

**The Ohio State University**  
**College of Pharmacy**  
**Drug Discovery Certificate Types 1a & 2**

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Undergraduate Advising  
College of Pharmacy  
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Website:

This 15 -credit hour Drug Discovery Certificate equips students with specialized knowledge and problem-solving skills in drug discovery. The program bridges theory and practice for undergraduates and post-baccalaureate students who desire to work in pharmaceutical or biotech industries. Designed for both science and non-science majors, it promotes understanding of the drug discovery process while strengthening communication and collaboration skills between distinct disciplines.

**Required Core Courses (9-10 credits)**

- **PHR 2530:** Introduction to Pharmaceutical Science Research (2)
- **PHR4000:** Molecules to Medicines (5) **OR** **PHR 2500:** Drug Discovery, Development & Delivery (3) **AND** **PHR 2010:** Pharmacology: How Drugs Work (3)
- **PHR 4700:** Pharmaceutical Science Capstone Experience (2)

**Elective Courses (5-6 credits)**

- **PHR 3400:** Therapeutic Frontiers (2)
- **PHR 3430S** Quest for the Cure (4)
- **PHR 3440:** Drugs that Changed the World (3)
- **PHR 4180H:** CNS Drug Discovery (1)
- **PHR 4210H** Prob Solving in Biomed Chem (2)
- **PHR 4330:** Basic Pharmacokinetics (2)
- **PHR 4402:** Economic Eval of Healthcare and Pharmaceutical Interventions (3)

- **PHR 4420:** Biologics: Transforming Medicine (2)
- **PHR 4430:** GPCR Pharmacology (2)
- **PHR 4440:** Pharm Neuro & Psych Disorders (3)
- **PHR4490:** Survey of AI/ML in Pharm Sci (3)
- **PHR 4610:** Exper Techniques in Drug Disc (4)
- **PHR 4800** Adv Microbial Biotechnology (3)

**Prerequisites:**

- **PHR 4000:** PHR 3200, or equivalent
- **PHR 4210H:** PHR 3200 or equivalent
- **PHR 4330:** MATH 1150
- **PHR 4420:** Coreq - PHR 3200 or equivalent
- **PHR 4330:** Coreq - PHR 3200 or equivalent
- **PHR 4440:** PHR 3200 or equivalent
- **PHR 4610:** PHR 3200 or equivalent
- **PHR 4800:** MICRBIO4100; or BIOCHEM 4511 or 5613; or PHR 3200

**Drug Discovery Certificate guidelines**

Credit hours required: Minimum of 15 credits

Overlap with courses in degree:

- The certificate must be in a different subject than the major
- Max 50% overlap with courses in degree program (i.e. major, minor, other certificate, or GE)
- No more than 6 credit hours can overlap with GE and/or major

Grades Required:

- Minimum C- for a course to be listed on certificate
- Minimum 2.00 cumulative GPA for all certificate course work required

Consult with Pharm Sciences Advisor

- For filling deadlines
- For changes or exceptions to a certificate plan