



The following Motions and Documents were considered by the GFC Committee on the Learning Environment at its Wednesday, October 02, 2019 meeting:

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Agenda Title: **Thesis-based Master's and PhD Learning Outcomes**

CARRIED MOTION:

THAT the GFC Committee on the Learning Environment recommend that General Faculties Council approve the learning outcomes for PhD programs as set forth in Attachment 1, to take effect upon approval.

Final Motion: 4.

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**Governance Executive Summary**  
**Action Item**

<b>Agenda Title</b>	<b>Thesis-based Master's and PhD Learning Outcomes</b>
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**Motion**

<p>THAT the GFC Committee on the Learning Environment recommend that General Faculties Council approve the learning outcomes for thesis-based Master's and PhD programs as set forth in Attachment 1, to take effect upon approval.</p>
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**Item**

Action Requested	<input type="checkbox"/> Approval <input checked="" type="checkbox"/> Recommendation
Proposed by	Brooke Milne, Vice-Provost and Dean, Faculty of Graduate Studies and Research
Presenter(s)	Janice Causgrove Dunn, Associate Dean, Faculty of Graduate Studies and Research

**Details**

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is <i>(please be specific)</i>	The proposal is before the committee within its mandate to promote an optimal learning environment.
Executive Summary <i>(outline the specific item – and remember your audience)</i>	<p>Articulating program learning outcomes is a common practice within course-based programs, yet it remains fairly uncommon for research-based programs, which can create a sense of ambiguity for students.</p> <p>Both in response to the new Alberta Credential Framework and in the interest of improved clarity for students, program administrators, and the general public, a cross-faculty committee is developing language and tools to support U of A PhD programs in articulating their learning outcomes.</p> <p>The committee's work produced:</p> <ul style="list-style-type: none"> <li>• A calendar entry that differentiates between Master's and PhD learning outcomes</li> <li>• A PhD learning outcome template, which provides suggested outcomes for all PhD programs and customizable ideas for program-specific outcomes and methods of assessment</li> <li>• A "how to" guide for programs</li> </ul> <p>#1 and #2 were presented to FGSR Council on May 29, 2019 and were approved by e-vote on June 6, 2019. The goal is to have everything ready for faculties to start using in program reviews and new program development by Fall 2019.</p>
Supplementary Notes and context	The committee discussed and provide feedback on the proposal at the September 4, 2019, meeting of CLE.

**Engagement and Routing** (Include meeting dates)

<p>Consultation and Stakeholder Participation (parties who have seen the proposal and in what capacity)</p>	<p>Stakeholders have participated and been consulted with as follows:</p> <ul style="list-style-type: none"> <li>• Cross-faculty working group – December 2018 to present</li> <li>• FGSR Council – March, April and May 2019 meetings</li> <li>• GSA Board – April 10, 2019</li> <li>• Student Focus Group – May 2, 2019</li> </ul>
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Item No. 4

<p>&lt;For information on the protocol see the <a href="#">Governance Resources section Student Participation Protocol</a>&gt;</p>	<ul style="list-style-type: none"> <li>• GFC Executive – May 13, 2019</li> <li>• Academic Standards Committee – May 16, 2019</li> <li>• Academic Planning Committee – May 22, 2019</li> <li>• General Faculties Council – May 27, 2019</li> <li>• GSA Council – June 17, 2019</li> <li>• Committee on the Learning Environment – September 4, 2019</li> </ul>
<p>Approval Route (Governance) (including meeting dates)</p>	<p>Faculty Council of Graduate Studies and Research – May 29, 2019 (approval by e-vote June 6, 2019) GFC Committee on the Learning Environment – September 4 (for discussion), October 2, 2019 GFC Executive Committee – November 4, 2019 General Faculties Council – November 25, 2019</p>

**Strategic Alignment**

<p>Alignment with <i>For the Public Good</i></p>	<p>Please note the Institutional Strategic Plan objective(s)/strategies the proposal supports.</p>	
<p>Alignment with Core Risk Area</p>	<p>Please note below the specific institutional risk(s) this proposal is addressing.</p>	
	<p><input type="checkbox"/> Enrolment Management <input type="checkbox"/> Faculty and Staff <input type="checkbox"/> Funding and Resource Management <input type="checkbox"/> IT Services, Software and Hardware <input checked="" type="checkbox"/> Leadership and Change <input type="checkbox"/> Physical Infrastructure</p>	<p><input checked="" type="checkbox"/> Relationship with Stakeholders <input checked="" type="checkbox"/> Reputation <input type="checkbox"/> Research Enterprise <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Student Success</p>
<p>Legislative Compliance and jurisdiction</p>	<p>Post-Secondary Learning Act (PSLA) General Faculties Council Terms of Reference GFC Executive Committee Terms of Reference GFC Committee on the Learning Environment</p>	

Attachments (each to be numbered 1 - <>)

1. Calendar Entry – Thesis-based Master's and PhD Learning Outcomes
2. Sample Learning Outcomes Template – excerpt from FGSR Learning Outcomes Report May 2019

*Prepared by:* Faculty of Graduate Studies and Research, and University Governance

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**2020-2021 University of Alberta Proposed Calendar Graduate Program Changes:**

Current	Proposed
<p><b>Faculty of Graduate Studies and Research</b></p> <p><b>General Information</b></p> <p><b>Graduate Programs Offered</b>            Graduate work has been offered at the University of Alberta since its inception in 1908. The present organization of the Faculty of Graduate Studies and Research, headed by a Dean, was adopted in 1957.</p> <p>The University of Alberta offers graduate programs leading to doctoral and master's degrees. The specific programs offered in each category are listed below. In addition, the University offers many graduate diploma and certificate programs designed to provide an opportunity for individuals to take a sequence of courses to increase their knowledge of a specialized area without needing to enrol in a degree program.</p> <p>For more information on graduate programs offered, refer to the Program Search Results on the FGSR website.</p> <p><b>**NEW**</b></p>	<p><b>Faculty of Graduate Studies and Research</b></p> <p><b>General Information</b></p> <p><b>Graduate Programs Offered</b>            Graduate work has been offered at the University of Alberta since its inception in 1908. The present organization of the Faculty of Graduate Studies and Research, headed by a Dean, was adopted in 1957.</p> <p>The University of Alberta offers graduate programs leading to doctoral and master's degrees. The specific programs offered in each category are listed below. In addition, the University offers many graduate diploma and certificate programs designed to provide an opportunity for individuals to take a sequence of courses to increase their knowledge of a specialized area without needing to enrol in a degree program.</p> <p><b>The learning outcomes required for all master's and doctoral programs are defined below and aligned with the Alberta Credential Framework.</b> For more information on <u>individual</u> graduate programs offered, refer to the <a href="#">Program Search Results</a> on the FGSR website <u>or see <a href="#">Graduate Programs</a></u>.</p> <p><b>Thesis-Based Master's and PhD Learning Outcomes</b>  <b>The table below defines the elements and learning outcomes of the University of Alberta's research-focused degrees. A Master's degree enables students to develop mastery within a discipline, and to learn how to do research via guided discovery. A PhD degree enables students to develop mastery of research and advanced expertise within a specialist field via designing and conducting original research of broader scope and greater depth than within a Master's degree.</b></p>

	<b>Thesis-Based Master's</b>	<b>PhD*</b>
<b>Program Elements</b>		
Designed to prepare graduates for...	careers requiring specialized expertise, evidence-based judgment, personal responsibility and initiative, in complex and unpredictable professional environments.	leadership roles in careers requiring a high degree of autonomy, the ability to make informed judgments on complex issues in specialist fields, navigation of ambiguity, and innovation in tackling and solving problems.
Students will acquire knowledge and develop skills through a combination of...	<ul style="list-style-type: none"> <li>• directed learning</li> <li>• formative experiences in writing</li> <li>• formative experiences presenting a research project</li> <li>• executing advanced research or creative work</li> <li>• working with experts</li> </ul>	<ul style="list-style-type: none"> <li>• self-directed learning</li> <li>• formative experiences in writing</li> <li>• presenting and defending research proposals and results</li> <li>• designing and executing original research or creative work</li> <li>• working with experts</li> </ul>
The program requires creation of...	a thesis or thesis-equivalent that, at a minimum, should reveal that the student is able to work in a scholarly manner and is acquainted with the principal works published on the subject of the thesis. As far as possible, it should be an original contribution.	original research, or other advanced scholarship, culminating with a thesis or thesis-equivalent that a minimum, must embody the results of original investigations and analyses and be of such quality as to merit publication, meeting the standards of reputable scholarly publications. It must constitute a substantial contribution to the knowledge in the student's field of study.
At a minimum programs will ...	<ul style="list-style-type: none"> <li>• monitor student skills development and progress through ongoing supervision of research</li> </ul>	<ul style="list-style-type: none"> <li>• monitor student skills development and progress via ongoing interaction with the supervisor and through annual</li> </ul>

	<ul style="list-style-type: none"> <li>• assess student competencies through assessment of the student's knowledge in the field, ability to reason with new information and the quality of the thesis or thesis-equivalent at the final examination</li> </ul>	<p>supervisory committee meetings</p> <ul style="list-style-type: none"> <li>• assess the student's competencies during a candidacy examination and assessment of the thesis or thesis-equivalent at the final examination</li> </ul>
	<b>Thesis-Based Master's</b>	<b>PhD*</b>
<p><b>Graduate Competencies</b>  Graduates of each program will be able to...</p>		
<u>Knowledge</u>	<ul style="list-style-type: none"> <li>• demonstrate a systematic understanding of knowledge, and critical awareness of current problems and/or new insights, informed by the forefront of the student's academic discipline or field of study</li> <li>• demonstrate awareness of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrate thorough understanding of a substantial body of knowledge with expertise that is at the forefront of an academic discipline or area of professional practice</li> <li>• demonstrate awareness of: the limitations of one's own work and discipline, the complexity of knowledge, and the potential contributions of other interpretations, methods, and disciplines</li> </ul>
<u>Research Competency</u>	<ul style="list-style-type: none"> <li>• critically evaluate existing research and scholarship within a discipline or field of study</li> <li>• demonstrate development and support of a sustained argument or originality in the application of knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• conceptualize, design and implement advanced level research for the generation of new knowledge, applications, or understanding</li> <li>• make informed judgments on complex issues, in specialist fields</li> </ul>

	<u>Communication Skills</u>	<ul style="list-style-type: none"> <li>communicate ideas, issues, and conclusions clearly and effectively to specialist and non-specialist audiences</li> </ul>	<ul style="list-style-type: none"> <li>communicate complex and/or ambiguous ideas, issues, and conclusions clearly and effectively to specialist and non-specialist audiences</li> </ul>
	<u>Professional Capacity / Autonomy</u>	<ul style="list-style-type: none"> <li>research, reflect upon, and take ownership of the development of skills and career goals</li> <li>demonstrate personal accountability, initiative, and decision-making in complex situations</li> <li>demonstrate the intellectual independence required for continuing professional development</li> </ul>	<ul style="list-style-type: none"> <li>research, reflect upon, and take ownership of the development of skills and career goals</li> <li>demonstrate personal accountability and autonomous initiative and decision-making in complex situations</li> <li>demonstrate the intellectual independence required to be academically and professionally engaged and remain current</li> </ul>
	<u>Ethics</u>	<ul style="list-style-type: none"> <li>identify, explain, analyze, and propose solutions to existing ethical issues particularly as they pertain to the conduct of research in the field of study</li> </ul>	<ul style="list-style-type: none"> <li>identify, explain, analyze, and propose solutions to existing and new ethical issues particularly as they pertain to the conduct of research in the field of study</li> </ul>

\*PhD program elements and graduate competencies are inclusive of and cumulative to those of Master's programs

**Graduate Teaching and Learning Program**  
[...]

**Graduate Teaching and Learning Program**  
[...]

Justification:  
  
Approved by:

**DRAFT - University of Alberta PhD Learning Outcomes and Forms of Evidence**

*Developed by the University of Alberta, in addition to or in support of Alberta Credential framework*

KNOWLEDGE	
The ability to apply and exercise awareness of limits of advanced level knowledge in a specialized field	
<b>University of Alberta PhD Learning Outcomes</b>	<p>Knowledge learning outcomes are specifically defined within programs, in alignment with these requirements from the Alberta Credential Framework:</p> <ol style="list-style-type: none"> <li><b>Depth and Breadth of Knowledge</b> – Students will be able to independently undertake pure or applied research and professional skills at an advanced level, and translate knowledge to research or practice settings. Students will demonstrate a thorough understanding of a substantial body of knowledge with expertise in a specialized field that is at the forefront of an academic discipline or area of professional practice.</li> <li><b>Application of Knowledge</b> – Students will have the capacity to: <ul style="list-style-type: none"> <li>undertake research at an advanced level, and</li> <li>contribute to the development of academic or professional skill, techniques, tools, practices, ideas, theories, approaches, and/or materials.</li> </ul> </li> <li><b>Awareness of Limits of Knowledge</b> – Students will have an appreciation of the limitations of one's own work and discipline, of the complexity of knowledge, and of the potential contributions of other interpretations, methods, and disciplines.</li> </ol>
<b>Program-Specific Learning Outcomes</b>	<p><b>Depth and Breadth of Knowledge</b></p> <p>Students will demonstrate:</p> <ol style="list-style-type: none"> <li>advanced-level knowledge of the general field of [name of field] and specific field(s) of [name of field(s)]</li> <li>expert knowledge in their field of specialization</li> </ol> <p><b>Application of Knowledge</b></p> <p>Students will demonstrate the capacity to:</p> <ol style="list-style-type: none"> <li>undertake [pure/applied/other/NA] research at an advanced level, and</li> <li>contribute to the development of academic or professional skill, techniques, tools, practices, ideas, theories, approaches, and/or materials.</li> </ol> <p><b>Awareness of Limits of Knowledge</b></p> <p>Students will demonstrate:</p> <ol style="list-style-type: none"> <li>an appreciation of the limitations of one's own work and discipline, of the complexity of knowledge, and of the potential contributions of other interpretations, methods, and disciplines.</li> <li>an ability to critically evaluate current research and research techniques and methodologies.</li> </ol>
<b>Forms of Evidence</b>	<p>Knowledge will be <u>assessed</u> and students provided with <u>regular oral and written formative feedback</u> in programs through the appropriate supervisor meetings, supervisory committee meetings, proposal and final thesis defense, specifically:</p> <p><b>Depth and Breadth of Knowledge</b></p> <ol style="list-style-type: none"> <li>Topic presentation and discussion during yearly supervisory committee meetings.</li> <li>The successful completion of [list of course work or learning activities, broken down in specific courses with specific learning outcomes]</li> <li>Passing the [candidacy/qualifying/ comprehensive] examination or completing all explicitly detailed and justified, in writing, committee requirements of a conditional pass in this examination.</li> </ol>

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	<p><b>Application of Knowledge</b></p> <ol style="list-style-type: none"> <li>1. Research progress during yearly supervisory committee meetings.</li> <li>2. The review, defence and approval of a PhD proposal by a [exam committee name].</li> <li>3. The defence of a PhD thesis.</li> </ol> <p><b>Awareness of Limits of Knowledge</b></p> <p>Conducting [field appropriate] review of the state of the art [literature, techniques, standards, works of art] and developing [relationships, networks, collaborations] to identify and explain the [history, theory, research, techniques, paradigms] which is reviewed, defended and approved during of a PhD proposal by a [exam committee name] and at the PhD defence examination.</p> <p><i>It is the responsibility of the supervisor to provide written, detailed and justified formative feedback, and corrective actions for deficiencies, if identified, in Knowledge to the student following each meeting and examination; it is the responsibility of the student to plan and undertake actions to address the feedback.</i></p>
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RESEARCH COMPETENCY	
<p>The ability to conceptualize, design and implement research for the generation of new knowledge; to make informed judgments on complex issues, in a specialized field</p>	
University of Alberta PhD Learning Outcomes	<p><b>Research Competency</b> learning outcomes are specified below and are to be augmented in programs using field specific requirements, as appropriate.</p> <p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline and to adjust the research design or methodology in the light of unforeseen problems.</li> <li>2. Make informed judgments on complex issues in specialist fields, sometimes requiring new methods, such as being able to:               <ul style="list-style-type: none"> <li>• Generate research questions/hypotheses based on experience, discipline specific expertise, and scholarly literature.</li> <li>• Conceptualize, design, and implement a research project of significant scope to complete a thesis.</li> <li>• Assess strengths and weaknesses of various methodological approaches relevant to a research question.</li> <li>• Select, defend, and apply a methodological approach to answer a research question.</li> <li>• Locate and/or generate information/data relevant to a research question.</li> <li>• Situate a research question within the existing field specific knowledge and where appropriate outside the field and/or discipline.</li> <li>• Organize information/data to reveal patterns/themes.</li> <li>• Analyze information/data and synthesize information to generate new knowledge/understanding.</li> <li>• Monitor research progress, refine, and pivot approach as needed.</li> </ul> </li> </ol>
Program-Specific Learning Outcomes	<p>Students will be able to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication in their field.</p>
Forms of Evidence	<p><b>Research Competency</b> will be <u>assessed</u> and students provided with <u>regular oral and written formative feedback</u> in programs through the appropriate committee meetings, proposal and final thesis defense, specifically:</p> <ul style="list-style-type: none"> <li>• Topic presentation and discussion during yearly supervisory committee meetings.</li> <li>• The review, defence and approval of a PhD proposal by a <u>[exam committee name]</u>.</li> <li>• The review, defence and approval of a PhD thesis by a <u>[exam committee name]</u>.</li> <li>• The completion, as first author, of papers or creative works for peer review, in volume and form as appropriate for the field.</li> <li>• Presentations to field appropriate stakeholders at <u>[local, national and/or international conferences, industry, clinics venues appropriate in the field]</u>.</li> </ul> <p><i>It is the responsibility of the supervisor to provide written, detailed and justified formative feedback, and corrective actions for deficiencies, if identified, in Research Capacity to the student following each meeting and examination; it is the responsibility of the student to plan and undertake actions to address the feedback.</i></p>

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<b>COMMUNICATION SKILLS</b> The ability to demonstrate written communication, oral communication, and listening skills, and to communicate effectively and professionally with a broad audience	
<b>University of Alberta PhD Learning Outcomes</b>	<p>Communication Skills learning outcomes are specified below and are to be <b>augmented in programs</b> using field specific requirements as appropriate.</p> <p>Students will be able to communicate complex and/or ambiguous ideas, issues, and conclusions clearly and effectively to specialist and non-specialist audiences, using:</p> <ol style="list-style-type: none"> <li>1. written communication</li> <li>2. oral communication</li> </ol> <p><u>Beneficial Options</u></p> <p>Students will be able to:</p> <ol style="list-style-type: none"> <li>3. communicate using technical, digital, or other methods</li> <li>4. use active listening skills</li> </ol>
<b>Program-Specific Learning Outcomes</b>	<p>Students will demonstrate the ability to write field appropriate publications aimed at peer review.</p>
<b>Forms of Evidence</b>	<p>Communication Skills will be <u>assessed</u> and students provided with <u>regular oral and written formative feedback</u> in programs through the appropriate committee meetings, proposal and final thesis defense, and publications. Mandatory forms of evidence include:</p> <ol style="list-style-type: none"> <li>1. Thesis Proposal               <ul style="list-style-type: none"> <li>● Student successfully wrote their doctoral research proposal.</li> <li>● Student successfully presented and orally defended their doctoral research proposal.</li> </ul> </li> <li>2. Thesis Defence               <ul style="list-style-type: none"> <li>● Student successfully wrote their doctoral thesis.</li> <li>● Student successfully presented and orally defended their doctoral thesis.</li> </ul> </li> <li>3. Communication with specialist and non-specialist audiences - in manners relevant to the field of study, such as:               <ul style="list-style-type: none"> <li>● Clear and effective documentations for course work, grant proposals, and/or manuscripts, as appropriate for the program</li> <li>● Discipline-related communications using technical (eg. schematic), media (eg. video), or digital (eg. code) formats for academic and non-academic audiences</li> <li>● Presentations or lectures at conferences</li> <li>● Teaching of courses, guest lecturing, etc.</li> <li>● Drafts of publications for internal and peer review</li> </ul> </li> </ol> <p><u>Beneficial Options</u></p> <ol style="list-style-type: none"> <li>4. Completing active listening professional development and/or applying active listening in professional settings</li> <li>5. Completing general communication and/or social media professional development or assessment</li> </ol> <p><i>It is the responsibility of the supervisor to provide written, detailed and justified formative feedback, and corrective actions for deficiencies, if identified, in <b>Communication Skills</b> to the student following each meeting and examination; it is the responsibility of the student to plan and undertake actions to address the feedback.</i></p>

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<b>PROFESSIONAL CAPACITY/AUTONOMY</b> The ability to research, reflect upon, and take ownership of the development of skills and career goals	
<b>University of Alberta PhD Learning Outcomes</b>	<p>Professional Capacity/Autonomy learning outcomes are specified below and are to be augmented in programs using field specific requirements as appropriate.</p> <p>Students will be able to demonstrate:</p> <ol style="list-style-type: none"> <li>The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations</li> <li>The intellectual independence to be academically and professionally engaged and current, developed in part through the Individual Development Plan process of:               <ul style="list-style-type: none"> <li>researching potential career options</li> <li>reflecting upon skills and competencies in the areas of creativity, communication, confidence, scholarship, ethical responsibility, critical thinking, and collaboration;</li> <li>creating timelines and milestones for professional development, academic, and personal commitments</li> <li>reviewing progress regularly</li> </ul> </li> <li>The ability to evaluate the broader implications of applying knowledge to particular contexts.</li> <li>The ability to receive, handle and act upon, and provide constructive feedback.</li> </ol> <p><u>Beneficial Options</u></p> <p>Students will be able to demonstrate:</p> <ol style="list-style-type: none"> <li>The ability to take initiative to identify need and provide service to a community.</li> <li>The ability to acquire new, or enhance existing leadership skills, including those required to teach or supervise students.</li> <li>The ability to take initiative to bring about positive change in academic, professional and personal contexts, guided by the principles of equity, diversity and inclusion (EDI).</li> </ol>
<b>Program-Specific Learning Outcomes</b>	<p>Students will demonstrate:</p> <ol style="list-style-type: none"> <li>self-direction and originality in tackling and solving problems, and autonomy in planning and executing research.</li> </ol> <p><u>Beneficial Options</u></p> <ol style="list-style-type: none"> <li>the capability to teach a course and/or be a teaching assistant in the field of [name of field] (e.g. of field specific teaching requirements)</li> <li>field specific communication and networking skills (e.g. field specific professional requirements)</li> <li>[program specific professional development requirements]</li> </ol>
<b>Forms of Evidence</b>	<p>Professional Capacity/Autonomy will be assessed and students provided with regular oral and written formative feedback in programs through:</p>

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	<ol style="list-style-type: none"> <li>1. Presenting and defending degree progress during yearly (or more frequent) formal supervisory committee meetings; progress and performance are to be kept in the minutes of the meeting and within program designated forms</li> <li>2. Documenting, and reviewing with their supervisor, feedback received during supervisor meetings, supervisory committee meetings and candidacy exam, and addressing identified issues.</li> </ol> <p><u>FGSR Professional Development Requirement</u></p> <ol style="list-style-type: none"> <li>3. Completing FGSR or program-specific Individual Development Plan</li> <li>4. Completing 8 hours of professional development activities</li> </ol> <p><u>Beneficial Options</u></p> <ol style="list-style-type: none"> <li>5. Providing feedback to other team members, staff, as appropriate and/or through peer reviewing of field appropriate publications.</li> <li>6. Completing some of the mandatory 8 hours of PD activities in the areas of:             <ul style="list-style-type: none"> <li>• Equity, Diversity, and Inclusion</li> <li>• leadership</li> <li>• professional behaviors, the workplace, and career management</li> <li>• communication and networking</li> </ul> </li> <li>7. Completing service activities within the community.</li> <li>8. Successfully teaching or being a Graduate Teaching Assistant, and receiving evaluative feedback, for at least an undergraduate course in [field]</li> <li>9. [Program specific professional development requirements assessments]</li> </ol> <p><i>It is the responsibility of the supervisor to provide written, detailed and justified formative feedback, and corrective actions for deficiencies, if identified, in Professional Capacity/Autonomy to the student following each meeting and examination; it is the responsibility of the student to plan and undertake actions to address the feedback.</i></p> <p><i>Programs are accountable for assessment of professional development and service activities.</i></p>
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<b>ETHICS</b> The ability to identify, explain, analyze, and propose solutions to ethical issues	
<b>University of Alberta PhD Learning Outcomes</b>	<p>Ethics learning outcomes are specified below and are to be <b>augmented in programs</b> using field specific requirements as appropriate.</p> <p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Identify ethical concerns specific to their field of research, such as treatment of human and animal subjects, interdisciplinary research, and Indigenous research.</li> <li>2. Recall, recognize, analyze, discuss and act in ethical matters in:               <ul style="list-style-type: none"> <li>• the subject field under investigation including those specific to course work, capstone project, thesis, scholarship and funding applications,</li> <li>• academic conduct, and</li> <li>• interactions with others in the community as stipulated in the code of student behaviour.</li> </ul> </li> <li>3. Propose solutions to ethical dilemmas and articulate what makes a particular course of action ethically defensible.</li> <li>4. Identify ethical concerns in academic integrity, use and citation of sources, the misrepresentation of data and/or facts.</li> <li>5. Recognize the importance of information and data handling (confidentiality, transparency, not falsifying data, etc).</li> </ol> <p><u>Beneficial Options</u></p> <ol style="list-style-type: none"> <li>6. Explain, recognize, and analyze ethical areas of responsibility held when teaching or mentoring within their field.</li> </ol>
<b>Program-Specific Learning Outcomes</b>	<p>Students will complete program specific ethics requirements in <span style="background-color: yellow;">[add requirements]</span></p>
<b>Potential Methods of Assessment</b>	<p>Ethics will be <u>assessed</u> and students provided with <u>regular oral and written formative feedback</u> in programs through student records of:</p> <ol style="list-style-type: none"> <li>1. In the first year of their program, completing program course/workshops, or FGSR workshops, or other approved formal activities in the area of ethics, which have embedded assessments and may include:               <ul style="list-style-type: none"> <li>• Student code of conduct,</li> <li>• Plagiarism,</li> <li>• Copyright, and</li> <li>• Sexual violence</li> </ul> </li> <li>7. Beyond the first year of their program, completing program specific ethics training as appropriate, including elements listed in the ethics learning outcomes</li> <li>8. Demonstrating field-appropriate application of ethics principles within the research proposal, thesis, and thesis defence.</li> </ol> <p><i>It is the responsibility of the supervisor to provide written, detailed and justified formative feedback, and corrective actions for deficiencies, if identified, in <b>Ethics</b> to the student following each meeting and examination; it is the responsibility of the student to plan and undertake actions to address the feedback.</i></p>

Text in black is from the Alberta Credential Framework / Text in blue is University of Alberta enhancements