Aditi Marwaha, BPharm, PhD

Instructional Assistant Professor of Pharmacology
University of Houston-College of Pharmacy-Department of
Pharmacological and Pharmaceutical Sciences,
4849 Calhoun Road, Room 5013, Mail Code 5037,
Houston, TX 77204

Ph: 713-743-2704, <u>akhera@uh.edu</u> https://www.uh.edu/pharmacy/directory-home/ppsfaculty/aditi-marwaha/



Education

2005	PhD , Pharmacology, College of Pharmacy, University of Houston, Houston, TX
1998	Bachelor of Pharmacy, Maharaja Sayajirao University, Vadodara (India)

Academic Appointments

2015-pres.	Instructional Assistant Professor, College of Pharmacy, University of Houston
2019-pres.	Academic Coordinator, Department of Pharmacological and Pharmaceutical
	Sciences, University of Houston
2005-2015	Lecturer, College of Pharmacy, University of Houston
2000-2005	Teaching Assistant, College of Pharmacy, University of Houston

Honors and Awards

Fall 2020	Faculty of the Semester, Pharmacy Council, UH College of Pharmacy
Sp. 2020	Faculty of the Semester, Pharmacy Council, UH College of Pharmacy
2019-2020	Rho Chi Teaching Excellence Award, Rho Chi Society, Beta Omicron Chapter
2018-2019	Faculty Excellence Award in Teaching, UH College of Pharmacy
2018-2019	UH Alternative Incentive Program Award
2015-2016	Rho Chi Teaching Excellence Award, Rho Chi Society, Beta Omicron Chapter
2013-2014	Rho Chi Teaching Excellence Award , Rho Chi Society, Beta Omicron Chapter
2012-2013	University of Houston Teaching Excellence Award (\$8000 award),
	Instructor/Clinical Faculty Category
2012-2013	Certificate of Recognition for Teaching Excellence , Rho Chi Society
2012	Professor of the Semester, Pharmacy Class of 2014, UH College of Pharmacy
2011-2012	Faculty Excellence Award in Teaching, UH College of Pharmacy
2009-2010	Rho Chi Teaching Excellence Award , Rho Chi Society, Beta Omicron Chapter
2005	ASPET Graduate Student Travel Award Winner
2002	Induction into Rho Chi Society, the National Pharmacy Honorary Society
2000-2005	Graduate teaching assistant fellowship
1999	G.P Nair award by Indian Drug Manufacturer's Association
1998	University Gold Medal, Maharaja Sayajirao University, Vadodara

Certifications

2006-2011 Foreign Pharmacy Graduate Examination Committee Certification, NABP 2019 Team Based Learning Certification, Faculty Development, UHCOP

Teaching and Student Learning

Professional Year 1 (P1) PharmD Courses:

Physiology I (PHAR 4321)

2018-pres. Anatomy and physiology of skin (1.5 hours)

Physiology II (PHAR 4221)/Organ System Life Sciences II (PHAR 4421)

2007-pres. Course Coordinator

2007-pres. Cardiovascular physiology (8 hours)

2007-pres. Renal physiology (8 hours) 2007-pres. Respiratory physiology (8 hours)

Pharmaceutics I and Calculations (PHAR 4330)

2015-2016 Course Coordinator 2019 Prodrugs (1 hour)

2014-2019 Pharmacy calculations (7 hours)

2015-2016 Liquid Dosage Forms: Solutions (1 hour)

2015-2016 Molecular Expressions and Electrolytes Properties (4 hours)

2015-2016 Acid Base Equilibrium and Buffered Solutions (3 hours)

2015-2016 Molecular Interactions of Drugs (7 hours) 2015-2016 Drug Solubility and Distribution (3 hours)

2015-2016 Colligative Prop., Isotonic Solutions (3 hours)

Pharmaceutics II (PHAR 4331)

2016 Reaction kinetics of pharmaceuticals (7.5 hours)

2016 Catalysis (1.5 hours)

Functional Group Analysis -Lab (PHAR 4134)

2005-2010 Identification, nomenclature, stability of organic functional groups (24-90 hours)

2012-2013 Identification, nomenclature, stability of organic functional groups (24-90 hours)

Skills Program II (PHAR 4251)

2007-pres. Cardiovascular physiology case problems and calculations (6 hours) 2007-pres. Respiratory physiology case problems and calculations (3 hours)

2007-pres. Respiratory physiology case problems and calculations (3 hours)

Professional Year 2 (P2) PharmD Courses:

Integrated Renal Module (PHAR 5224)

2019-pres. Course Coordinator

2019-pres. Pathophysiology of acute kidney injury and chronic kidney disease (1 hour)

2019-pres. Pathophysiology of fluid and electrolyte disorders (1 hour)

2019-pres. Pathophysiology of acid base disorders (1 hour)

2019-pres. Disorders of calcium and phosphorus metabolism (1 hour)

2019-pres. Pharmacology of diuretics (2 hours)

2019-pres. Pharmacology of agents affecting calcium homeostasis (1 hour)

Integrated Gastrointestinal Module (PHAR 5225)

2019-pres. Pathophysiology of gastroesophageal reflux disorder (1 hour)

Pathophysiology of peptic ulcer disease, nausea and vomiting (1 hour)

2019-pres. Pathophysiology of pancreatitis (1 hour)

2019-pres. Pathophysiology of IBD and IBS (1 hour)

2019-pres. Pathophysiology of liver diseases (1 hour)

Integrated Endocrine Module (PHAR 5327)

2020-pres. Course Coordinator

2020-pres. Pharmacology of hypothalamus and pituitary gland disorders (1hour)

2020-pres. Pathophysiology of adrenal gland disorders (1 hour)

2020-pres. Pharmacology of adrenal gland disorders (2 hours)

2020-pres. Pathophysiology of thyroid gland disorders (1 hour)

2020-pres. Pharmacology of thyroid gland disorders (2 hours)

2020-pres. Pathophysiology of pancreatic disorders (2 hours)

2020-pres. Pharmacology of antidiabetic drugs (2 hours)

Integrated Cardiovascular I Module (PHAR 5329)

2020-pres. Pathophysiology of venous thromboembolism (2 hours)

2020-pres. Pharmacology of anticoagulants (2 hours)

Integrated Cardiovascular II Module (PHAR 5330)

2020-pres. Pharmacology of antiplatelets (1 hour)

2020-pres. Pharmacology of sympathomimetics/alpha agonists (1 hour)

Module-Related Skills Lab I (PHAR 5158)

2019-pres. Renal module pathophysiology and pharmacology cases (10 hours)

Module-Related Skills Lab II (PHAR 5259)

2020-pres. Endocrine module pathophysiology and pharmacology cases (10.5 hours)

2020-pres. CV I module pathophysiology and pharmacology cases (1.5 hours)

Pharmacology I (PHAR 5402)

2010-2013 Pharmacology of anticoagulants and thrombolytics (1 hour)

2010-2013 Pharmacology of antiplatelets (1 hour)

Medicinal Chemistry I (PHAR 5302)

2010 Ad-hoc Course Coordinator

2010 Medicinal chemistry of cholinergic and anticholinergic agents (3 hours)

2010 Medicinal chemistry of diuretics (2 hours)

Professional Year 3 (P3) PharmD Courses:

Integrated Neurology Module (PHAR 5335)

2020-pres. Pharmacology of neuromuscular blockers (1hour)

Integrated Immunology Module (PHAR 5236)

2020-pres. Pharmacology of NSAIDS, retinoids, exfoliants and topical steroids (2.5 hours)

Integrated Infectious Disease Module (PHAR 5338)

2020-pres. Pharmacology of antiparasitic agents (1hour)

Graduate (PhD) Courses:

Neuropharmacology (PCOL 7362)

2015-2019 Neuropharmacology of alcohol and alcoholism (3 hours)

Undergraduate Courses:

Principles of Drug Action (PHAR 2362)

2005-2018	Course Coordinator
Z000-Z010	Course Coordinator

2005-2007 Cell biology (4 hours)

2012-2018 Cell biology (4 hours)

2012-2018 Drug discovery and development (5 hours)

2007-2018 Pathophysiology of pain, inflammation, fever, common cold and cough (2 hours)

2006-2018 Pharmacology of OTC pain relievers, common cold and cough medications (2 hour)

2005-2018 Pathophysiology of skin disorders, pharmacology of OTC skin medications (8 hours)

2006-2018 Nutrition, artificial sweeteners, dietary supplements (7 hours)

2015-2018 Pathophysiology of gastrointestinal disorders and OTC drugs (4 hours)

2006-2018 Pathophysiology of oral cavity/ pharmacology of OTC dentifrices (2 hours)

2015-2018 Pharmacology of drugs of abuse and OTC sleep-aids and stimulants (7 hours)

Human Physiology and Pathophysiology I (PHPS 3300)

2008-2009 Autonomic nervous system (4.5 hours)

Human Physiology and Pathophysiology II (PHPS 3400)

2009-2010 Course Coordinator

2009-2010 Cardiovascular physiology and pathophysiology (8 hours)

2009-2010 Renal physiology and pathophysiology (8 hours)

2009-2010 Respiratory physiology and pathophysiology (8 hours)

Pharmacology I (PHPS 4400)

2009-2010 Pharmacology of drugs affecting autonomic nervous system (4 hours)

2009-2010 Pharmacology of antihypertensives (4 hours)

Pharmacology II (PHPS 4401)

2010-2011 Pharmacology of anticoagulants, antiplatelets and thrombolytics (2 hours)

Medicinal Chemistry I (PHPS 4301)

2010 Medicinal chemistry of cholinergic agents and anticholinergic agents (2 hours)

2010 Medicinal chemistry of diuretics (2 hours)

See Teaching Activity Table in Appendix 1

Educational Research Publications

Peer Reviewed Journal Articles

Marwaha A, Zakeri M, Sansgiry SS, Salim S. Combined effect of different teaching strategies on student performance in a large-enrollment undergraduate health sciences course. *Adv Physiol Educ*. 2021;45(3):454-460. doi:10.1152/advan.00030.2021

Teaching Grants

2018-2019 **UH ATIP Award**

Total amount awarded: \$ 2,500

The Alternative Textbook Incentive Program (ATIP), is a program offered by the UH libraries. ATIP offers awards to instructors who replace traditional textbooks with open or alternative textbooks in their courses.

2011-2014 UH Student Success Grant

Total amount awarded: \$ 15,000

The UH Student Success Grant was based on proposals submitted for pedagogical ideas to be implemented in the 1000 and 2000 level classes to improve student performance and reduce the number of D's, W's, I's and F's. The grant was for the course Principles of Drug Action (PHAR 2362).

Textbooks/Online Resources Developed

2018 Textbook for Pharmacy Calculations : <u>www.uh.edu/pharmacy-calculations</u>

Designed for professional year 1 pharmacy students. This online textbook has 11 modules. The modules walk the students through various concepts of pharmacy calculations and have solved examples. In addition, each module has a practice problem tab. The practice problem tab feature lets students solve practice problems multiple times, with a different set of problems each time.

2015 **Principles of Drug Action**. Edited by **Aditi Marwaha**, Samina Salim and Thomas Lemke, Second Edition, Cognella Publishers

Designed for students taking the undergraduate course, "Principles of Drug Action" (PHAR 2362) at University of Houston

2011 Website for PHAR 2362: www.uh.edu/phar2362

Includes interactive games and content reinforcement activities for the undergraduate course PHAR 2362

Teaching Presentations

Marwaha A, Surati D and Wollen J. Best Teaching Practices: Tips from the GOATs! – *Faculty Development Series, UHCOP, May 10th, 2021*

Marwaha A. Diabetic Kidney Disease – *Student National Pharmaceutical Association (SnPhA), Houston Chapter, February 5th, 2021*

Davis S, De La Cruz A, **Marwaha A**, Surati D, Williams L and Wollen J. Fall 2020 Faculty Town Hall: Panel Discussion on Virtual Classrooms, *Faculty Development Series, UHCOP, December* 17th, 2020

Marwaha A. ATIP Grants – The Process and the Final Product. - *Faculty Development Series, UHCOP, February 20th, 2020*

Marwaha A and Sherer JT. Lessons Learned from Teaching Modules in Fall 2019. – Faculty Retreat, UHCOP, January 9th, 2020

Marwaha A and Mauthner S. Clickers in the Classroom: The Pause that Refreshes and Stimulates! – 2nd Annual Innovative and Teaching Symposium, University of Houston, April 15th 2016

UHCOP New Curriculum Development and Designing

Course Development

2020	Integrated Endocrine Module, PHAR 5327
2019-2020	Cases for MRSLs I and II, PHAR 5224
2019	Integrated Renal Module, PHAR 5224
2019	Physiology II, PHAR 4221
2019	Cases for Physiology II skills, PHAR 4251
2018	Cases for Pharmacy Calculations skills, PHAR 4250
2018	Pharmacy Calculations, PHAR 4330

Curriculum Review and Design

2019-2021	Complex problem course planning, member
2017	Gastrointestinal module curricular review committee, member
2017	Respiratory module curricular review committee, member
2017	Oncology module curricular review, member
2017	CV module curricular review committee, member
2016	Renal module curricular review committee, member
2016	Physiology curricular review committee, member
2016	Skills-2 curricular review committee, member
2008-2010	BSPS Curriculum Committee, member

Advisor and Mentoring Activity

PharmD Students (Professional students)

2019-pres. Faculty Advisor

Pharmaceutical Association of the Middle East and South Asia

2013-2015 Faculty Advisor

Indian Pharmacy Student Association

PharmD Students (Teaching Assistants)

Mentored these PharmD students to teach 10 hours per semester in after-class review sessions for an undergraduate class (PHAR 2362). Each session had 30-40 students.

2018 Emily Cooper (Class of 2021) 2017 Jonathan Diaz (Class of 2020) Diane Dreucean (Class of 2019) 2016 2013-2015 Nicole Nguyen (Class of 2018) 2012-2013 Henrietta Abodakpi (Class of 2015) Erin Ploch (Class of 2015) 2012 2011-2012 Kristy Keys (Class of 2014) 2011-2012 Sarah Thorsell (Class of 2014)

PhD Students

PhD Thesis Committee

2009-2011 Siddhartha Bhatt, BPharm, PhD candidate, Mentor: Dr. Mustafa Lokhandwala 2009-2011 Apurva Javkhedkar, BPharm, PhD candidate, Mentor: Dr. Mustafa Lokhandwala

Faculty/Post Docs Mentored

Mentored the following faculty for teaching in undergraduate and PharmD classes

2017-2018 Dr. Sai Koka, Research Assistant Professor

For the undergraduate course PHAR 2362, enrolling 380 students

2016 Dr. Rashim Singh, Post-doc

For the PharmD course PHAR 4330, enrolling 120 students

Professional Development: Teaching Skills (Since 2016)

2021	American Association for the Advancement of Science (AAAS) Workshop: Responses to COVID-19: Adapting Classroom Teaching Techniques and Hands-On Learning to an Online Environment. (For APS members, online)
2020	Inclusive Teaching Practices to Build a Learning Community and a Sense of Belonging: Drs. Chi-Yu Huang and Allison Johnson, Virginia Commonwealth University, Faculty development, UHCOP
2020	Hyflex and Online Pedagogy at UH: Engaging students, Faculty Engagement and Development (FED), University of Houston

2020	Hyflex and Online Pedagogy at UH: Assessing students, Faculty Engagement and Development (FED), University of Houston
2020	Writing exam questions and interpreting statistics, Faculty development, UHCOP
2020	Peer Observation of Teaching, Pilot Program, Faculty development, UHCOP
2020	Navigating Fulbright Awards, Faculty Development, UHCOP
2019	Team-Based Learning, Session 1: An introduction to Team-Based Learning.
2019	Team-Based Learning, Session 2: The Michaelsen Approach
2019	Team-Based Learning, Session 3: Managing Team-Based Learning groups
2019	Team-Based Learning Session 4: Implementing Case Studies
2019	Faculty Service-learning workshop, Faculty Engagement and Development (FED), University of Houston
2019	The New University Model: Flipped, Adaptive, Digital and Active Learning, University of Houston
2019	Ed talk workshop and lunch
2018	Active Learning with TurningPoint: using TurningPoint polling system for Think-Pair-Share discussion, mini Case Study discussion, and Gamification, University of Houston
2018	Teaching to enhance metacognition (thinking about thinking), Faculty development, UHCOP
2018 2016-2019	TurningPoint Desktop/New Integration Training, FDIS, University of Houston Innovative Teaching and Learning Symposium (UHS ITLS): A day long symposium organized by University of Houston System. Designed to bring together individuals interested in the review and evaluation of emerging technologies; offers interactive sessions for workshops, discovery sessions, information sessions, and hands-on demonstrations that engage and inform participants.
2016	Examsoft training session, UHCOP: Training provided by the IT department to create, post and publish exams using Examsoft software.

Research Skills

Research (Academic)

2000-2005 **D**

Department of Pharmacological and Pharmaceutical Sciences, University of Houston, Houston Texas

<u>Dissertation thesis title:</u> "Renal dopamine receptor function in hyperglycemia associated oxidative stress."

Research skills: measurement of blood pressure and heart rate in rats and IV administration of pharmacological agents, involving catheterizing carotid artery, femoral artery, aorta and jugular vein. Renal function studies involving catheterizing of ureter and collecting urine for electrolyte analysis. Isolation and purification of proximal tubules from rat kidney, membrane preparation, gel electrophoresis, immuno-precipitation, immunoblotting.

Research (Industry)

1998-2000 **Sun**

Sun Pharmaceutical Industries Ltd. Vadodara, India Clinical Research Assistant – Regulatory Affairs

Prepared training manuals to train medical representatives about antineoplastics, antidepressants and antiepileptic drugs.

Part of team involved in designing clinical trial protocols for various antidepressants, antihypertensives, antiepileptics, sedatives, antiemetics and drugs used in arthritis. Prepared post-marketing surveillance study protocols and reports.

Prepared package inserts and labels for drugs.

Prepared schedule-Y applications for new drug approval from the Drug Controller of India.

Done literature survey for clinical, pharmacokinetic data and rational for new drug combinations

Research Publications

Peer Reviewed Journal Articles

Banday AA, Fazili FR, **Marwaha A**, Lokhandwala MF. Mitogen-activated protein kinase upregulation reduces renal D1 receptor affinity and G-protein coupling in obese rats. *Kidney Int.* 2007 Mar;71(5):397-406.

Marwaha A, Lokhandwala MF. Tempol Reduces Oxidative Stress and Restores Renal Dopamine D1-like Receptor G-Protein Coupling and Function in Hyperglycemic Rats. *Am J Physiol Renal Physiol.* 2006 291(1): F58-66.

Banday A, **Marwaha A,** Tallam L, Lokhandwala MF. Tempol reduces oxidative stress, improves insulin sensitivity, decreases renal dopamine D1 receptor hyperphosphorylation and restores D1 receptor-G protein coupling and function in obese Zucker rats. **Diabetes** 54: 2219-26, 2005.

Marwaha A, Banday AA, Lokhandwala MF. Reduced Renal Dopamine D1 Receptor Function In

Streptozotocin-Induced Diabetic Rats. Am J Physiol Renal Physiol. 2004 286: F451-7.

Trivedi M, **Marwaha A**, Lokhandwala MF. Rosiglitazone Restores G-protein Coupling, Recruitment, and Function of Renal Dopamine D1A Receptor in Obese Zucker Rats. *Hypertension*.43: 376-82, 2004.

Marwaha A, Lokhandwala MF. Diminished natriuretic response to dopamine D1 receptor agonist, SKF-38393 in obese Zucker rats. *Clin Exp Hypertens*. 25:509-15, 2003.

Published Abstracts

Marwaha A, Lokhandwala MF. Oxidative stress contributes to reduced renal dopamine D₁ receptor function in hyperglycemic rats. FASEB J. 2005.

Banday AA, **Marwaha A**, Lokhandwala MF. Tempol Improves Insulin Sensitivity and Restores Renal Dopamine D1 Receptor-G Protein Coupling and Function in Obese Zucker Rats. Hypertension 44: 531, 2004.

Banday AA, **Marwaha A**, Lokhandwala MF. Hyperglycemia-induced Oxidative Stress Impairs Renal Dopamine D1 Receptor Function via Protein Kinase C Activation and G Protein Coupled Receptor Kinase 2 Translocation. Hypertension 44: 559 2004.

Marwaha A, Banday AA, Lokhandwala MF. Impaired renal dopamine D1 receptor function in streptozotocin-induced diabetic rats. FASEB J.18:A577, 2004.

Khera A, Banday A, Lokhandwala MF. Reduced renal dopamine D1-like receptor expression and function in streptozotocin-induced diabetic rats. Hypertension 42:421D, 2003.

Trivedi, M., **Khera A**., Hussain, T. and Lokhandwala, M. F. Improvement in Insulin Sensitivity with Rosiglitazone Restores Recruitment, G-protein Coupling, and Function of Renal Dopamine D_{1A} Receptors in Obese Zucker Rats. *Hypertension*. 42:396, 2003.

Khera A, Lokhandwala MF. Diminished natriuretic and diuretic response to D1-like receptor agonist SKF 38393, in obese Zucker rats. FASEB J.17:A671, 2003.

Professional Affiliations

Member, National Science Teaching Association Member, The American Physiological Society Member, The Rho Chi Society

Service and Outreach Activities

2019-pres. Academic Coordinator, PPS

Develop and implement an annual teaching plan for PPS faculty.

Assigning PPS faculty teaching assignments in P1, P2 and P3 PharmD curricular courses.

Assigning PPS faculty teaching assignments in graduate curricular courses.

Updating faculty at the beginning of every semester with a snapshot of their teaching assignments.

PPS Post-Doc Teaching Program: providing opportunity to Post-Docs to gain teaching experience.

Finding guest lecturers (staff, research, faculty, alum, industry) with relevant backgrounds to teach in PharmD and graduate curriculum.

Provide resources, cougarnet account (to alum), exam questions, lecture material, old lecture recordings to faculty/instructors teaching new topics.

Maintaining an updated spreadsheet of PPS teaching workload.

Updating faculty of new editions of textbooks, providing them with electronic access to these newer editions.

Assisting faculty with exam soft, blackboard and other teaching tools.

Updating PPS faculty with teaching updates in the monthly faculty meeting.

Assisting faculty with polling technology (PollEv), exam analysis, queries related to course coordination.

Provide input to the Dept. Chair and Assistant Dept. Chair in annual faculty teaching evaluation during annual faculty activity report (FAR) review.

Department, College and University Committees

2020-pres.	Concentration leader, Pharmacology division, PPS (department)
2019-pres.	Member, Strategic planning committee (college)
2019-pres.	Evaluator, Peer observation of teaching (college)
2017-pres.	Member, PharmD Admissions and Progression Committee (college)
2011-2016	Member, PharmD Admissions and Progression Committee (college)

201	17-pres.	MMI Assessor, PharmD Admissions (college)
	16-pres.	Member, PharmD Experiential Advisory Committee (college)
201	15-pres.	Faculty Panel Member
	·	Spring Showcase for Incoming P1 Students/Families (college)
201	15-pres.	Faculty Panel Member
	•	P1 Student Orientation (college)
20	19-2020	Member, ATIP Review Committee (university)
201	18	Ad hoc member, Faculty Advisory Committee (college)
201	18	Contributor, PPS Chronicle (a yearly graduate student newsletter)
201	17	Member, Task force Current UHCOP work culture (college)
20	16-2018	Faculty Evaluator, Therapeutic case exam (college)
201	16-2017	Member, Curricular Review committee (college)
20	13-2016	Chair, PharmD Student Affairs Committee (college)
201	15-2016	Member, UHCOP Classroom Technology Manager Search Committee (college)
201	14-2015	Member, New Building Classroom Design Committee (college)
201	12-2016	Faculty Advisor, PALS Program at UH (university)
201	12-2013	Member, PharmD Student Affairs Committee (college)
200	05-2011	Member, PharmD Student Affairs Committee (college)
20	10-2012	Member, PharmD Assessment Committee (college)
200	09-2013	Member, PharmD Accreditation, Standards for Organization & Administration
		Accreditation Subcommittee

Service to the Profession

2005-pres. Journal Reviewer for Clinical and Experimental Hypertension
 2021-pres. Journal Reviewer for Advances in Physiology Education
 Nursing school exam rater, Purdue University

Service to the Community

2020	Judge, Pharmflix video challenge, UHCOP
2019	Volunteer, Pancakes and Profs, UHCOP
2019-pres.	Volunteer, AID Houston Chapter
2018-pres.	Parent volunteer, Challenger Elementary, PISD, Pearland
2016-pres.	Volunteer, Raj Yoga Meditation, Houston
2018-pres.	Faculty Advisor, Roarin Raas (Indian dance group), University of Houston
2013-2018	Faculty Advisor, Hindu Yuva, University of Houston
2010-2013	Faculty Advisor, Hindu Student Organization, University of Houston

Year,	Course (% taught)	Credits	# Students	
Semester				Hrs.
2021, Spring	Integrated Endocrine Module (PHAR 5327) (32%; course coordinator)	3	124	21
2021, Spring	Integrated CV I Module (PHAR 5329) (9.5%)	3	124	4
2021, Spring	Integrated CV II Module (PHAR 5330) (5%)	3	124	2
2021, Spring	MRSLs II (PHAR 5259)	2	124	12
2021, Spring	Physiology II (PHAR 4221) (86%; course coordinator)	2	117	30
2021, Spring	Skills lab (PHAR 4251)	2	117	12
2020, Fall	Integrated Renal Module (PHAR 5224) (25%; course coordinator)	2	125	11
2020, Fall	Integrated GI Module (PHAR 5225) (18%)	2	125	5
2020, Fall	Integrated Neurology Module (PHAR 5335) (2.4%)	3	113	1
2020, Fall	Integrated Immunology Module (PHAR 5236) (9%)	2	113	2.5
2020, Fall	Integrated Infectious Disease Module (PHAR 5338) (2%)	3	113	1
2020, Fall	Physiology I (PHAR 4320) (3.5%)	3	126	1.5
2020, Fall	MRSLs I (PHAR 5158)	1	113	10
2020, Spring	Integrated Endocrine Module (PHAR 5327) (37%; course coordinator)	3	115	22
2020, Spring	Integrated CV I Module (PHAR 5329) (7%)	3	115	3

Year,	Course (% taught)	Credits	# Students	Contact
Semester				Hrs.
2020, Spring	Integrated CV II Module (PHAR 5330) (7%)	3	115	3
2020, Spring	MRSLs II (PHAR 5259)	2	115	12
2020, Spring	Physiology II (PHAR 4221) (86%; course coordinator)	2	124	30
2020, Spring	Skills lab (PHAR 4251)	2	124	12
2019, Fall	Integrated Renal Module (PHAR 5224) (25%; course coordinator)	2	118	11
2019, Fall	Integrated GI Module (PHAR 5225) (23%)	2	118	7
2019, Fall	MRSLs I (PHAR 5158)	1	118	15
2019, Fall	Physiology I (PHAR 4320) (3.5%)	3	127	1.5
2019, Fall	Pharmaceutics I and Calculations (25%, PHAR 4330)	3	123	11
2019, Spring	Physiology II (PHAR 4221) (86%; course coordinator)	2	129	30
2019, Spring	Skills lab (PHAR 4251)	2	129	12
2019, Spring	Neuropharmacology (PHAR 7362) (8%)	3	5	3
2018, Fall	Principles of Drug Action (PHAR 2362) (95%; course coordinator)	3	378	44
2018, Fall	Pharmaceutics I and Calculations (25%, PHAR 4330)	2	128	11
2018, Fall	Physiology I (PHAR 4320) (3.5%)	3	130	1.5
2018, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	128	33

Year, Semester	Course (% taught)	Credits	# Students	Contact Hrs.
2018, Spring	Skills lab (PHAR 4251)	2	128	24
2017, Fall	Principles of Drug Action (PHAR 2362) (95%; course coordinator)	3	378	44
2017, Fall	Pharmacy Calculations (PHAR 4172) (Course Coordinator)	1	128	18
2017, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	124	33
2017, Spring	Skills lab (PHAR 4251)	2	124	24
2017, Spring	Neuropharmacology (PHAR 7362) (8%)	3	6	3
2016, Fall	Principles of Drug Action (PHAR 2362) (100%; course coordinator)	3	380	44
2016, Fall	Pharmaceutics I (PHAR 4330) (45%; course coordinator)	3	130	18
2016, Fall	Pharmacy Calculations (PHAR 4172) (Course coordinator)	1	128	18
2016, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	126	33
2016, Spring	Skills lab (PHAR 4251)	2	126	24
2016, Spring	Pharmaceutics II (PHAR 4331) (28%)	2	128	10
2015, Fall	Principles of Drug Action (PHAR 2362) (100%; course coordinator)	3	259	44
2015, Fall	Pharmaceutics I (PHAR 4330) (45%; course coordinator)	3	131	18
2015, Fall	Pharmacy Calculations (PHAR 4172) (Course coordinator)	1	127	18

Year, Semester	Course (% taught)	Credits	# Students	Contact Hrs.
2015, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	125	33
2015, Spring	Skills lab (PHAR 4251)	2	125	24
2015, Spring	Neuropharmacology (PHAR 7362) (8%)	3	9	3
2014, Fall and Spring	Principles of Drug Action (PHAR 2362) (76%; course coordinator)	3	520	63
2014, Fall and Spring	Functional group Analysis (PHAR 4250/1) (15%)	2	125	24
2014, Fall	Pharmacy Calculations (PHAR 4172) (Course coordinator)	1	126	18
2014, Spring	Organ System Life Science (PHAR 4421) (38%; course coordinator)	4	120	29
2014, Spring	Skills lab (PHAR 4251)	2	120	12
2013, Fall and Spring	Principles of Drug Action (PHAR 2362) (76%; course coordinator)	3	558	63
2013, Fall and Spring	Functional group Analysis (PHAR 4250/1) (15%)	2	114	24
2013, Fall	Pharmacology I (PHAR 5402) (2%)	4	108	1
2013, Spring	Organ System Life Science (PHAR 4421) (38%; course coordinator)	4	108	29
2013, Spring	Skills lab (PHAR 4251)	2	108	12
2012, Fall and Spring	Principles of Drug Action (PHAR 2362) (72%; course coordinator)	3	548	63
2012, Fall	Pharmacology I (PHAR 5402) (4%)	4	110	2

Year,	Course (% taught)	Credits	# Students	Contact
Semester				Hrs.
2012, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	111	33
2012, Spring	Skills lab (PHAR 4251)	2	111	24
2011, Fall and Spring	Principles of Drug Action (PHAR 2362) (64%; course coordinator)	3	475	59
2011, Fall	Pharmacology I (PHAR 5402) (4%)	4	115	2
2011, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	113	33
2011, Spring	Skills lab (PHAR 4251)	2	113	24
2010, Fall and Spring	Principles of Drug Action (PHAR 2362) (61%; course coordinator)	3	498	53
2010, Fall and Spring	Functional group Analysis (PHAR 4250/1) (15%)	2	114	24
2010, Fall	Pharmacology I (PHAR 5402) (4%)	4	104	2
2010, Fall	Pharmacology I (PHPS 4400) (17%)	4	30	8
2010, Fall	Medicinal Chemistry I (PHAR 5302) (15%; ad hoc course coordinator)	3	103	9
2010, Fall	Medicinal Chemistry I (PHAR 4301) (10%)	3	28	4
2010, Spring	Organ System Life Science (PHAR 4421) (54%; course coordinator)	4	107	33
2010, Spring	Skills lab (PHAR 4251)	2	107	24
2010, Spring	Human Phys and Patho II (PHPS 3400) (54%; course coordinator)	4	39	33

Year, Semester	Course (% taught)	Credits	# Students	Contact Hrs.
2010, Spring	Pharmacology II (PHPS 4401) (4%)	4	8	2
2009, Fall and Spring	Principles of Drug Action (PHAR 2362) (57%; course coordinator)	3	535	47
2009, Fall	Human Phys and Patho I (PHPS 3300) (11%)	3	43	4.5
2009, Fall	Pharmacology I (PHPS 4400) (17%)	4	15	8
2009, Spring	Organ System Life Science (PHAR 4421) (50%; course coordinator)	4	124	30
2009, Spring	Skills lab (PHAR 4251)	2	124	24
2009, Spring	Human Phys and Patho II (PHPS 3400) (50%; course coordinator)	4	23	30
2008, Fall and Spring	Principles of Drug Action (PHAR 2362) (61%; course coordinator)	3	474	50
2008, Fall and Spring	Functional group Analysis (PHAR 4250/1) (25%)	2	126	45
2008, Fall	Human Phys and Patho I (PHPS 3300) (11%)	3	43	4.5
2008, Spring	Organ System Life Science (PHAR 4421) (50%; course coordinator)	4	127	30
2008, Spring	Skills lab (PHAR 4251)	2	127	24
2007, Fall and Spring	Principles of Drug Action (PHAR 2362) (66%; course coordinator)	3	437	54
2007, Fall and Spring	Functional group Analysis (PHAR 4250/1) (25%)	2	126	45
2007, Spring	Organ System Life Science (PHAR 4421) (50%; course coordinator)	4	119	30

Appendix – 1: Teaching Activity						
Year, Semester	Course (% taught)	Credits	# Students	Contact Hrs.		
2007, Spring	Skills lab (PHAR 4251)	2	119	24		
2007, Spring	Organ Physiology (PHAR 6451) (50%; course coordinator)	4	1	30		
2006, Fall and Spring	Principles of Drug Action (PHAR 2362) (49%; course coordinator)	3	458	46		
2006, Fall and Spring	Functional group Analysis (PHAR 4250/1) (50%)	2	129	90		
2005, Fall and Spring	Principles of Drug Action (PHAR 2362) (20%; course coordinator)	3	538	21		
2005, Fall and Spring	Functional group Analysis (PHAR 4250/1) (50%)	2	129	90		