traditional" or "paper-based" format, both of which must include a literature review and a general discussion.

The results of the thesis should be original and of publishable quality for peer-reviewed journals, although prior publication is not a prerequisite, nor a guarantee for a successful outcome. The number of publications arising from the thesis research is also not a direct correlate of success or failure. Individual data chapters in a “traditional” thesis, or papers included in a paper-based thesis should be based largely on the student's own work. The contributions of any co-authors should be detailed in footnotes in relevant chapters and acknowledged in a Preface. Students should similarly state their contributions to papers for which they are not the first author. Such papers should not normally be included in the thesis (except as an Appendix) if they are concurrently or subsequently presented in the thesis of the first author.

Theses Submission Deadlines

Thesis submission deadlines vary from year to year and are associated with the Add/Delete course drop date. Please check the FGPS [site](#).

Theses Format

[link](#)

Thesis Submission [checklist](#).

21. PhD CANDIDACY EXAMINATION

The Faculty of Medicine and Dentistry harmonized all graduate program candidacy exams for students admitted after September 1st, 2024. Requirements for students admitted September 2024 to present are described in Option A. Students admitted prior to September 2024 can select either Option A or B.

OPTION A (ADMISSIONS SEPTEMBER 2024 AND ONWARD)

Instructions taken from FoMD Graduate program [regulations](#)

Candidacy Completion Timeline

- Students entering the PhD program directly or transferring from an MSc to a PhD within the first 18 months must complete the Candidacy Examination within 30 months of starting their graduate program.
- Students transferring to the PhD between 18-24 months from the start of their graduate program must complete the Candidacy Examination within 36 months of starting their graduate program.

Purpose of the Candidacy Examination

The Candidacy Examination is an important learning opportunity to help students consolidate their understanding and advance their thinking in the subject area related to their research.

The examination is also to establish that the student has:

- Proficient knowledge of their research subject area.
- The ability to develop, pursue and complete original scientific research at an advanced level, which requires (in addition to knowledge of the discipline) an understanding of experimental design, critical thinking abilities and communication skills.

Components of the Candidacy Examination

I. Candidacy Research Proposal

Purpose of the Proposal

The Candidacy Research Proposal aims to:

- Define a specific research problem or question.
- Provide appropriate background to explain the rationale for the proposal.
- Design a series of experiments to answer the question.

The document should propose approximately 4-5 years of graduate student research. To help ensure that the scope of the Proposal is appropriate, the student provides a 1-page Proposal Summary to their Supervisory Committee at the start of the process (See [Procedure and Requirements](#)). The Supervisory Committee will assess whether the scope of the Proposal is sufficient and make recommendations if it is not.

The Candidacy Research Proposal is used by the Candidacy Examination Committee (See [GPS Size and Composition of Examining Committees](#)) to evaluate the candidate's creativity and rigor in thinking about experiments. This includes, but is not limited to assessing the candidate's: ability to distinguish a good control from a bad control; understanding of the limitations of proposed approaches and how to ameliorate potential limitations; and their ability to identify, build, and defend novel research. The

Candidacy Examination Committee also assesses whether the student has the appropriate background to understand the significance of the Proposal in the context of that specific research field.

Topic

The Candidacy Research Proposal should be related to the student's field of study and PhD Thesis Proposal. The Candidacy Research Proposal can be developed around the focus of the Thesis Proposal, or the Candidacy Research Proposal can be developed entirely de novo (i.e., in the student's field of study but different from the PhD Thesis Proposal) with the approval of the Supervisory Committee. The key point is that the Candidacy research proposal must include substantial new work. A significant proportion of the proposal should be novel, not part of their own PhD Thesis Proposal or any work ongoing in the lab of their Supervisor or described in grant proposals of the Supervisor. Students must develop the candidacy topic and document independently, without input from the Supervisor or Supervisory Committee. However, they are encouraged to seek guidance from others outside the Committee, such as faculty members or peers.

II. Oral Presentation

Students are required to complete a 20-minute oral presentation as part of the Candidacy Examination. As for the written document the presentation is prepared independently of the supervisor and other examining committee members.

III. Oral Defense

The Oral Defense is a mandatory element of the evaluation process. Examiners will base their questions on content relevant to the Candidacy Research Proposal. *Students should anticipate that questions may pertain to any section of their submitted proposal.*

Format of the Candidacy Research Proposal

The format for the Candidacy Research Proposal is as follows:

- A cover page with the title of the proposal, the student's name, and the date, time, and location of the examination.
- A 1-page research summary (updated from the original 1-page Proposal Summary submitted for pre-approval). See [Procedures, Requirements and Timeline](#) for additional information.
- The research proposal can be no longer than 10 pages. Up to 5 additional pages can be included for Tables and Figures.
- A complete list of citations with titles (this is not included within the 10-page limit).

Formatting Guidelines:

- Use 8.5" x 11" page format.
- All margins should be set at 2 cm (top, bottom, left, and right).
- Text should be in single-spaced 12-point Times New Roman font, allowing for 48 lines per page.
- Condensed fonts or line spacing are not permitted.
- Page numbers must be clearly displayed at the bottom of each page.
- Any text exceeding the specified limits will be ignored, except for references.
- Tables and Figures should be legible when viewed at 100%.

Procedures, Requirements and Timeline

- The student discusses the approximate timing of the Candidacy Examination with their Supervisor.
- When ready to begin the Candidacy Examination process, the student meets with the Director of Graduate Studies for their program to review the process and expectations.
- The Supervisor or Supervisory Committee identifies the University Examiner or Specialized Knowledge Examiner.
- The Supervisor and the department's Graduate Program Administrator establish the availability of the Candidacy Examination Committee (See [GPS Size and Composition of Examining Committees](#)) for the various steps in the candidacy process.

- The Supervisor and the department's Graduate Program Administrator complete the [Candidacy Examination Timeline form](#), which is then sent to the student, the Candidacy Examination Committee and the Director of Graduate Studies.
- Seven weeks prior to the date of the Candidacy Examination the student submits a 1-page Proposal Summary to the Director of Graduate Studies and members of the Supervisory Committee for preliminary approval of the topic and scope. The Proposal Summary must include the following:
 - Title.
 - Hypothesis(es) and rationale for the proposed research.
 - Background: Provide a brief overview of background information needed to explain the novelty and importance of the proposed hypothesis.
 - Goal(s)/Research Aims: Describe the overall goal(s), the proposed research and the specific aims that will test the novel hypothesis.
 - Methods/Approaches/Expertise: Provide a brief overview of relevant experimental methodologies and how these will be used to address each of the research aims. It is expected that the student will have knowledge of all of the approaches proposed.
 - Expected Outcomes: Describe the expected outcomes of the proposed research, both in terms of specific experimental outcomes as well as the more general implications of the proposed research, highlighting its significance and how it will advance knowledge.
- The Supervisory Committee will have 1 week to review the Proposal Summary to determine the suitability of the topic and scope. The Director of Graduate Studies can be consulted as needed.
- Successful approval of the Proposal Summary requires a unanimous positive decision from the Supervisor and the Supervisory Committee.
- Supervisory Committee decision outcomes:
 - If the 1-page Proposal Summary is approved, the Supervisor/Supervisory Committee will inform the student, the Director of Graduate Studies and the department Graduate Program Administrator. The student has 4 weeks to write the full Candidacy Research Proposal and submit it to the Candidacy Examination Committee. This should be done independently of the supervisor and other members of the candidacy examination committee. The student is encouraged to seek out advice and discussions with colleagues.
 - If the Proposal Summary is deemed unacceptable, the student will be provided with feedback and have the option to modify the Proposal Summary or select a new topic. In either case, the student will have 1 week to submit a revised Proposal Summary. The Supervisory Committee will have 1 week to review the revised document. This adds two additional weeks to the process (9 weeks from initial submission of the Proposal Summary). If the revised Proposal Summary is deemed unacceptable, the student will be required to change category to an MSc or withdraw from the program. Potential reasons for not accepting the Proposal Summary could include significant overlap with current research, lack of creativity and scope, poor scientific reasoning, flawed experimental design, or substandard writing.
- On receipt of the Candidacy Research Proposal, the Candidacy Examination Committee will have 2 weeks to review the Proposal and prepare for the examination.
- The department Graduate Program Administrator will send a 'Notice of Examining Committee and Examination Date' form to GPS at least 3 weeks prior to the oral examination.
- If everything proceeds according to schedule, the entire process (from submission of the initial Proposal Summary to the date of the examination) should take 7 weeks to complete. Scheduling conflicts may cause delays, but every effort should be made to ensure that the process does not extend beyond 9 weeks.
- Upon successful completion of the Candidacy Examination, students are designated as "PhD Candidates".

See [GPS Doctoral Candidacy Examination](#) for supplemental information.

Note: The PhD Thesis Proposal vs the Candidacy Research Proposal

The work proposed in both proposals must be novel and rigorous. However, aside from differences in the format (length, etc.), the two major differences between the PhD Thesis Proposal and the Candidacy Research Proposal are:

- The work proposed in the Thesis Proposal must be feasible for completion by the student based on the resources and expertise available.
- After approval of the candidacy document summary the Candidacy Research Proposal is prepared independently of the supervisor and supervisory committee by the student.

Option B (admissions prior to September 2024)

The candidacy exam, for students transferring from an MSc program to a PhD, must be completed within 48 months of the beginning of the MSc program. For students that enter directly into the PhD program the candidacy must be completed within 36 months of the beginning of the PhD program. Any exceptions must be approved by GSC. Students who do not meet the deadline set by GSC will be considered “not in good standing” and will not be eligible for a departmental stipend. Furthermore, GSC reserves the right to set the exam date in these cases.

The format of the Candidacy examination will be as follows:

1. **Written:** If the student has transferred from the MSc program to a PhD, an updated version of the research proposal submitted to justify the transfer must be submitted to the candidacy examining committee. The format of this submission should be limited to 10 double spaced type written pages (not including references or figures) or less with 12 font Times New Roman and 1 inch (2.5cm) margins in a grant format (1 page summary, introduction, background, hypothesis/rationale, proposed research/experiments, significance, references, and figures). If the student is entering directly into a PhD program, the written submission shall be the thesis proposal written in the same format as described above. This document must be submitted 45 days prior to the examination date. This document should serve as a guide to the examining committee regarding the areas of the literature with which the candidate should be familiar to perform world-class research in that area. The written document is due 45 days ahead of the Oral Exam to provide examiners 2 weeks to review the document and provide the candidate with topics at least 30 days prior to the Oral Exam. To ensure that examiners are aware of the examination process, candidates are asked to submit a copy of this section of the Graduate Manual to each examiner when they deliver their proposal.
2. **Oral:** Each examiner will review the proposal and then discuss with the supervisor and other members of the examining committee the overall body of literature with which the candidate should be familiar to carry out research in the chosen field, and also decide on the specific areas to be covered by each examiner. The purpose is to ensure that the candidate emerges with a solid foundation in the literature relevant to the specific discipline, and to minimize overlap between examiners. Each examiner will then discuss the candidacy with the student and provide the student with the specific topic area on which they will question the student. It is recommended that each examiner assign only one topic. The topics submitted should not concentrate on examining the student on how his/her research relates to the examiner's research.

The candidacy exam is **NOT** a comprehensive examination. The goal is to examine whether the student possesses the intellectual rigor required of someone who holds a doctoral degree. Questioning should therefore focus more on examining the student's ability to think and process information and less on memorization of facts. The questions should promote intellectual discussion rather than on whether the student provides a right or wrong answer, and the chair will be a guide in ensuring that this occurs.

The candidacy will begin with an introduction of all participants and a brief description of the examination procedures by the chair. The candidate will then be excused briefly while the chair reviews the candidate's record and establishes the order of questioning. The candidate will then rejoin the session and be allowed 20 minutes to provide a summary of the research proposal. Questioning will commence when the talk is concluded.

The requirements for the composition of the examining committee are summarized in the 'Committee Membership Checklist' Table (at the end of this document, and possible outcomes of a candidacy exam are as described in the FGPS manual.

The student and FGPS will be notified promptly of the outcome of the candidacy examination. All PhD students are considered provisional PhD students until they achieve a clear pass in the candidacy examination. The committee may recommend that students failing the candidacy examination be asked to withdraw from the PhD program, or it may recommend that the student be transferred to an MSc program. Students in the MSc program are not required to take a candidacy examination.

22. FINAL ORAL EXAMINATION

Examining committee composition guidelines can be found [here](#).

MSc final oral examination committee, the supervisory committee and one university examiner approved by FGPS.

NOTE: it is the responsibility of the supervisor and supervisory committee to organize the examining committee and set the date.

Timeline for Preparation of Final MSc Examination

Timeline	Event	Submitted to
4 weeks prior to final examination date	The names of the final examining committee and Chair	Kim Sawada, Student Services forwarded to FGPS
*4 weeks prior to final examination date	Thesis submitted to Department for distribution to the examining committee.	Kim Sawada, Student Services forwarded to examining committee
3 weeks prior to final examination date	Notice of MSc Final Examination Form completion	Prepared by Kim Sawada, Student Services and submitted to FGPS
2 weeks prior to final examination date	Finalize seminar information, title and place	Kim Sawada, Student Services

*There is some flexibility in these timelines but any shortening MUST be approved by all examining committee members.

PhD final oral examination, the supervisory committee will be supplemented by two other examiners. One of these will be from outside the university (the external examiner) and the other should be from outside the department unless there is such a member on the supervisory committee.

The committee must consist of a minimum five faculty member examiners (see [here](#) "COMMITTEE MEMBERSHIP CHECKLIST" Table at end of this document):

- The supervisory committee and (normally) the addition of at least two other faculty members
- At least one University of Alberta member must be from outside the department (see “Internal/External Examiners”).
- One member must be an external examiner/reader from outside the University
- In addition to the external, the committee must have a minimum of one additional arm's length member who comes new to the examination (but may have served on the candidacy examining committee). FGPS encourages departments to nominate for this function a University staff member who comes to the finished thesis having read none of its earlier drafts. In this way the student benefits from an outside perspective without any of the possible biases of the supervisor and supervisory committee members.
- Must be chaired by a faculty member who is not the supervisor (or co-supervisor) but is a member of the student's home department. If this chair is not a member of the examining committee (FGPS encourages this arrangement), the chair does not vote.
- Must have a minimum of five members in attendance at the examination, which includes members participating through teleconferencing (see “Attendance at Examinations”). If an external reader is used, there still needs to be five members in attendance at the examination.
- Roles of members (except the chair) can be in almost any combination. Examples: co-supervisors; a co-supervisor from outside the department; supervisor from outside the department; arm's length member from inside or outside the department, etc.

The chair of all examinations will be a member of the GSC and the appointment is based on availability.

Timeline for Preparation of Final PhD Examination

Timeline	Event	Submitted to
3 months prior to final examination date	Request to invite External Examiner	Kim Sawada, Student Services forwarded to the FoMD
6 weeks prior to final examination date	Signed Preliminary Acceptance of Thesis by Supervisory Committee	Kim Sawada, Student Services
4 weeks prior to final Examination date	The names of the final examining committee and Chair	Kim Sawada, Student Services forwarded to FGPS
4 weeks prior to final examination date	Thesis submitted to Department for distribution to external examiner and all members of the examining committee	Kim Sawada, Student Services forwarded to examining committee
3 weeks prior to final examination date	Notice of PhD Final Examination Form completion	Prepared by Kim Sawada, Student Services and submitted to FGPS
2 weeks prior to final examination date	Finalize seminar information, title and place	Kim Sawada, Student Services

Before the thesis is forwarded to the external examiner, PhD supervisory committee members shall declare to the supervisor by signing the Preliminary Acceptance of Thesis form that the thesis is of adequate substance (and quality) to warrant that the student proceed to the final examination or that the thesis is unsatisfactory and the student should not be allowed to proceed to the final oral examination. This should be completed **at least 3 months prior to the final examination date**.

At least 2 months prior to the examination date it is necessary for the supervisor to provide information on the proposed external examiner including a brief CV and a short statement regarding the external's qualification. The Faculty of Medicine and Dentistry is particularly interested in the external examiner's current scholarly publications, research activities and experience with graduate student education. The external shall be a recognized authority in the special field of research of the candidate's thesis, and will be an experienced supervisor of doctoral students. The proposed external examiner must be in a position to review the thesis objectively and to provide a critical analysis of the work and the presentation. It is therefore essential that the external examiner not have a current or previous association with the student, the supervisor, or the department that would hinder this type of objective analysis.

NOTE: it is the responsibility of the supervisor and supervisory committee to organize the examining committee and set the date. The supervisor may contact potential external examiners to ascertain their availability and willingness to participate, but must have no further contact with the external examiner after the thesis has been distributed to the examining committee. The department will recommend an external examiner and submit their name to the Dean of the department's Faculty for approval. The candidate is not to communicate with the external examiner at any time prior to the examination.

All travel expenses of the external examiner are the responsibility of the supervisor. Limited funding is available from FGPS to support the travel expenses of the external examiner. Other travel funds, or the supervisor's grants (when allowable) may also be considered.

The external examiner will normally attend the examination either in person or, if necessary, by video conferencing. If he/she does not attend, there shall be at least five examiners in attendance, at least one of whom shall not be closely associated with the candidate.

Report of the External Examiner

The external examiner will receive guidelines from FGPS and is requested to prepare and send to the Graduate Coordinator of the Department **at least one week before the examination** a brief written commentary on the structure, methodology, quality, significance and findings of the thesis for the benefit of both the candidate and supervisor. This is required if the thesis is to be considered for Dissertation prizes.

The external is asked to put the thesis in one of the following categories:

- The thesis is acceptable with minor or no revisions.
- Judgment is reserved until after the examination
- The thesis is unacceptable without major revisions. If the thesis is judged to fall into this last category the external needs to contact FGPS immediately.

In the event that the external examiner cannot attend the final examination (either in person or via videoconferencing), the chair of the examining committee will present the external's report and questions to the student for the first time during the examination and the committee will evaluate the student's answers as part of the examination.

Approval of the Final Doctoral Examining Committee

Three weeks prior to the final oral examination the department needs to submit to FGPS the names of all members of the final oral examining committee.

Conduct of the Final MSc and PhD Examination

The Chair will initiate the examination by asking the student to present a brief synopsis of the thesis work. This synopsis is usually presented as a 45-50 min (PhD) or 30-45 min (MSc) seminar to a general university audience, including the examining committee. After a 10 to 15 minute period of questioning by the audience, the examination by the committee will then proceed *in camera*.

In the absence of the student, the Chair will outline the student's record to the examining committee. Any questions related to the student's record or conduct of the examination will be discussed and clarified. The Chair will then ask the student to answer questions from the committee. Questioning will then begin, typically starting with the examiners from outside the university and from outside the department. At the end of the period of questioning, which typically lasts for 2 to 3 hours and involves two rounds of questioning, the student will be asked to leave the room while the examiners decide on the outcome. If all but one member of the committee agrees on a favourable decision, the decision shall be that of the majority, except when the one dissenting vote is that of the external examiner. In that case, the occurrence must be reported to the Dean of FGPS, who will determine an appropriate course of action. Similarly, if two or more dissenting votes are recorded, the case must be referred to the Dean. The Chair does not vote.

Possible outcomes are described in more detail [here](#):

- **Pass**; the decision given when the examining committee has determined that only typographical or minor editorial changes to the thesis are necessary, and that this work can reasonably be accomplished in less than four weeks. All or all but one of the examiners must agree to an outcome of Pass;
- **Pass subject to revisions**; All or all but one of the examiners must agree to an outcome of Pass Subject to Revisions. This outcome means that the student has satisfactorily defended the thesis, that substantive revisions are nonetheless required, and that the examining committee has determined that these revisions can reasonably be accomplished within six months. Revisions may include:
 - Rewriting that goes beyond typographical or minor editorial changes;
 - new research or experimentation;
 - other work to remedy deficiencies in the thesis expected to take at least four weeks.

If the examining committee agrees to an outcome of “Pass subject to revisions,” the chair of the examining committee must provide in writing, within five working days of the examination, to the student, the graduate coordinator, and GPS:

- the reasons for this outcome,
- the details of the required revisions,
- the approval mechanism for meeting the requirement for revisions (e.g., approval of the examining committee chair or supervisor, or approval of the entire examining committee, or select members of the committee), and
- the supervision and assistance the student can expect to receive from committee members.
- a date for the revisions to be resubmitted, as negotiated with the student, but which should be no less than four weeks and no more than six months.

If assessing the revisions will require reconvening the exam, the appropriate outcome is adjournment or fail instead of pass subject to revisions.

The student must make the revisions outlined by the chair within six months of the date of the final examination. Once the required revisions have been made and approved, the chair must submit a completed Thesis Approval/Program Completion form to GPS indicating the committee decision was “pass subject to revisions.” If the required revisions have not been made and approved by the end of the six months deadline, the student will be required to withdraw.

- **Adjourned**; the final oral examination should be adjourned in the following situations:
 - The revisions to the thesis are sufficiently substantial (if further research or experimentation or major reworking of sections are required, or if the committee is not satisfied with the general presentation of the thesis) that it will require a reconvening of the examining committee. The committee should not propose that the candidate has passed; rather the committee shall adjourn the examination.
 - The committee is dissatisfied with the candidate's oral presentation and defense of the thesis, even if the thesis itself is acceptable with or without minor revisions.
 - Compelling, extraordinary circumstances such as a sudden medical emergency during the examination.
 - Discovery of possible offences under the Student Academic Integrity Policy after the examination has started.
- **Fail**; if the final examination committee agrees that the student has failed, the committee Chair shall provide the reasons for this recommendation and the department's decision for the student's program in writing to the Associate Dean, FGPS and to the student. For failed examinations, the Associate Dean, FGPS, will arrange to meet with the candidate and with department representatives before acting upon any department recommendation. A decision of FGPS which affects the student's academic standing (ie, required to withdraw or transfer to a master's program) is appealable.

There is no provision for a final oral examination to be "passed subject to major revisions".

The student and FGPS will be notified promptly of the outcome.

23. CONVOCAATION

See the Office of the Registrar [website](#) for convocation deadlines.

The University of Alberta holds three convocations each year:

	Deadline
Spring Convocation in June	April 1st
Fall Convocation in November	September 29 th
Winter Convocation in March	January 8 th

Students must complete all the following steps **before** the graduate student convocation deadlines in order to convocate:

- [apply for convocation](#) using Bear Tracks
 - Note: All applications for convocation are subject to review and approval by FGPS. Applying to convocate on Bear Tracks **does not** guarantee convocation.
- [prepare and submit thesis](#) to FGPS electronic (PDF) format. This should be done 3-5 working days before the deadline in case changes are requested.
- ensure the department has sent the appropriate program completion form to the FGPS
- pay outstanding fees
- Parchments and other official documentation will not be released to students with outstanding accounts

For more information about convocation ceremony dates, tickets and verifying your convocation status, visit the [Convocation section](#) of the Registrar's Office website.

23. DEPARTMENTAL AWARDS

The department offers three graduate awards:

Mel Schachter Award – presented annually to the top Physiology Honors student from the University of Alberta entering the Physiology Graduate Program.

Peter Pang Award – presented annually for outstanding thesis of the year. Nominations will be made on the recommendation of the external examiner at the time of the thesis defense. (In the absence of nominations, an award will not be made for that year).

Richard Stein Award – Presented annually for the Best Paper of the year by an MSc or PhD student.

Suggested Timelines
Physiology Graduate Program - MSc and PhD

<i>Responsibility</i>	<i>Composition</i>	<i>Timeline</i>	<i>Requirements</i>
Supervisor and student	Supervisor and Student. Meeting to discuss graduate program expectations and complete GPS Graduate Supervisor – Student Guidelines.	During an early meeting between the supervisor(s) and student. Ideally before the commencement of research and as soon as possible after registration in the first academic term. MUST be completed in the first 12 months.	GPS or a student's Graduate Administrator will initiate the Student Supervisor process for all Supervisor-Student pairings. As a student, if you are concerned that your form hasn't been initiated yet, please email gradserv@ualberta.ca , and they can look into it.
Supervisory Committee	Supervisor plus two other members	Set up no later than 12 months after entry into program	Notify the Physiology Office so that proper paperwork can be filed with FGPS.
PhD Thesis Proposal	Supervisory Committee	First 18 months for a direct entry PhD student. Within 24 months of graduate program for students transferring from a MSc to PhD.	One week prior to the meeting, the student should submit a written copy of the proposal. If successful, notify the Physiology Office so that proper paperwork can be filed with FGPS.
Annual Reports	Student and supervisor	Submit by end of January following calendar year	Annual report submitted to Graduate Coordinator, making sure that the required attendance at 20 seminars/year is met
Ethics & Scientific Integrity Training	Student. See information here .	Prior to Candidacy (PhD) or final oral examination (MSc). Courses are available August 1 st of each year.	MSc INT D 710 PhD INT D 710 and INT D 720
Candidacy Examination	- Chair – member of GSC - Chair cannot be supervisor but can be an examiner - Supervisory committee - One Examiner, Arms' length - Committee ratified by FGPS	Direct entry PhD students and MSc students that transferred to a PhD in first 12 months must completed candidacy within 30 months. MSc students transferring to a PhD within 12-24 months must complete within the first 36 months of their graduate program.	See Section 21
Seminar Presentations	Student	PhD: Two seminars – first at the time of the candidacy examination, second at the time of the final examination MSc: One seminar – at the time of the final examination	Sign up with Seminar Coordinator

Final Oral Examination (PhD/MSc thesis)	• Minimum of five faculty members for PhD, four faculty members for MSc • Chair cannot be supervisor or member of Supervisory Committee • Supervisory Committee • For PhD, two additional members, at least one of whom is a member of the U of A faculty. The second is the External Examiner who will be external to UofA. External examiner ratified by the FoMD and then forwarded to FGPS • For MSc, one additional faculty member from the U of A faculty. Membership ratified by FGPS	End of program	See FGPS Guidelines
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