VI. Final Proposed Checklist

BACHELOR OF SCIENCE IN CHEMISTRY

College of Science

UC Approval:
148th UPD UC : 28 May 2018

Proposed date of effectivity:
1st Semester of AY 2018-2019

FIRST YEAR

1st Semester	17 units
GE 1 ENG 13	3
GE 2 KAS 1	3
GE 3 ARTS 1	3
Chem 16	3
Chem 16.1	2
Geol 11	3
PE	(2)
NSTP[1]	(3)

2nd Semester	17 units
GE 4 SPEECH 30	3
Chem 17	3
Chem 17.1	2
Math 21*	4
BIO 11**	3
BIO 11.1**	2
PE	(2)
NSTP[1]	(3)

SECOND YEAR

1st Semester	17 units
Chem 28	3
Chem 33	3
Chem 101.1	3
Math 22	4
Physics 71	4
PE	(2)
NSTP[1]	(3)

2nd Semester	16 units
GE 5 Philo 1	3
Chem 34	3
Chem 123	3
Chem 101.2	3
Chem 105	3
Physics 71.1	1
PE	(2)
NSTP[1]	(3)

THIRD YEAR

1st Semester	15 units
GE 6 FIL 40	3
Chem 145	3
Chem 145.1	1
Chem 153	3
Physics 72	4
Physics 72.1	1

2nd Semester	15 units
GE 7 Soc Sci 1	3
Chem 146	3
Chem 112	3
Chem 102.1	3
Chem 154	3

MIDYEAR	3 units
Chem 197	3

FOURTH YEAR

1st Semester	15-17 units
Chem 113	3
Chem 102.2	3
Chem 156	3
Chem 196	1
Chem 200	2
Elective[2]	3-5

2nd Semester	17-19 units
GE 8 STS 1	3
GE 9 Elective	3
GE 10 Elective	3
PI 100	3
Chem 200	2
Elective[2]	3-5

[1] Choice of CMT (may be taken starting first year) or CWTS (may be taken starting second year). Note: As a requirement for graduation, all students are required to take six (6) units in one of the National Service Training Program (NSTP) components: Civic Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officers' Training Corps Military Science (ROTC Mil Sci). These are offered by UPD.

[2]Two (2) course elective equivalent to a minimum of six (6) units, at least 3 units of which are science electives

*All students required to take Math 21 must have passed any of the following: (1) Pre-Calculus from the STEM or equivalent strand of K-12; (2) the Validation Examination for Math 20 (Pre-Calculus: Functions and their Graphs) administered by the UPD Institute of Mathematics; or (3) Math 20 as a non-credit course.

** Subject to approval

The University regularly reviews course curricula and may revise them. Students admitted into this program shall follow the existing curriculum until such time that a new curriculum replacing it has been duly approved for implementation. All courses prescribed and taken under this existing curriculum shall be credited under the new curriculum.

The list of science electives includes courses where students satisfy the prerequisites.

COLLEGE OF SCIENCE

Chemistry courses. Chem 125 Basic Electronics for Chemical Instrumentation; Chemistry Graduate Courses

Biology courses: BIO 12 Fundamentals of Biology II; BIO 101 Plant Morphoanatomy; BIO 102 Comparative Vertebrate Anatomy; BIO 111 *Pychology,* Taxonomy, morphology and phylogeny of algae; BIO 112 Mycology; BIO 114 Mosses, Hepatics & Ferns; BIO 115 Taxonomy of Angiosperms; BIO 116 Invertebrate Biology; BIO 116.1 Invertebrate Biology Laboratory; BIO 118 Insect Biology; BIO 120 General Microbiology; BIO 150 Fundamental of Cell and Molecular Biology; BIO 180 Statistical Methods in Biology

Geology courses: Geol 11.1 Laboratory in Principles of Geology; Geol 40 Elementary Mineralogy

Marine Science courses: MS 101 Oceans; MS 102 The Marine Sciences; MS 220 Chemical Oceanography; MS 221 Marine Geochemistry; MS 222 Chemistry of Marine Coastal Environment; MS 226 Marine Pollution Chemistry; MS 226.1 Marine Pollution Chemistry Laboratory

Mathematics courses: Math 40 Linear Algebra; Math 162 Theory of Interest; *Math* 203 Matrices and Applications; Math 258 Combinatorial Mathematics

Meteorology courses: Meteo 101 General Meteorology; Meteo 224 Air Pollution Meteorology

Materials Science and Engineering courses: MSE 201 Fundamentals of Materials Science and Engineering; MSE 211 Laboratory Module in Transmitted Light Microscopy; MSE 212 Laboratory Module in Mineralogy; MSE 214 Laboratory Module in Vacuum Technologies and Thin Film Deposition; MSE 215 Laboratory Module in Electronic and Magnetic Measurements; MSE 216 Laboratory Module in Ceramics Processing and Characterization; MSE 231 Thermodynamics of

Materials; MSE 233 Kinetics of Materials; MSE 241 Physics of Solids; MSE 266 Polymer Materials; MSE 271 Physics of Liquid Crystals

Molecular Biology and Biotechnnology courses: MBB 10 Introduction to Molecular Biology; MBB 110 Fundamentals of Molecular Microbiology; MBB 121 Fundamentals of Cell and Tissue Culture; MBB 125 Molecular Physiology of Eukaryotic Systems; MBB 140 Molecular Genetics

Environmental Science courses: Env Sci 201 Fundamentals of Environmental Science I; Env Sci 202 Fundamentals of Environmental Science II; Env Sci 211 Computational Methods in Environmental Science; Env Sci 212 Environmental Problems and Issues. *Physics courses:* Physics 73 Elementary Physics III, Physics 73.1 Elementary Physics III Laboratory

COLLEGE OF ENGINEERING

Chemical Engineering courses: ChE 2 Elementary Chemical Engineering; ChE 100 Introduction to Chemical Engineering Profession

Civil Engineering courses: CE 21 Engineering Statistics

Engineering Sciences courses: ES 1 Engineering Drawing

Materials Engineering courses: MatE 10 Engineering Materials; MatE 11 Fundamentals of Materials Engineering I; MatE 101 Thermodynamics of Materials; MatE 105 Analytical Techniques in Materials Engineering; MatE 105.1Analytical Techniques in Materials Engineering Lab; MatE 131 Polymer Materials

Metallurgical Engineering courses. MetE 11 Principles of Metallurgy; MetE 12 Metallurgical Measurement; MetE 13 Methods of Metallurgical Analysis; MetE 14 Metallurgical Experimental Design; MetE 17 Metallurgical Thermodynamics; MetE 18 Metallurgical Thermodynamics Laboratory; MetE 120 Ore Dressing; MetE 121 Mineral Processing I

Industrial Engineering courses: IE 3 Engineering to Industrial Engineering; IE 21 Industrial Materials and Processes.

Information Technology: IT 100 Introduction to Information Technology; IT 110 Information System in Enterprises

COLLEGE OF HOME ECONOMICS.

Foods and Nutrition courses. FN 11 Principles of Food Preparation; FN 14 Physiological Aspect of Nutrition; FN 15 Principles of Nutrition; FN 16 Nutrition for at-Risk Groups; FN 24 Dietary Patterns

Food Science courses: FS106 General Microbiology; FS 116 Food Microbiology; FS 125 Food Chemistry; FS 126 Food Biotechnology; FS 127 Food Processing I; FS 135 Physico-Chemical Analysis of Foods; FS 140 Waste Management in Food Processing

SCHOOL OF STATISTICS:

Stat 101 Elementary Statistics

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