## M.S. IN COSMETIC SCIENCE AND FORMULATION DESIGN

Code	Title	Hours
Required Courses	s	
PHPR 5800	Cosmetic Ingredients and Product Forms	3
PHPR 5820	Cosmetic Trends and Claims	3
PHPR 5830	Cosmetic Regulations, Ethics, and Practices	3
PHPR 5840	Formulating Skin and Sun Care Products	3
PHPR 5850	Formulating Makeup, Hair Care, and Oral Care Products	3
PHPR 6710	Skin Delivery of Cosmetic Actives	3
PHPR 6770	Cosmetic Science Project	3
PHCL 6710	Fundamentals of Biostatistics and Research Analysis	3
Electives		6
PHPR 6720	Global Cosmetic Regulations	
PHPR 6730	Sustainable Product Development	
PHPR 6740	Skin Microbiome	
PHPR 6750	Cosmetic Science Formulation Lab	
Total Hours		

## Combined Bachelor's to master's - Cosmetic Science and Formulation Design, BSPS to MS in Cosmetic Science and Formulation Design

Undergraduate students accepted to the University of Toledo's Cosmetic Science and Formulation Design Pipeline Program option will be admitted to the MS in Cosmetic Science and Formulation Design and allowed to complete up to three graduate level classes (nine credit hours) during their final academic year of undergraduate studies. Students admitted into the pipeline program must apply for admission to the College of Graduate Studies for the semester that they intend to matriculate. They will then continue into the graduate program upon completion of the undergraduate degree requirements. The graduate coursework (up to nine hours) may be applied to completion of both undergraduate and graduate degree requirements. It will be the joint responsibility of the faculty and administrators in the undergraduate and graduate programs to supervise students admitted to the combined program option, to ensure that the limit of nine hours taken as an undergraduate is strictly enforced, and to request that the College of Graduate Studies change their matriculation from Undergraduate to Graduate when they meet all undergraduate degree requirements.

The following provisions apply for classes taken for graduate credit:
1) graduate classes taken at The University of Toledo only after the student is accepted in the program, 2)PHPR 5800 Cosmetic Ingredients and Product Forms, PHPR 5820 Cosmetic Trends and Claims, and PHPR 5830 Cosmetic Regulations, Ethics, and Practices may be included in the approved nine semester hours of graduate credit taken as an undergraduate. Students interested in the combined program must submit a graduate admission application to the College of Graduate Studies.

## MS Cosmetic Science and Formulation Design

First Year		
First Term		Hours
PHPR 5800	Cosmetic Ingredients and Product Forms	3
PHPR 5830	Cosmetic Regulations, Ethics, and Practices	3
	Hours	6
Second Term		
PHPR 5850	Formulating Makeup, Hair Care, and Oral Care Products	3
PHPR 5820	Cosmetic Trends and Claims	3
	Hours	6
Third Term		
PHCL 6710	Fundamentals of Biostatistics and Research Analysis	3
PHPR 5840	Formulating Skin and Sun Care Products	3
	Hours	6
Second Year		
First Term		
PHPR 6710	Skin Delivery of Cosmetic Actives	3
Elective		3
	Hours	6
Second Term		
PHPR 6770	Cosmetic Science Project	3
Elective		3
	Hours	6
	Total Hours	30

- 1. Demonstrate knowledge of ingredient function, physicochemical and biological properties, and proper ingredient selection to support product claims.
- 2. Interpret current and relevant regulations, and guidelines, ethical standards, and peer-reviewed scientific literature to assess the quality, efficacy, and safety of cosmetics and personal care products.
- 3. Design cosmetic and personal care products that are regulatory compliant globally and meet consumers' needs.
- 4. Define and appropriately apply advanced pharmaceutical and cosmetic science terminology and abbreviations that are encountered in the practice of cosmetic science.
- 5. Apply pharmaceutical sciences and cosmetic science knowledge and skills to evaluate and solve problems.

