



SHORT COURSE

UTS NIBRT: Introduction to Bioprocessing

The advancement of biotechnology has facilitated the innovation of bio-therapeutics addressing current and emerging health concerns.

Gain a comprehensive introduction to key principles and techniques fundamental to bioprocessing, exploring the cutting-edge applications of single-use technology in biopharmaceutical manufacturing.

About this Course

This one-day course featuring National Institute for Bioprocessing Research and Training (NIBRT) curriculum introduces key processing principles and techniques of the biopharmaceutical industry to participants from a non-biopharma background.

This course is designed to expand participants' knowledge and understanding of foundational aspects of bioprocessing including biopharmaceutical manufacturing, upstream and downstream processes, cleanroom operations, and the emerging trend of single-use technologies.

Key Topics Covered

- Introduction to biopharmaceuticals and bioprocessing
- Overview of upstream and downstream operations
- Introduction to single-use technologies in bioprocessing
- Cleanroom classification and contamination control
- UTS Biologics Innovation Facility overview and tour.

Course Structure

The production of biopharmaceuticals is underpinned by key bioprocessing practices which use living cells to obtain a desired product. The design and modification of the bioprocess enables the industrial production of an array of biopharmaceuticals.

This one day course delivers the NIBRT's industry training curriculum to provide participants from a non-biopharma background a solid introduction to key principles and techniques in bioprocessing.

In this course, participants will gain comprehensive knowledge on biopharmaceutical manufacturing, including an introduction to key upstream and downstream processes.

You will also learn the importance of cleanroom operations in a GMP-lite environment, and understand how single-use technologies are facilitating competitive and economical solutions to bioprocessing.

Learning Outcomes



- Demonstrate a fundamental understanding in the biopharmaceutical industry.
- Describe the unit operations in upstream and downstream biopharmaceutical production processes.
- Discuss single-use technology in bioprocessing.
- Understand the need for aseptic processing and environmental monitoring in a cleanroom environment.

Discount:

- An introductory discount of 15% is available for participants enrolling into this short course.
- When signing up for this course, please use the voucher code 'NIBRT15' to apply the discount to your cart.
- Please note that there's a limit of one discount rate per participant.

**Full
Price:
\$1,150**

About the Providers

Biologics Innovation Facility (BIF)

BIF is an Australia-first training and bioprocessing facility based at the University of Technology, Sydney.

BIF aims to drive the development of the biotech industry by offering a platform for innovation in biopharmaceutical research, as well as providing professional training in bioprocessing techniques in a GMP-lite environment.

National Institute of Bioprocessing Research and Training (NIBRT)

NIBRT is a global centre of excellence for training and research in biopharmaceutical manufacturing. NIBRT is located in a world class facility in Dublin, Ireland.

This facility is purpose built to closely replicate a modern bioprocessing plant with state-of-the-art equipment and enables NIBRT to offer the highest quality training and research solutions.

NIBRT's mission is to support the growth and development of all aspects of the biopharmaceutical manufacturing industry.

For more information, email BIF at bif@uts.edu.au

Course Content

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		Lesson Name	Topics Covered
Day 1	AM	Lecture 1 – Introduction to Bioprocessing	<ul style="list-style-type: none"> • Introduction to the Biopharmaceutical Industry • Biopharmaceutical Production Process Overview
		Lecture 2 – Overview of Upstream Operations	<ul style="list-style-type: none"> • Cell Culture and Banking • Cell Culture Processing and Subculture • Process Control Overview
		Lecture 3 – Overview of Downstream Operations	<ul style="list-style-type: none"> • Introduction to Downstream Processing • Removal of Insolubles • Product Concentration • Product Purification • Viral Clearance
	PM	Lecture 4 – Single Use Technologies	<ul style="list-style-type: none"> • Principles and Applications of Disposable Technologies: <ul style="list-style-type: none"> ○ Industry Trends ○ Advantages and Disadvantages • Examples of Disposable Technology: <ul style="list-style-type: none"> ○ Equipment and Components Used • Regulation <ul style="list-style-type: none"> ○ Guidance and Issues
		Lecture 5 - Clean Room Operations	<ul style="list-style-type: none"> • Cleanroom Classification • Consequences of Contamination • Contamination Entry Routes • Examples of Contamination Risks
		Interactive Tour of the Facility	<ul style="list-style-type: none"> • A guided tour hosted by BIF staff showing trainees the different rooms and capabilities housed within the Biologics Innovation Facility