PharmD Professional Division Requirements

PPT: Pathophysiology and Pharmacotherapy
PPD: Professional Practice Development
PHCAD: Pharmacy Health Care Administration
IPPE: Introductory Pharmacy Practice Experience
APPE: Advanced Pharmacy Practice Experience

P1 Year

Fall Semester
MBC 3310 Medicinal Chemistry I ................. 2
MBC 3550 Physiological Chemistry I.......... 3
PHCL 3700 Pharmacology I ......................... 3
PHPR 3130 PPT-1 ........................................... 2
PHPR 3070 PPD-1 ........................................... 4
PHPR 3260 PHCAD-1 ..................................... 2
PHPR 3920 IPPE-1 ........................................... 1

Spring Semester
MBC 3320  Medicinal Chemistry II ............... 2
MBC 3560 Physiological Chemistry II .......... 3
MBC 3800 Microbiology & Immunology ....... 3
MBC 3850 Microbiology & Immunology Lab... 1
PHCL 3720 Pharmacology II ......................... 2
PHPR 3140 PPT-2 ........................................... 2
PHPR 3080 PPD-2 ........................................... 4
PHPR 3930 IPPE-2 ........................................... 1

P2 Year

Fall Semester
PHPR 4160 Pharmacokinetics ..................... 3
PHCL 4700 Pharmacology III ....................... 2
PHPR 4070 PPD-3 ........................................... 3
PHPR 4130 PPT-3 ........................................... 4
PHPR 4920 IPPE-3 ........................................... 1
Undergraduate Professional Electives* 3

Spring Semester
MBC 4300 Medicinal Chemistry III .............. 2
PHCL 4720 Pharmacology IV ........................ 2
PHPR 4330 Research Design & Drug Literature Eval I 2
PHPR 4080 PPD-4 ........................................... 3
PHPR 4140 PPT-4 ........................................... 4
PHPR 4520 PHCAD-2 ..................................... 2
PHPR 4930 IPPE-4 ........................................... 1

* A total of 3 credit hours of Undergraduate Professional Electives is required

Note: At the end of the P2 year, students are candidates for a B.S. degree in pharmaceutical sciences leading toward a Pharm.D. degree.
**P3 Year**

*Summer Semester Immediately Following P2 Year*

- PHPR 6120  PPT-5 ............................................... 3
- Graduate Professional Electives* ....................... 2, 3 or 5

**Fall Semester**

- MBC  5300  Molecular Basis of Cancer Chemotherapy  1
- PHPR  5300  Design & Applications of Cancer Chemo.  1
- PHPR  6070  PPD-5............................................... 3
- PHPR  6130  PPT-6............................................... 4
- PHPR  6160  Advanced Applied Pharmacokinetics3
- PHPR  6260  PHCAD-3......................................... 1
- PHPR  6610  Seminar I............................. 1
- PHPR  6340  Research Design & Drug Literature Eval 2  2
- PHPR  6920  IPPE-5.............................................. 1

Graduate Professional Electives* ............................... 2-3

**Spring Semester**

- MBC  6320  Neurological & Psychiatric Drugs ..... 1
- PHCL  6320  Neurological & Psychiatric Pharmacology  1
- PHPR  6080  PPD-6............................................... 3
- PHPR  6140  PPT-7............................................... 4
- PHPR  6250  Self-care ........................................... 4
- PHPR  6280  PHCAD-4......................................... 2
- PHPR  6310  Jurisprudence & Ethics .................... 1

Graduate Professional Electives* ............................... 2-3

* A total of 5 credit hours of Graduate Professional Electives is required

**P4 Year**

*Fall Semester:*

- PHPR  8630  Longitudinal Drug Information (Fall or Spring)  2
- PHPR  8940:001 Advanced Pharmacy Practice Experience I  4
- PHPR  8940:002 Advanced Pharmacy Practice Experience II  4
- PHPR  8940:003 Advanced Pharmacy Practice Experience III  4
- PHPR  8940:004 Advanced Pharmacy Practice Experience IV  4

Option of graduate elective (if not completed in P3)
By DL if not in PHPR 8620 Seminar II

*Spring Semester*

- PHPR  8630  Longitudinal Drug Information (Fall or Spring)  2
- PHPR  8940:005 Advanced Pharmacy Practice Experience V  4
- PHPR  8940:006 Advanced Pharmacy Practice Experience VI  4
- PHPR  8940:007 Advanced Pharmacy Practice Experience VII  4
- PHPR  8940:008 Advanced Pharmacy Practice Experience VIII  4

Option of graduate elective (if not completed in P3)
By DL if not in PHPR 8620 Seminar II

Note: At the end of the P4 year, students are candidates for a Pharm.D. degree.
Pharm.D. Undergraduate Professional Electives

The following is a list of recommended undergraduate professional electives. A total of 3 credit hours of undergraduate professional electives is required. Other electives may be chosen with the written approval of the CPPS Curriculum Committee. To count towards professional elective requirements, a grade of C or better must be earned in a course. Credit for courses taken outside The University of Toledo can be counted towards professional elective credit requirements if a grade of C or better is earned, but grades will not be factored into CPPS or University of Toledo GPA calculations.

CPPS:

Research with individual faculty (must be arranged before registering)
MBC 4910......Problems in Biomedical Chemistry   1-3
MBC 4900 Honors Seminar Med & Biol Chem.,... 1-3
MBC 4960 Honors Thesis Med & Biol Chem. 2-5
PHCL 4910 Problems in Pharmacology ........1-3
PHCL 4900 Honors Seminar in Pharmacology1-3
PHCL 4960 Honors Thesis in Pharmacology 2-5
PHPR 3670 Chemical Dependency & The Pharmacist 3
PHPR 4590 Readings Access & Cultural Competence 2
PHPR 4640 Cosmetic Science Essentials ........3
PHPR 4910 Pharmacy Practice Problems...........1-5
PHPR 4900 Honors Seminar in Pharmacy Practice1-3
PHPR 4960 Honors Thesis in Pharmacy Practice.. 2-5
PHCL 4730 Toxicology I.................................. 3
PHCL 4750 Toxicology II ................................ 3
PHCL 4630 Cancer Chemotherapy ................... 3
MBC 4710 Targeted Drug Design...................... 3
MBC 4710 is only for students seeking double B.S.P.S. major.

Others:

BIOL 3010 Molecular Genetics ..................... 3
BIOL 3210 Human Nutrition ........................... 3
BIOL 4110 Human Genetics ............................ 3
BIOL 4210 Molecular Basis of Disease............ 3
BUAD 2040 Financial Accounting Information 3
BUAD 2050 Accounting Business Decision Making 3
BUAD 3010 Principles of Marketing ............... 3
BUAD 3030 Manage. & Behave. Processing Orgs.   3
BUAD 3040 Principles of Financial Management... 3
BUAD 3470 Legal & Ethical Environment of Business 3
COUN 3140 Substance Abuse Prevention and
      Community Programming ................... 3
HCAR 4510 Medical and Legal Aspects of Healthcare 3
HEAL 2800 Principles of Nutrition ................... 3
HEAL 3300 Drug Awareness ............................ 3
HEAL 3600 Prevention and Control of Disease 3
HEAL 4100 Health Behavior ............................ 3
HEAL 4400 Health Problems of Youth............. 3
HEAL 4560 Health Problems of Aging ............ 3
HEAL 4700 Nutritional Science ....................... 3
HEAL 4750 Obesity and Eating Disorders........ 3
MATH 2600 or 2640 ..................................... Statistics 3
PHIL 3310 Science and Society ...................... 3
PHIL 3370 Medical Ethics .............................. 3
PSC 4330 Health Care Policy .......................... 3
Pharm.D. Professional Electives

The following is a list of recommended graduate professional electives. A total of 5 credit hours of graduate professional electives is required. Other electives may be chosen with the written approval of the CPPS Curriculum Committee. A graduate course which significantly overlaps in content with a course used to fulfill the undergraduate professional elective requirement will not count towards fulfilling the graduate professional elective requirement. Credit for courses taken outside The University of Toledo can be counted towards professional elective credit requirements if a grade of C or better is earned, but grades will not be factored into CPPS or University of Toledo GPA calculations.

MBC

MBC 5100/ Research Practices in Medicinal Chemistry 1
MBC 5380 Medicinal & Poisonous Plants ...... 3
MBC 5620/ Biochemical Techniques .............. 2
MBC 6100/ Advanced Immunology.................. 2
MBC 6190/ Advanced Medicinal Chemistry.... 4
MBC 6200/ Biomedicinal Chemistry .............. 4
MBC 6420 Protein Chemistry/CHEM 6510/8510 2 or 4
MBC 6430/ Nucleic Acid Chem/CHEM 6530/8530 2 or 4
MBC 6440/ Enzymology/CHEM 6520/85202 or 4
MBC 6750/ Bioorganic Chemistry: Chemical
8750 Approaches to Enzymes.....................  3
MBC 6800/ Methods in Biotechnology ............ 3
MBC 6980 Special Topics in Biological Chemistry 1 to 5

PHCL

PHCL 5630 Cancer Chemotherapy.................. 3
PHCL 5730 Toxicology I.............................. 3
PHCL 5750 Toxicology II............................. 3
PHCL 5760 Toxicokinetics .........................  3
PHCL 5990 Problems in Pharmacology ....1 to 6
PHCL 6600 Seminar in Pharmacology ..........  1
PHCL 6770 Toxicological Risk Assessment .... 3

PHPR

PHPR 5590 Readings Access & Cultural Competence 2
PHPR 5680 Parenteral Manufacturing............. 2
PHPR 5690 Dosage Form Design.................... 3
PHPR 5710 Selected Topics in Pharmaceutical
Techniques ........................................ 2 to 3
PHPR 5720 Pharmaceutical Rate Processes .... 3
PHPR 5810 Finance & Personal Planning
for Pharmacists................................. 2
PHPR 5870  Compounding Boot Camp ............2
PHPR 5990  Problems in Pharmacy Practice1 to 6
PHPR 6400  Advanced Pharmacotherapy...........2
PHPR 6530  Research Methods in Pharmacy Practice 3
PHPR 6600  Seminar in Administrative Pharmacy 1
PHPR 6670  Chemical Dependency & The Pharmacist 3
PHPR 6700  Special Topics in Diabetes Care.........2
PHPR 6810  Hospital Pharmacy Administration3
PHPR 6820  Selected Topics in Hospital Pharmacy 3
PHPR 6830  Advanced Community Pharmacy Administration ..............................3
PHPR 6840  Selected Topics in Community Pharmacy 3
PHPR 6850  Selected Topics in Hospital Pharmacy 3
PHPR 6860  Seminar in Industrial Pharmacy ....1
PHPR 6880  Special Topics..........................1 to 5
PHPR 8540  Geriatric Monitoring Principles ...3

PHM
PHM 6400  Physical and Mental Effects of Psychoactive Substances ..............2

Additional Recommendations
BUAD 6300  Strategic Marketing & Analysis....3
BUAD 6600  Supply Chain Management.........3
BUAD 6900  Senior Business Policy Forum ......3
COMM 6260  Business Communication and Technology ...3
COUN 6240  Diagnosis and Mental Health ......4
COUN 6470/8470  Drugs and Mental Health Counseling ......4
EDP  5210  Child Behavior and Development 3
EDP  5230  Adult Development .................3
HEAL  5750  Obesity and Eating Disorders....3
HEAL  6530/8530  Drug Use and Misuse ..........3
MGMT 5110  Introduction to Management.........3
NURS 528  Theories of Addictive Behavior ...3
PSC  5330  Healthcare Policy ..................3
PSY  6600  Behavioral Neuroscience ..........3
PUBH  633  Public Health and Aging ..........3
SOC  5160  Health and Gender .................3

The University of Florida, College of Pharmacy
PHA  5239  Legal and Org Environ of Medicines Use..........................3
PHA  6935  Sel Topics in Pharmacy: Pharmaceutical Crimes Practice & Procedure ......3
PHA  6935  Selected Topics in Pharmacy: Veterinary Pharmacy ..................2

Mercer College of Pharmacy
PHA  505  Community Pharmacy Ownership 2