University of Technology, Jamaica
College of Health Sciences
School of Pharmacy

B.Sc. PHARMACEUTICAL TECHNOLOGY

Course Description

The Bachelor of Science in Pharmaceutical Technology (B.Sc. Pharm. Tech.) course of study is designed to equip you with the specialised knowledge for the design, formulation, manufacture, quality assurance, regulatory activities necessary for manufacturing of safe, effective and acceptable pharmaceutical/cosmetics/nutraceutical products.

Duration
4 years

Number of Credits
136

Entry Requirements
Applicants to the course are required to have a minimum of five (5) CSEC/GCE O-Level passes including English Language, Mathematics, Chemistry, General Biology and one (1) other subject, preferably a technical or science related subject, (Physics would be an asset), plus A-level or CAPE Units 1 & 2 passes in Chemistry and one (1) other subject; either Mathematics or Physics. A foreign language would be an asset.

Any other equivalent qualifications

COURSE OF STUDY OBJECTIVES

On completion of the course of study, the graduate of the Bachelor of Science in Pharmaceutical Technology course of study at the University of Technology, Jamaica should be able to:

- Process written instructions accurately and follow Standard Operation Procedures.
- Comply with rules, regulations and standards in accordance with local and international manufacturing and laboratory guidelines.
- Demonstrate the ability to use aseptic techniques in the processing of sterile products.
- Demonstrate good oral and written communication skills.
- Demonstrate a working knowledge of Spanish.
- Apply modern and traditional approaches to the design of drug and non-drug delivery system.
- Demonstrate knowledge of processing techniques applicable to the pharmaceutical and non-pharmaceutical industries.
- Analyse validation reports.
- Conduct hazard analysis and other occupational threats.
- Demonstrate a working knowledge of analytical instruments and their relevant software.
- Interpret and report data from pharmaceutical processes using appropriate software and information technology (IT) tools.
- Demonstrate competences in production and resource management.
- Appreciate the relevance of pharmaceutical technology to national development and health outcomes.

UNIVERSITY OF TECHNOLOGY, JAMAICA
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PHARMACY

BSc. in Pharmaceutical Technology
Course Structure

Level 1					
		CONTACT HOURS/WEEK			
Module Codes	Module	Lecture Hours	Tutorial Hours	Lab Hours	Total Credits
Semester 1					
COM1020	Academic Writing 1		3		3
MAT1047	College Mathematics 1B	2	2		4
MIB1001	Microbiology	2		4	3
PSY1002	Introduction to Psychology	3			3
CHY1005	Applied Organic Chemistry	2		3	3
CSP1001	Community Service Project	1			1
	Sub-Total	10	5	7	**17**

Semester 2					
		CONTACT HOURS/WEEK			
Module Codes	Module	Lecture Hours	Tutorial Hours	Lab Hours	Total Credits
Semester 2					
MAT2003	Calculus	2	1		3
INT1001	Information Technology	1	1	3	3
PHS1003	Medical Physics	2	1	3	4
PHA1001	Pharmaceutical Calculation	3	1		4
SPA1005	Spanish Level 1	2		3	3
	Sub-Total	10	4	9	**17**

TOTAL CREDITS FOR LEVEL 1=34 credits

Level 2					
Module Codes	Module	CONTACT HOURS/WEEK			Total Credits
		Lecture Hours	Tutorial Hours	Lab Hours	
Semester 1					
COM2014	Academic Writing 2		3		3
PHA2001	Pharmacognosy	2		3	3
PHA2002A	Pharmaceutics Practical 1A- Lab		1	3	2
PHA2002B	Pharmaceutics 1B Theory	3			3
SPA2010	Spanish Level 2	2		3	3
CHE 1001	Elemental Principles of Chemical Engineering	2	1	3	4
	Sub-Total	**9**	**5**	**12**	**18**

Semester 2					
Module Codes	Module	CONTACT HOURS/WEEK			Total Credits
		Lecture Hours	Tutorial Hours	Lab Hours	
Semester 2					
CHY3022	Analytical Chemistry	3		3	4
PHA2003A	Pharmaceutics 2A-Lab		1	3	2
PHA2003B	Pharmaceutics 2B- Theory	3			3
SPA3006	Spanish Level 3	2		3	3
PHA4006	Sterile Technology	2			2
	University Elective	3			3
	Sub-Total	**13**	**1**	**9**	**17**

TOTAL CREDITS FOR LEVEL 2 =35 credits

Level 3					
Module Codes	**Module**	**CONTACT HOURS/WEEK**			**Total Credits**
		Lecture Hours	**Tutorial Hours**	**Lab Hours**	
Semester 1					
PHT3000	Separation Technique and Pharmaceutical Analysis	3		3	4
PHT3001	Pharmaceutical Technology I: Processing Technology	2		3	3
PHA3003	Biopharmaceutics/Basic Pharmacokinetics	2			2
PHS1005	Engineering Physics	3		3	4
RES3001	Research Methodology	3			3
HEA3011	Project Seminar	0			0
SPA4002	Spanish Level 4	2		3	3
	Sub-Total	**16**	**0**	**12**	**19**
Semester 2					
Module Codes	**Module**	**CONTACT HOURS/WEEK**			**Total Credits**
		Lecture Hours	**Tutorial Hours**	**Lab Hours**	
PHT3002	Pharmaceutical Microbiology	2		3	3
PHT3003	Pharmaceutical Biotechnology	2		3	3
PHA1004	Pharmacology and Drug Information[1]	4			4
PHT3004	Pharmaceutical Technology II: Dispersed Systems	2		3	3
STA3001	Biostatistics	3			3
PHA3025	Policies and Regulations in the Pharmaceutical Manufacturing Industry	3			3
	Sub-Total	**15**	**1**	**9**	**18**
Semester 3 (Summer Session)					
PHT3005	Industry Experience	200 hrs (5 weeks)			2.5

TOTAL CREDITS FOR LEVEL 3 =39.5 credits

[1]Pharmacology and Drug Information will be done with the Pharmacy Technicians.

Level 4						
Module Codes	**Module**		**CONTACT HOURS/WEEK**			**Total Credits**
			Lecture Hours	**Tutorial Hours**	**Lab Hours**	
Semester 1						
PHT4000	Pharmaceutical Technology III: Dosage Form Design and Development		2		3	3
CHE4027	Pharmaceutical Process Principles		1		3	2
POM3001	Introduction to Production & Operations		3			3
ACC4031	Financial Management Accounting		3			3
PHT4001	Good Manufacturing Practices		2			2
PHA4024	Entrepreneurship Seminar		0			
Electives*	PHT4002	Veterinary Pharmaceuticals	2			2
	PHT4003	Cosmetic Technology	2			2
	PHA4007	Herbal & Complementary Medicine	2			2
	Sub-Total		**15**	**0**	**6**	**17**
Semester 2						
Module Codes	**Module**		**CONTACT HOURS/WEEK**			**Total Credits**
			Lecture Hours	**Tutorial Hours**	**Lab Hours**	
PHT4004	Pharmaceutical Industry Externship		600 Experiential hours – in Industry			7.5
PRJ4010	Final Year Project					3
	Sub-Total		**0**	**0**	**0**	**10.5**

TOTAL CREDITS FOR LEVEL 4 =27.5 credits

TOTAL CREDITS FOR COURSE OF STUDY: 136

***Electives: Students will complete two (2) electives.**

Note: Students without CXC Physics must do the module: Basic Physics (PHS0005). This module is a "0" credit module and is NOT to be selected online. Students are to register for this module by UTech Academy, Bay 2, TIC building. Record shows that Student Loan Bureau will NOT pay for this module as it is seen as a pre-requisite module.