

COURSE SYLLABUS

INSTRUCTORS:

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TEACHING ASSISTANTS:

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PRE-REQUISITES:

There are no prerequisites for this course. This course is designed to allow participation by everyone, including the general population and scholars, without prior knowledge.

ABOUT THE COURSE:

“Take Your Medicine” is a Massive Open Online Course offered on the edX.org platform and developed by Dr. Janet Walkow at The College of Pharmacy at The University of Texas at Austin. This course was designed to help consumers and scientists understand the process of drug development.

Everyone gets sick. Thanks to medical innovations in the past 50 years, many diseases and conditions have been either mitigated or even cured through medicine. How does a research innovation turn into a therapeutic medicine that health care providers prescribe to patients? This course explores the process, challenges and issues in developing pharmaceutical products. Drug development is a dynamic field where innovation and entrepreneurship are necessary to keep up with health care expectations, strict regulations and tightening development budgets. An overview of drug development, approval, and consumer issues will be presented and discussed in the context of research practices, science, marketing, public welfare and business. Participants from all backgrounds and interest, including scientists, healthcare professionals, entrepreneurs and the general public, are encouraged to participate.

SCHEDULE:

Each week, new content will be released. You will have the freedom to view all material released and take any quizzes, at any time after the content is released. We have not put timelines or restrictions on this course.

TOPICS BY THE WEEK:

The following is an overview of the topics for the course. Each week, new content is released.

Module	Topic
Week 1	Overview & Stages of Drug Development
Module	Course Overview
1.1	Meet the TYM Team Drug Development Phases

Week 1 Module 1.2	Impact of Drug Development on Patient Outcomes The Changing Landscape - where new drugs are being developed Patient Stories Medical Innovations
Week 2 Module 2.1	Drug Discovery Phase The New Drug Pipeline Identity, Screening and Optimization of New Compounds The Fight Against Cancer Discovering the Anthrax Antidote
Week 2 Module 2.2	Preclinical Phase Selecting the appropriate delivery system Developing Inhaled Products Safety and Efficacy Novel Delivery Systems and Repurposing Existing Drugs Pharmacology -Toxicology
Week 3 Module 3.1	Clinical Development of New Drugs Clinical Trial Phase Developing Cancer Therapies Q*A's
Week 3 Module 3.2	New Product Approvals Regulatory Perspectives Patient Story: Testing New Treatments Overcoming the Challenges Post-Market Surveillance
Week 4 Module 4.1	How Drugs are Regulated FDA's Role Monitoring Drug Safety Drug Safety and Risk
Week 4 Module 4.2	Manufacturing Drug Products Testing and Assuring Quality A Manufacturing Executive's Perspective
Week 5 Module 5.1	The Cost of Drugs Why Drug Cost so Much Generics
Week 5 Module 5.2	Counterfeit Medicines Global Counterfeit Drug Threat How to Avoid Counterfeits
Pharm	Personalized Medicine Personalized Medicine Today Diagnostics and Testing Q&A's

Week 6 Module 6.2	Inside the Pharmacy: How Pharmacists are Good for your Health Field Trip: Inside Tarrytown Pharmacy Managing Your Health Role of Pharmacists
Week 7 Module 7.1	Being an Informed Patient Taking Medicine as Directed Patient Story: Following Directions Q&A's
Week 7 Module 7.2	Commercializing Research Innovations Technology Commercialization Pathway Austin Technology Incubator The 8 Steps of Commercialization Q&A's
Week 8 Module 8.1	The Importance of University Research Universities and New Medicines Q&A's Example: Point of Care Diagnostics
Week 8 Module 8.2	Your Role to Better Health Being Informed Patients Talking to Healthcare Providers Over the Counter Products Wrap Up

GRADING: _____

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Each week we will have two forms of questions:

1. *Take Your Medicine Quiz* - these are graded multiple-choice questions based on the material. You will have up to 2 attempts to answer each question.
2. *Know Your Medicine Labs* - these are graded multiple-choice questions that require that you perform research to answer. You will not find the answers in the course content, you will have to go out and search for them!

CERTIFICATION: _____

To receive a certificate for this course, you will need a passing grade of 70%. There are a total of 352 points available; you will pass with a minimum number of 225 points.

NEED HELP OR HAVE A QUESTION? _____

Let us know! Join us in the Troubleshooting forum and we will work to help you solve the issue.