

# PHARMACY INTEGRATED SCIENCES (PHARMIS)

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## PHARMIS 110 Foundations I (14.5 Units)

Offered In: Summer

*Instructor(s):* Yessica Gomez, Tristan Storm

**Prerequisite(s):** none

**Restrictions:** restricted to 1st year Pharm.D. students

**Activities:** Lecture

Foundations I is an integrated course that provides foundational concepts which will serve as the basis for content that will be taught in all subsequent preclinical courses. The content of this course spans all levels of pharmacy practice including the therapeutic sciences, health care policy and management, and evidence-based health care. A key emphasis of this course is to lay the foundation for the development of compassionate critical thinkers and transformative leaders in healthcare.

**School:** Pharmacy

**Department:** Pharmaceutical Chemistry

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** Yes

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## PHARMIS 111 Cardiovascular Science & Therapeutics (11.5 Units)

Offered In: Fall

*Instructor(s):* Jaekyu Shin

**Prerequisite(s):** None

**Restrictions:** This course is restricted to pharmacy students.

**Activities:** Lecture, Workshop

This Cardiovascular Integrated Theme course focuses on the medical treatment of 4 cardiovascular diseases (ischemic heart disease, dyslipidemia, heart failure, and arrhythmias) by integrating related basic and clinical sciences as well as behavioral/social/administrative sciences. It also explores knowledge gap in inquiry classes. The course concludes with a Synthesis week for reflection, exploration of career-options, and integration with the Foundations I course content.

**School:** Pharmacy

**Department:** Clinical Pharmacy

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** No

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## **PHARMIS 112 Respiratory Science & Therapeutics (9.5 Units)**

Offered In: Winter

*Instructor(s):* Yessica Gomez

**Prerequisite(s):** None

**Restrictions:** Restricted to 1st-year PharmD students

**Activities:** Lecture

This is an integrated course focused on pharmacologic/non-pharmacologic approaches to tobacco cessation, medical treatment of 5 common diseases, and conditions involving the respiratory system.

This is done by integrating related basic, clinical, and behavioral/social/administrative sciences. It also explores knowledge gaps in inquiry classes. The course concludes with a Synthesis week for reflection, exploration of career-options, and integration with previous course content.

**School:** Pharmacy

**Department:** Pharmaceutical Chemistry

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** No

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## **PHARMIS 113 Renal Science and Therapeutics (6 Units)**

Offered In: Spring

*Instructor(s):* Igor Mitrovic, Tristan Storm

**Prerequisite(s):** None

**Restrictions:** PharmD 1st year students.

**Activities:** Lecture, Workshop

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatment of hypertension and chronic kidney disease by integrating related basic and clinical sciences as well as behavioral/social/administrative sciences. It also explores knowledge gaps through inquiry sessions. The course predominantly focuses on the practice of drug dosing adjustments needed in renal dysfunction and renal replacement therapy.

**School:** Pharmacy

**Department:** Bioengineering And Therapeutic Sciences

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** No

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## PHARMIS 114 Gastrointestinal Science and Therapeutics (8 Units)

Offered In: Spring

*Instructor(s):* Cathi Dennehy

**Prerequisite(s):** None

**Restrictions:** 1st year PharmD students.

**Activities:** Lecture

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatments of inflammatory bowel disease, irritable bowel syndrome, liver disease, and gastrointestinal reflux and peptic ulcer disease. Pharmaceutical self-care as well as the basics of nutrition are also introduced in this course. It also explores knowledge gaps through inquiry sessions.

**School:** Pharmacy

**Department:** Pharmaceutical Chemistry

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** No

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## PHARMIS 115 Foundations II (3 Units)

Offered In: Summer

*Instructor(s):* Sharon Youmans

**Prerequisite(s):** None

**Restrictions:** Restricted to second year PharmD students

**Activities:** Lecture

Foundations II is an integrated course that provides foundational concepts which will serve as the basis for content that will be taught in all subsequent preclinical courses for the second year of the PharmD curriculum. The content of this course spans all levels of pharmacy practice including the therapeutic sciences, health care policy and management, and evidence-based health care.

**School:** Pharmacy

**Department:** Bioengineering And Therapeutic Sciences

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** Yes

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## PHARMIS 116 Endocrine Science and Therapeutics (9.5 Units)

Offered In: Summer

*Instructor(s):* Candy Tsourounis

**Prerequisite(s):** None

**Restrictions:** Restricted to second year PharmD students

**Activities:** Lecture

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatments of diabetes, thyroid and adrenal disorders. Pharmaceutical self-care are also introduced in this course. It also explores knowledge gaps through inquiry sessions.

**School:** Pharmacy

**Department:** Pharmaceutical Chemistry

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** Yes

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

## PHARMIS 117 Neuroscience and Therapeutics (14.5 Units)

Offered In: Fall

*Instructor(s):* Stephanie Hsia, Rupa Tuan

**Prerequisite(s):** None

**Restrictions:** Limited to second year PharmD students

**Activities:** Lecture

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatments of stroke, epilepsy, pain insomnia, anxiety disorders, major depressive disorder, schizophrenia, Alzheimers disease, Parkinsons disease, and alcohol/opioid/substance use disorders. It also explores knowledge gaps through inquiry sessions.

**School:** Pharmacy

**Department:** Bioengineering And Therapeutic Sciences

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** Yes

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No

**Repeat course for credit?** No

**PHARMIS 118 Oncology Science and Therapeutics (5.5 Units)**

Offered In: Winter

*Instructor(s):* Janel Long-Boyle**Prerequisite(s):** None**Restrictions:** Limited to second year PharmD students**Activities:** Lecture

This integrated theme course focuses on the role of the clinical pharmacist in the treatment of a patient requiring chemotherapy or immunotherapy as treatment (malignant and non-malignant disease). It also explores knowledge gaps through inquiry sessions.

**School:** Pharmacy**Department:** Pharmaceutical Chemistry**May the student choose the instructor for this course?** No**Does enrollment in this course require instructor approval?** Yes**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)**Graduate Division course:** No**Is this a web-based online course?** No**Is this an Interprofessional Education (IPE) course?** No**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No**Repeat course for credit?** No**PHARMIS 119 Infectious Disease Science and Therapeutics (8 Units)**

Offered In: Winter

*Instructor(s):* Conan MacDougall**Prerequisite(s):** None**Restrictions:** Limited to second year PharmD students**Activities:** Lecture

This integrated theme course focuses on antimicrobial regimen selection, antimicrobial stewardship, and the pharmaceutical interventions available in the treatment of respiratory tract infections, urinary tract infections, skin and soft tissue infections, fungal infections, CNS infections, GI infections, sepsis and septic shock, HIV infection, viral hepatitis, viral infections, and tuberculosis. It also explores knowledge gaps through inquiry sessions.

**School:** Pharmacy**Department:** Bioengineering And Therapeutic Sciences**May the student choose the instructor for this course?** No**Does enrollment in this course require instructor approval?** Yes**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)**Graduate Division course:** No**Is this a web-based online course?** No**Is this an Interprofessional Education (IPE) course?** No**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No**Repeat course for credit?** No**PHARMIS 120A Discovery Groups Research Block (5 Units)**

Offered In: Spring

*Instructor(s):* Fran Aweeka**Prerequisite(s):** None.**Restrictions:** Restricted to second year PharmD students**Activities:** Project

This course takes place during a concentrated 5 week period where students will focus on data collection and interpretation to address the scientific aims for their discovery projects. Projects are primarily done as team projects and students will have completed several 3-hour development sessions with their faculty advisors prior to this 5 week period. Weekly research progress meetings will be held either in person or online at the discretion of the faculty research advisor.

**School:** Pharmacy**Department:** Clinical Pharmacy**May the student choose the instructor for this course?** No**Does enrollment in this course require instructor approval?** No**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)**Graduate Division course:** No**Is this a web-based online course?** No**Is this an Interprofessional Education (IPE) course?** No**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No**Repeat course for credit?** No**PHARMIS 120B Intensive Discovery Research Project (12 Units)**

Offered In: Spring

*Instructor(s):* Fran Aweeka**Prerequisite(s):** None.**Restrictions:** Restricted to 2nd year PharmD students**Activities:** Project

This course is taking place during a concentrated 11 week period where students will focus on data collection and interpretation to address the scientific aims for their Discovery Projects. Projects are done individually and students will have completed several 3-hour development sessions with their faculty advisors prior to this 11 week period.

**School:** Pharmacy**Department:** Clinical Pharmacy**May the student choose the instructor for this course?** No**Does enrollment in this course require instructor approval?** Yes**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)**Graduate Division course:** No**Is this a web-based online course?** No**Is this an Interprofessional Education (IPE) course?** No**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** No**Repeat course for credit?** No

## PHARMIS 121 Discovery Project Final Analysis and Completion (2 Units)

Offered In: Spring

*Instructor(s):* Fran Aweeka

**Prerequisite(s):** None.

**Restrictions:** Restricted to 3rd year PharmD students

**Activities:** Project

This course provides students time to finalize data analysis for their Discovery Projects, write their manuscripts/reports & prepare their presentations. Students are responsible for working independently and/or with their Discovery Project groups to set up meetings with research advisors in order to complete work on their projects & final presentations. Students give oral presentations describing their Discovery Projects during the week after their last spring APPE rotation & before graduation.

**School:** Pharmacy

**Department:** Clinical Pharmacy

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** No

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD)**

**enroll in this course?** No

**Repeat course for credit?** No

## PHARMIS 122 Inquiry Immersion 1 (2.5 Units)

Offered In: Winter

*Instructor(s):* Joanne Chun

**Prerequisite(s):** none

**Restrictions:** 1st year pharmacy students

**Activities:** Lecture, Independent Study

This Inquiry Immersion course within the Bridges Curriculum is a two-week block that includes foundational didactics, a selective mini-course, and scholarship skill-building.

**School:** Pharmacy

**Department:** Bioengineering And Therapeutic Sciences

**May the student choose the instructor for this course?** No

**Does enrollment in this course require instructor approval?** No

**Course Grading Convention:** P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** No

**Is this a web-based online course?** No

**Is this an Interprofessional Education (IPE) course?** No

**May students in the Graduate Division (i.e. pursuing Master or PhD)**

**enroll in this course?** No

**Repeat course for credit?** No