



University
of Dayton

Quality Assurance in Life Science Industries Minor

Description of the Minor

The curriculum was developed by life science industry and government leaders, to prepare students with the skills necessary for a career in the medical instrumentation and pharmaceutical industries. Through the minor students will:

- Gain a strong foundational knowledge of quality assurance as it applies to product development, product validation, and risk analysis in the biomedical and pharmaceutical industries
- Understand the role of quality assurance in directly impacting patient health
- Have an opportunity to gain work experience and develop skills that are directly applicable to the fields of biomedical and pharmaceutical industries.

Questions regarding the Quality Assurance in Life Science Industries Minor?

Email: premed@udayton.edu

Quality Assurance in Life Sciences Core Requirements

MED 401: (3hr)

Global Regulatory and Legal Requirements of Quality

This course will provide an overview of regulations for the pharmaceutical, medical device, biotech, animal health, and consumer goods industries. Students will be introduced to fundamental concepts in the regulations related to clinical trial development, management, ethics, data integrity, data security privacy, change control and validation. This course is a prerequisite for the other MED courses.

MED 402: (3hr)

Product Development Specifications Process and Validation

This course will give students an understanding of the processes used in pharmaceutical, medical device and pharmaceutical industries for the development of new products. Students will learn the scientific principles used in such developments that ensure that products meet quality standards.

MED 403: (3hr)

Risk and Failure Analysis in Quality Science

Through the use of historical risk analysis techniques, such as FMEA Fault Tree, students will analyze a holistic set of data and identify effective corrective and preventative actions. Students will learn and apply principles of failure analysis while on a summer internship.

Additional Required Coursework:

BIO 411: General Microbiology (3hr)

BIO 411L: General Microbiology Laboratory (1hr)

Choose one of the following two courses:

IET 317: Industrial Economic & Financial Analysis (3hr)

BIZ 200: Survey of Business (3hr)



University of Dayton

300 College Park
Dayton, Ohio 45469