



Example of a Roadmap for Integrating the Disciplines

“Basic Pharmacology” and “Pathology”

1. Analysis of the Existing Curriculum

Assessment of the current state: Analyze the current pharmacology and pathology courses within the curriculum. Determine the extent to which they are integrated and how they are connected with other disciplines.

Identification of gaps: Identify where and how the linkage between pharmacology and pathology can be improved to achieve a more holistic understanding of medical practice.

2. Defining the Goals of Integration

Learning objectives: Formulate the main goals of integrating pharmacology and pathology, such as improving students' clinical thinking and developing skills for applying theoretical knowledge in practice.

Practical relevance: Determine how the integration of these disciplines will contribute to a better understanding of disease mechanisms and the use of drugs in clinical practice.

3. Development of Interdisciplinary Topics

Creation of common themes: Develop interdisciplinary topics that connect pharmacology and pathology, for example:

- The effects of drugs on physiological processes and their relationship to pathological conditions.
- The impact of chronic diseases on drug pharmacokinetics and pharmacodynamics.

Case-based methods: Use clinical cases that require understanding the interaction between diseases (pathology) and medications (pharmacology), and how this interaction affects patient treatment.

4. Modular Structure of Learning

Integrated learning modules: Develop modules that combine pharmacology and pathology within the study of different organ systems, for example:

- A cardiology module covering both the pathology of cardiovascular diseases and the pharmacology of drugs used for their treatment.

- A neurology module focusing on neurological diseases and the corresponding medications.

Interactive sessions: Incorporate practical classes, simulations, and laboratory work to enhance learning outcomes.

5. Implementation of Innovative Teaching Methods

Interactive learning: Use simulators and virtual laboratories to create clinical scenarios in which students can observe how pharmacology influences pathological changes.

Hybrid formats: Combine lectures and seminars with practical components, as well as online courses and video materials, to facilitate deeper learning of complex topics.

6. Assessment and Feedback

Knowledge assessment: Develop integrated examinations and tests that assess both pathology and pharmacology knowledge in the context of real clinical cases.

Student feedback: Regularly collect student feedback on teaching methods and their perception of the integration of these disciplines.

7. Faculty Professional Development

Faculty training: Organize training sessions for faculty to enable effective work in an interdisciplinary environment and integration of pharmacology and pathology in teaching.

Interdisciplinary collaboration: Establish teaching teams comprising pharmacology and pathology specialists for the joint development of educational materials.

8. Monitoring and Program Adjustment

Ongoing monitoring: Evaluate the outcomes of integration based on students' academic performance and clinical skills.

Program adjustment: Use the collected data to refine the curriculum, introduce new methods, and add learning materials to further improve educational quality.

Indicative Timeline

Weeks 1–3: Analysis of the current curriculum, identification of gaps, and formulation of integration goals.

Weeks 4–6: Development and implementation of interdisciplinary modules; faculty preparation.

Weeks 7–10: Program implementation; collection of feedback from students and faculty.

Week 10+: Evaluation of outcomes and curriculum adjustment.