

# OBSTETRICS AND GYNECOLOGY (OBS&GYN)

## OBS&GYN 699 – DIRECTED STUDY

1-5 credits.

Directed study projects as arranged with faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Apply concepts learned in coursework to real life situations

Audience: Undergraduate

2. Read and effectively search scientific literature

Audience: Undergraduate

3. Develop critical, analytical, and independent thinking skills

Audience: Undergraduate

## OBS&GYN 710 – REPRODUCTIVE ENDOCRINE PHYSIOLOGY

3 credits.

A broad grounding in reproductive endocrine physiology at the graduate level, with an emphasis on human and human reproductive health wherever possible. Encompasses an overview of fundamental concepts in endocrinology, the hypothalamic-pituitary axis, steroidogenesis, early embryonic development, pregnancy and maternal-fetal adaptations, and pathologies associated with endocrine disruption and dysregulation. Provides more focus on pathologic pregnancies because such pregnancies lead to a higher risk of adult onset diseases including hypertension, obesity, and metabolic syndrome. Covers pregnancy and pathologic pregnancy in detail.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Recall and summarize fundamental concepts in reproductive endocrinology and physiology, with an emphasis on human and human reproductive health.

Audience: Graduate

2. Gain insights into clinical perspectives of pathologies associated with reproductive endocrinology and physiology. Integrate fundamental concepts with clinical perspectives and apply to case studies.

Audience: Graduate

3. Evaluate primary research articles and demonstrate critical reasoning with regards to methods and conclusions.

Audience: Graduate

4. Demonstrate critical thinking with regards to course material through in-class interactive discussion with peers and faculty.

Audience: Graduate

5. Integrate instruction material and personally-researched scientific texts to formulate individual thoughts on topics not directly covered in lecture.

Audience: Graduate

**OBS&GYN 711 – ADVANCED REPRODUCTIVE ENDOCRINE PHYSIOLOGY**

2 credits.

Advanced learning opportunities in Endocrinology and Reproductive Physiology (ERP) areas, particularly reproduction, with an emphasis on human health whenever possible. Explore scientific questions core to the ERP graduate training program at research level with further in-depth instruction and a focus on cutting-edge knowledge and developments. Topics include pregnancy (ovulation through parturition); embryonic growth and development; lactation biology; and neuroendocrinology. Continuation of OBS&GYN 710. Intended for second- or third-year graduate students.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Develop deep understanding of a reproduction topic.

Audience: Graduate

2. Evaluate primary research articles and demonstrate critical reasoning with regard to methods and conclusions.

Audience: Graduate

3. Demonstrate critical thinking with regard to course material through in-class interactive discussion with peers and faculty.

Audience: Graduate

4. Integrate instruction material and personally-researched scientific texts to formulate individual thoughts on topics not directly covered in lecture.

Audience: Graduate

**OBS&GYN 712 – CRITICAL THINKING IN REPRODUCTIVE ENDOCRINE PHYSIOLOGY**

2 credits.

Provides advanced learning opportunities in Endocrinology and Reproductive Physiology areas, particularly reproduction, emphasizing human health whenever possible. Explores scientific questions core to the ERP graduate training program and teaches how to communicate research findings as presentations. Skills developed include information discovery; organization of papers and identification of argument(s); and creation of documents/reports. Students are the driving force behind achievement of the learning objectives by undertaking learning activities, actively engaging in their peers' activities, and providing constructive feedback to their peers. Prior completion of OBS&GYN 710 recommended but not required.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2022

**Learning Outcomes:** 1. Incorporate knowledge of cutting-edge research in and related to one's research area to a specific research question.

Audience: Graduate

2. Effectively communicate scientific information to course participants through learning activities.

Audience: Graduate

3. Evaluate peer presentations and provide constructive feedback.

Audience: Graduate

4. Distill research knowledge and activities into a variety of scientific outputs.

Audience: Graduate

5. Develop and deliver effective scientific conference-style presentations.

Audience: Graduate

**OBS&GYN 800 – CONCEPTS IN ENDOCRINOLOGY AND REPRODUCTIVE PHYSIOLOGY**

1-3 credits.

Special topics in endocrinology and/or reproductive physiology. Topics may vary.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Identify and describe key theories, concepts, or methods in endocrinology and/or reproductive physiology.

Audience: Graduate

2. Apply, analyze, or evaluate key theories, concepts, or methods in endocrinology and/or reproductive physiology.

Audience: Graduate

**OBS&GYN 909 – OBSTETRICS & GYNECOLOGY INTERNSHIP  
PREP COURSE**

1 credit.

Designed to highlight, review, and allow practice of key concepts in Obstetrics Gynecology. Practice with case simulation, case discussion, didactics, panel discussions, and procedural skills to prepare for success in the first few weeks of an Ob/Gyn residency. Participate in simulations and explore critical interplay between medical care and communication. Discuss common challenges encountered early in residency and throughout an Obstetrics Gynecology career. Taught by a team of faculty, inter-professional staff, residents, fellows, and course directors.

**Requisites:** MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2026**Learning Outcomes:** 1. Diagnose and manage common and critical medical conditions

Audience: Graduate

2. Practice initial orders for acute medical/surgical situations

Audience: Graduate

3. Perform duties as first responder to urgent or emergent patient care situations

Audience: Graduate

4. Accurately interpret and apply laboratory information to clinical scenarios

Audience: Graduate

5. Demonstrate performing informed consent procedures

Audience: Graduate

6. Communicate effectively with patients, families and all members of the healthcare team

Audience: Graduate

7. Describe effective transitions of care and demonstrate in simulated environment

Audience: Graduate

8. Describe the essential role of each member of the healthcare team and strategies for maximizing teamwork

Audience: Graduate

9. Demonstrate self-awareness and recognize the importance of adaptability

Audience: Graduate

10. Identify strategies to address stress inherent in transitioning to internship, during residency, and throughout medical career

Audience: Graduate

**OBS&GYN 910 – INDEPENDENT READING AND RESEARCH IN OB/  
GYN**

2-8 credits.

Independent research under the direct supervision of Obstetric/ Gynecology faculty. Each student's research project is individualized to meet student research goals within context of faculty research needs.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Fall 2025**Learning Outcomes:** 1. Formulate a hypothesis or specific objective if study does not involve hypothesis generating research.

Audience: Graduate

2. Conduct a thorough literature review of the specific research question.

Audience: Graduate

3. Select and apply statistical methodologies appropriate for the proposed analyses.

Audience: Graduate

4. Interpret results correctly and in context of previous findings from literature review.

Audience: Graduate

**OBS&GYN 916 – ABORTION IN WISCONSIN AND BEYOND:  
EXPLORING MEDICAL, PUBLIC HEALTH, AND SOCIAL SCIENCE  
PERSPECTIVES**

2 credits.

Contemporary issues surrounding abortion in the United States with an emphasis on the state of Wisconsin. Abortion-related terminology and clinical practice. Legal and structural barriers that shape inequities in access to abortion care. The relationships between access to abortion care and health and wellbeing, using multidisciplinary approaches. The evolution of pro-choice and reproductive justice movements in the United States and Wisconsin.

**Requisites:** MED SC-M 810, 811, 812, and 813

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Summarize contemporary abortion-related terminology and medical practice.

Audience: Graduate

2. Describe the evolution of abortion care in the United States and Wisconsin from the 19th-21st centuries.

Audience: Graduate

3. Identify legal and structural barriers to abortion care both before and after the Dobbs v. Jackson Women's Health U.S. Supreme Court decision.

Audience: Graduate

4. Describe racial/ethnic-, SES, nativity-, disability, and sexual/gender identity-based inequities in access to abortion care.

Audience: Graduate

5. Identify how population health and social scientists establish linkages between barriers to abortion care access and population health and wellbeing.

Audience: Graduate

6. Analyze the contemporary landscape of pro-choice and reproductive justice movements.

Audience: Graduate

**OBS&GYN 917 – RACE IN AMERICAN OBSTETRICS &  
GYNECOLOGY**

2 credits.

Survey the history of race in American obstetrics and gynecology. Gain understanding of how race and theories of racial difference informed the development of the field and justified the treatment of Black, indigenous and immigrant patients. Understand the vital contributions of Black enslaved women, other women of color, and Irish immigrants to obstetrics and gynecology. Make connections between racialized historical practices and contemporary norms in reproductive healthcare.

**Requisites:** MED SC-M 810, 811, 812, and 813

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Demonstrate understanding of how race informed the evolution of obstetrics and gynecology as a discipline

Audience: Graduate

2. Describe the symbiotic relationship between slavery and obstetrics and gynecology and the contributions of enslaved women to key advances in the discipline

Audience: Graduate

3. Discuss the contradictions between physicians' beliefs in racial inferiority of Black and Irish women and the use of their bodies as medical exemplars

Audience: Graduate

4. Describe how structural racism impacted disparities in reproductive health during the antebellum era and late 19th century

Audience: Graduate

5. Demonstrate understanding of how historical stereotyping and treatment of Black women has led to institutionalized stereotyping in present-day obstetrics and gynecology

Audience: Graduate

6. Describe the progression of racial/ethnic disparities in reproductive health from the antebellum era to the present day

Audience: Graduate

**OBS&GYN 919 – INDIVIDUALIZED OBSTETRICS & GYNECOLOGY ELECTIVE**

2-4 credits.

In-depth exposure to ambulatory gynecology, operative gynecology, normal and high-risk obstetrics and subspecialty clinics, working under the direct supervision of Obstetric/Gynecology faculty, residents, fellows, certified midwives, and advanced practice practitioners. Individualized to meet each location's capacity and student preference.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Perform a hypothesis driven history and complete a targeted exam

Audience: Graduate

2. Develop and present a weighted differential diagnosis for medical and surgical conditions

Audience: Graduate

3. Using clinical evidence, adapt and justify the working diagnosis

Audience: Graduate

4. Present a diagnostic plan including laboratory and imaging modalities

Audience: Graduate

5. Correctly interpret imaging and laboratory findings and communicate results to patients and team members

Audience: Graduate

6. Develop and implement effective patient management plans

Audience: Graduate

7. Complete written documentation in a comprehensive, concise, accurate and timely manner

Audience: Graduate

8. Review, interpret, and present current literature to support patient care

Audience: Graduate

9. Communicate effectively with patients, families, physicians and non-physician team members

Audience: Graduate

10. Communicate and collaborate with consultants and/or primary team and other providers to coordinate care

Audience: Graduate

11. Engage patients in shared decision-making regarding tests, orders, and procedures

Audience: Graduate

12. Avoid medical jargon when communicating with patients and families

Audience: Graduate

13. Recognize limitations and seek assistance as appropriate

Audience: Graduate

14. Understand the process of obtaining informed consent prior to surgical intervention

Audience: Graduate

15. Recognize perioperative conditions that determine patient level of care and interpret physiologic changes that require changing that level of care

**OBS&GYN 921 – GYNECOLOGIC ONCOLOGY**

2-4 credits.

In-depth exposure to outpatient care of the patient with gynecologic cancer. Occasional opportunities to provide inpatient care to patients students have examined or consulted with in clinic. Work under the direct supervision of the gynecologic oncology faculty, fellows, residents, and APPs. Function at the intern level and play an active role in the care of gynecologic oncology patients.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Perform a hypothesis driven history and complete a targeted exam.

Audience: Graduate

2. Develop and present a weighted differential diagnosis for medical and surgical conditions

Audience: Graduate

3. Using clinical evidence, adapt and justify the working diagnosis.

Audience: Graduate

4. Present a diagnostic plan including laboratory and imaging modalities.

Audience: Graduate

5. Correctly interpret imaging and laboratory findings and communicate results to patients and team members.

Audience: Graduate

6. Develop and implement effective patient management plans.

Audience: Graduate

7. Complete written documentation in a comprehensive, concise, accurate and timely manner.

Audience: Graduate

8. Review, interpret, and present current literature to support patient care.

Audience: Graduate

9. Communicate effectively with patients, families, physicians and non-physician team members.

Audience: Graduate

10. Communicate and collaborate with consultants and/or primary team and other providers to coordinate care.

Audience: Graduate

11. Engage patients in shared decision-making regarding tests, orders, and procedures.

Audience: Graduate

12. Avoid medical jargon when communicating with patients and families.

Audience: Graduate

13. Recognize limitations and seek assistance as appropriate.

Audience: Graduate

14. Understand the process of obtaining informed consent prior to surgical intervention.

Audience: Graduate

15. Recognize perioperative conditions that determine patient level of care

**OBS&GYN 934 – OBSTETRIC HOSPITALIST**

4 credits.

In-depth exposure to inpatient care of patients on Labor and Delivery. Work under the direct supervision of the Obstetrics Hospitalist whose primary role is the general medical care of hospitalized patients. Help manage laboring patients, see patients in labor and delivery, triage, and assist with cesarean sections. Round on all patients for whom you are involved in care once patients are post-partum. Function as the residents do at night and assist with cross coverage of inpatient gynecology patients as well as see patients who arrive in the emergency department with obstetric or gynecologic concerns. You may assist in the operating room if the patients who present to the emergency room require immediate surgery.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2021**Learning Outcomes:** 1. Perform a hypothesis driven history and complete a targeted exam

Audience: Graduate

2. Develop and present a weighted differential diagnosis for medical and surgical conditions

Audience: Graduate

3. Using clinical evidence, adapt and justify the working diagnosis

Audience: Graduate

4. Present a diagnostic plan including laboratory and imaging modalities

Audience: Graduate

5. Correctly interpret imaging and laboratory findings and communicate results to patients and team members

Audience: Graduate

6. Develop and implement effective patient management plans

Audience: Graduate

7. Complete written documentation in a comprehensive, concise, accurate and timely manner

Audience: Graduate

8. Review, interpret, and present current literature to support patient care

Audience: Graduate

9. Communicate effectively with patients, families, physicians and non-physician team members

Audience: Graduate

10. Communicate and collaborate with consultants and/or primary team and other providers to coordinate care

Audience: Graduate

11. Engage patients in shared decision-making regarding tests, orders, and procedures

Audience: Graduate

12. Avoid medical jargon when communicating with patients and families

Audience: Graduate

13. Recognize limitations and seek assistance as appropriate

Audience: Graduate

14. Understand the process of obtaining informed consent prior to surgical

**OBS&GYN 935 – TEACHING IN THE CLINICAL SETTING**

2 credits.

As Phase 3 students, apply teaching theories to the pursuit of improving the clinical learning environment for Phase 2 students. Unique opportunity for Phase 3 medical students to gain experience with clinical teaching in a capacity similar to how they will function as an intern without the demands and responsibilities of residency, with a focus on establishing good teaching practices. Spend time in the clinical setting advising and mentoring Phase 2 students. No direct participation in patient care.

Prepare and deliver short teaching sessions for Phase 2 students from a standard curriculum of learning topics to help Phase 2 students achieve success on Labor Delivery. Develop innovative ways to guide Phase 2 students to effectively utilize clinical resources, navigate the basics of patient assessment, and engage with the patient care team.

**Requisites:** MED SC-M 810, 811, 812, and 813**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2026**Learning Outcomes:** 1. Explain the basic tenets of adult learning theory and how this applies to teaching medical students.

Audience: Graduate

2. Describe the difference between formative and summative feedback and be able to provide this feedback to Phase 2 students for both their written clinical documentation and their oral clinical presentations.

Audience: Graduate

3. Compare/contrast the different types of instructional methods available and be able to apply these in the clinical setting.

Audience: Graduate

4. Demonstrate how to give an effective presentation on at least 1 topic per week, chosen from a list of central concepts about labor and delivery.

Audience: Graduate

5. Utilize strategies to create a positive learning environment on labor and delivery.

Audience: Graduate

**OBS&GYN 938 – OBSTETRICS & GYNECOLOGY INPATIENT ACTING INTERNSHIP**

4 credits.

Provides an in-depth exposure to inpatient and operative management of complicated obstetric and gynecologic patients. Work under the direct supervision of a senior resident, fellows and the obstetrician-gynecology faculty. Provides an opportunity to function at the intern level and play an active role in inpatient management of obstetric and gynecologic patients.

**Requisites:** MED SC-M 810, 811, 812, and 813

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Explain the physiology of the female pelvic anatomy including arterial blood supply, venous and lymphatic drainage, neurologic innervation and anatomic relationship between the reproductive organs and the non-gynecologic abdominal viscera.

Audience: Graduate

2. Develop an evidenced-based understanding of the pathophysiology and appropriate management options for common gynecological disorders

Audience: Graduate

3. Explain the indications for and limitations of commonly used gynecological screening tests.

Audience: Graduate

4. Demonstrate basic knowledge regarding common post-operative complications (e.g. wound infection, urinary tract infection, thromboembolism, bleeding) and the appropriate management of each.

Audience: Graduate

5. Demonstrates an understanding of common non-reproductive medical disorders.

Audience: Graduate

6. Identify and explain common gynecological surgical procedures in terms of patient selection and the risks and benefits for each procedure .

Audience: Graduate

7. Describe indications and list the appropriate preoperative evaluations including lab tests, radiographic imaging, and ECG.

Audience: Graduate

8. Identify and describe use of common instruments used in gynecologic surgery.

Audience: Graduate

9. Discuss common intraoperative complications associated with common gynecologic procedures and the appropriate management of each.

Audience: Graduate

10. Discuss the surgical anatomy, common procedural indications, comorbidities, and prophylactic strategies to reduce post-operative complications with common gynecological surgeries.

Audience: Graduate

**OBS&GYN/AN SCI/ZOOLOGY 954 – SEMINAR IN ENDOCRINOLOGY-REPRODUCTIVE PHYSIOLOGY**

0-1 credits.

Promotes scientific and professional development. Presenters develop and deliver research presentations to a scientific audience, field questions, and receive critiques about their presentation style and scientific approach. Additional presentations include professional development, career advancement opportunities, and topics of interest to the endocrinology and reproduction community at large.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Demonstrate knowledge of cutting-edge research in and related to one's research area through the development and delivery of research presentations

Audience: Graduate

2. Communicate complex ideas in research presentations and questions in a clear and understandable manner

Audience: Graduate

3. Evaluate presentations and providing effective feedback

Audience: Graduate

**OBS&GYN 955 – RESPONSIBLE CONDUCT OF RESEARCH FOR BIOMEDICAL GRADUATE STUDENTS**

2 credits.

Meets the NIH Institutional Training Grant requirements of repeat/further instruction in the nine recommended areas (1) conflict of interest – personal, professional, and financial; (2) policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices; (3) mentor/mentee responsibilities and relationships; (4) collaborative research including collaborations with industry; (5) peer review; (6) data acquisition and laboratory tools, and management, sharing and ownership; (7) research misconduct and policies for handling misconduct; (8) responsible authorship and publication; (9) the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research.

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Be knowledgeable of the ethics and philosophies that shape our understandings of the responsible conduct of biomedical research

Audience: Graduate

2. Recognize and apply principles of ethical and professional conduct

Audience: Graduate

3. Be aware of mechanisms and processes available to UW-Madison graduate students to help ensure the practice of the responsible conduct of biomedical research

Audience: Graduate

**OBS&GYN 956 – ADVANCED RESPONSIBLE CONDUCT OF RESEARCH FOR BIOMEDICAL STUDENTS**

1 credit.

Meets the NIH Institutional Training Grant requirements of repeat/further instruction in the nine recommended areas (1) conflict of interest – personal, professional, and financial; (2) policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices; (3) mentor/mentee responsibilities and relationships; (4) collaborative research including collaborations with industry; (5) peer review; (6) data acquisition and laboratory tools, and management, sharing and ownership; (7) research misconduct and policies for handling misconduct; (8) responsible authorship and publication; (9) the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research. Provides advanced consideration of these topics and illustrates how to implement these responsible conduct and ethical considerations into actual grant- and career-related documents.

**Requisites:** OBS&GYN 955, PHARMACY 800, NURSING 802, MICROBIO 901, or COMP BIO/PATH-BIO 812 (or SURG SCI 812 prior to Spring 2025)

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Be knowledgeable of the ethics and philosophies that shape our understandings of the responsible conduct of biomedical research

Audience: Graduate

2. Understand and utilize some best practices in the responsible conduct of biomedical research

Audience: Graduate

3. Be aware of mechanisms and processes available to UW-Madison graduate students to help ensure the practice of the responsible conduct of biomedical research

Audience: Graduate

4. Obtain a more comprehensive understanding of the responsibilities, requirements, monitoring, and reassurances involved in successful contemporary biomedical scientific research and how they are used in planning for or applying for grant support, as well as in reporting the progress made in grant-funded studies

Audience: Graduate

**OBS&GYN 990 – RESEARCH**

1-10 credits.

Research supervised by individual faculty members.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Exhibit a broad understanding of endocrinology and reproduction

Audience: Graduate

2. Conduct thesis-related research projects using a variety of approaches under the guidance of the primary faculty advisor

Audience: Graduate

3. Think critically to address research challenges

Audience: Graduate

4. Exhibit and foster professional and ethical conduct in their research

Audience: Graduate