UNIVERSITY OF ALBERTA
FACULTY OF PHARMACY AND PHARMACEUTICAL SCIENCES

SPECIALIZATION ELECTIVES

Approved by the Curriculum Committee – Updated October 2017

OVERVIEW

Specialization Electives in the BScPharm and PBS programs are a core component of the professional degree program allowing students to pursue further learning in areas related to pharmacy or topics complimentary to pharmacy practice roles. For instance, courses are available to support students interested in pharmacy management (see PHARM 494) or practice in geriatrics (see SOC 375 or DRAMA 407). BScPharm students are required to complete three specialization electives (9 credits) usually in the fourth year of the program and PBS students are required to complete one specialization elective (3 credits) in the Spring/Summer term of the fourth year. Transfer credit is not accepted for Specialization Electives as they must be University of Alberta courses.

There are also four **Option** courses in the BScPharm program: year one (3 credits), year three (3 credits) and year four (6 credits). Options are normally selected from courses outside of the Faculty of Pharmacy and Pharmaceutical Sciences and allow students to pursue ***areas of personal interest*** and promote a liberal education. Transfer credit is accepted for Options. See University of Alberta Calendar Section Program of Courses.

CHOOSING COURSES

Specialization Electives are ideally selected from courses offered by the Faculty of Pharmacy and Pharmaceutical Sciences. At the present time, all students are required to take (at least) 3 credits from the Faculty of Pharmacy and Pharmaceutical Sciences (one course). Students are encouraged to speak with their Faculty Advisor or to Student Services about questions regarding choice of specialization electives. For information about specific courses, students are encouraged to approach the course coordinators with their questions.

Students are encouraged to register early for courses. Please note that some courses have minimum enrolment numbers therefore enrolling and withdrawing from a Pharmacy course near the registration deadline may adversely affect planning for interdisciplinary group-work in the course (e.g. PHARM 452) or necessitate cancellation of the course (e.g. PHARM 494).

APPROVED SPECIALIZATION ELECTIVES

The courses offered as specialization electives serve the purpose of furthering your understanding as well as, in some instances, offering you opportunities to focus learning in an area related to roles of pharmacists. A list of specialization electives including courses offered by other Faculties approved by the Curriculum Committee is updated and posted on the Faculty's website each year. If a student identifies another course as a specialization elective, please submit a request, including justification as to why it should be considered, to Dr. Dion Brocks (dbrocks@ualberta.ca).

This document lists courses approved as Specialization Electives for fourth-year Pharmacy students. Courses are organized in two ways: 1) Courses and 2) Roles (see Association of Faculties of Pharmacy of Canada (AFPC) Educational Outcomes for Pharmacy programs)[1]. Many courses address more than one role or educational outcome of the program; the most prominent role was identified for this listing. For more information about specific courses, please refer to the University of Alberta Calendar section 231 for course description including pre-requisites and Bear Tracks for course availability. Students are encouraged to contact the instructor for additional information about a course. Please see *notes for additional information on some of the courses listed and *eligibility for credit toward the Certificate in Global Citizenship.

[1] Association of Faculties of Pharmacy of Canada (2017). Educational outcomes for first professional degree programs in pharmacy Canada in 2017. Accessed at http://www.afpc.info/system/files/public/AFPC-Educational%20Outcomes%202017_final%20Jun2017.pdf

LISTED BY COURSE

BScPharm Program

PHARMACY COURSES

PHARM 452	Pharmacy Practice - Design and Function – Fall term
PHARM 455	Specialty Pharmacy Rotation – Fall term
PHARM 489	Seminars in Therapeutics and Professional Practice – Fall term
PHARM 494	Pharmacy Management: Selected Topics – Fall term
PHARM 498	Research and Directed Studies – Spring/Summer or Fall term
PHARM 564***	Toxicology of Pharmaceutical Agents and Related Xenobiotics - Fall Term
PHARM 570***	Advanced Pharmaceutical Analysis – Spectroscopy – Fall term
PHARM 573***	Analytical Techniques in Pharmaceutical Sciences – Fall term
ONCOL 475/575	Fundamentals of Radiopharmaceutical Sciences – Spring/Summer or Fall term

The following International courses require consent of Faculty for registration

PHARM 453*	Intercultural Exploration of Pharmacy and Health – Italy – Spring term
INT D 457*	Global Health – China Collaboration – Summer term
INT D 375*	Intercultural Exploration of Health and Practice in Italy - Spring term

COURSES OFFERED BY OTHER FACULTIES

ACCTG 300**	Introduction to Accounting – Fall term
ANTHR 393*	Health and Healing – Fall term
ANAT 400	Human Embryonic Development – Fall term
ASL 111	Beginners' American Sign Language I – Fall term
B LAW 301**	Legal Foundations of the Canadian Economy– Fall term
BIOCH 450	The Molecular Biology of Mammalian Viruses – Fall term
BUS 640	Strategic Supply Chain Management – Fall term
CELL 300	Advanced Cell Biology I – Fall term
CSL 300*	Theory and Practice in Community Service-Learning – either term
CSL 480*	Individual Study in Community Service-Learning –Variable
DRAMA 407	Studies in Drama II – Fall term
DRAMA 507	Senior Projects – Fall term
HE ED 320	Social Dimensions of Health Promotion – Fall term
HECOL 414***	Seniors and Their Environments – Fall term
INT D 404*	Global Citizenship Contemporary Issues & Perspectives – Fall term
INT D 411	Advanced Interprofessional Team Practice – Fall term
NU FS 305	Introduction to the Principles of Nutrition – Fall term
NU FS 427	Food Safety – Fall term
NURS 498*	Special Study – variable two term
ONCOL 320	Introduction to Oncology – Fall term
ONCOL 424	Nutrition and Metabolism Related to Cancer – Fall term
PHIL 386	Health Care Ethics– Fall term
PMCOL 305*	An Introduction to the Pharmacology of Drug Abuse – Fall term
PMCOL 371	Cellular Neuroscience – Fall term
PMCOL 412*	Drugs and the Nervous System – Fall term
PMCOL 415*	Cardiovascular Pharmacology – Fall term

PMCOL 416*	Current Topics in Endocrine Pharmacology – Fall term
PSYCO 377	Human Neuropsychology – Fall term
PTHER 350	Structural Human Anatomy –Spring/Summer or Fall term
PTHER 351	Principles of Human Movement for Rehabilitation - Spring/Summer or Fall term
SMO 301**	Behaviour in Organizations – Fall term
SOC 375	Sociology of Aging – Fall term
SOC 382	Sociology of Health and Illness – Fall term
SOC 451	Sociology of Human Fertility – Fall term
SOC 452	Mortality and Population Health- Fall term
SOC 473	Sociology of Death and Dying – Fall term
SOC 486	Sociology of Mental Illness – Fall term

PBS PROGRAM

PHARMACY COURSES

PHARM 494	Pharmacy Management: Selected Topics
PHARM 495	Leadership in Healthcare Decision Making
PHARM 496	Current Topics in Pharmacy Practice
PHARM 498	Research and Directed Studies – Spring/Summer

The following International courses require consent of Faculty for registration

PHARM 453*	Intercultural Exploration of Pharmacy and Health – Italy – Spring term
INT D 375*	Intercultural Exploration of Health and Practice in Italy - Spring term

COURSES OFFERED BY OTHER FACULTIES

ONCOL 475/575	Fundamentals of Radiopharmaceutical Sciences – Spring
PHIL 386	Health Care Ethics– Spring term
PTHER 350	Structural Human Anatomy –Spring
PTHER 351	Principles of Human Movement for Rehabilitation - Spring
SOC 473	Sociology of Death and Dying – Spring term

Notes:

This document is updated to reflect a complete listing of specialized electives approved by the Faculty of Pharmacy and Pharmaceutical Sciences. **A course's placement on this list does not guarantee its availability in any given term.** Therefore, students are encouraged to confirm availability of a desired elective through the "Search for Classes" tab in Bear Tracks.
Students are responsible to ensure that **all** pre-requisites are met prior to registration. Refer to University of Alberta Calendar Course Listings or contact the Department.

*Courses approved for credit toward the Certificate in Global Citizenship, Faculty of Education.

*Pre-requisites for pharmacology courses (PMCOL) on this list may be waived by the Department of Pharmacology for pharmacy students. Please contact the Department of Pharmacology or the Course Coordinator prior to registration.

** SMO 301, ACCTG 300, and B LAW 301 - Other course fees are associated with these courses. Please consult the Department regarding fees.

***Generally offered in alternate years, as driven by student demand.

LISTED BY ROLES

As **Care Providers,** pharmacy graduates provide patient-centred pharmacy care by using their knowledge, skills and professional judgement to facilitate management of a patient's medication and overall health needs across the care continuum. Care Provider is the core of the discipline of pharmacy.

PHARM 455	Specialty Pharmacy Rotation
PHARM 489	Seminars in Therapeutics and Professional Practice
ANTHR 393*	Health and Healing
INT D 411	Advanced Interprofessional Team Practice
NU FS 305	Introduction to the Principles of Nutrition
NU FS 427	Food Safety
PHIL 386	Health Care Ethics
PTHER 350	Structural Human Anatomy
PTHER 351	Principles of Human Movement for Rehabilitation
PSYCO 377	Human Neuropsychology

As **Communicators,** pharmacy graduates communicate effectively in lay and professional language, using a variety of strategies that take into account the situation, intended outcomes of the communication and diverse audiences

PHARM 453*	Intercultural Exploration of Pharmacy and Health, Italy
PHARM 495	Leadership in Healthcare Decision Making
ASL 111	Beginners' American Sign Language I
ANTHR 393*	Health and Healing
DRAMA 407/507	Senior Projects
INT D 375*	Intercultural Exploration of Health and Practice in Italy

As **Collaborators**, pharmacy graduates work collaboratively with patients and intra- and inter-professional teams to provide safe, effective, efficient health care, thus fulfilling the needs of the community and society at large.

PHARM 452	Pharmacy Practice - Design and Function
DRAMA 407/507	Senior Projects
INT D 411	Advanced Interprofessional Team Practice
INT D 457*	Global Health – China Collaboration

As **Leader and Managers,** pharmacy graduates engage with others to optimize the safety, effectiveness and efficiency of health care and contribute to a vision of a high-quality health care system

PHARM 494	Pharmacy Management: Selected Topics
PHARM 495	Leadership in Healthcare Decision Making
ACCTG 300**	Introduction to Accounting
BUS 640	Strategic Supply Chain Management
B LAW 301**	Legal Foundations of the Canadian Economy
SMO 301**	Behavior in Organizations

As **Health Advocates,** pharmacy graduates demonstrate care for individual patients, communities and populations by using pharmacy expertise to understand health needs and advance health and well-being of others.

PHARM 453*	Intercultural Exploration of Pharmacy and Health, Italy
PHARM 495	Leadership in Healthcare Decision Making
ANTHR 393*	Health and Healing
CSL 300*	Theory and Practice in Community Service-Learning
CSL 480*	Individual Study in Community Service-Learning
DRAMA 407	Studies in Drama II
DRAMA 507	Senior Projects
HE ED 320	Social Dimensions of Health Promotion
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INT D 375*	Intercultural Exploration of Health and Practice in Italy
NURS 498*	Global Citizenship in Health
PHIL 386	Health Care Ethics
SOC 375	Sociology of Aging
SOC 382	Sociology of Health and Illness
SOC 451	Sociology of Human Fertility
SOC 452	Mortality and Population Health-
SOC 473	Sociology of Death and Dying
SOC 486	Sociology of Mental Illness

As **Scholars,** pharmacy graduates take responsibility for excellence by applying medication therapy expertise, learning continuously, creating new knowledge and disseminating knowledge when teaching others.

PHARM 498	Research and Directed Studies
PHARM 570	Advanced Pharmaceutical Analysis – Spectroscopy
PHARM 573	Analytical Techniques in Pharmaceutical Sciences
ANAT 400	Human Embryonic Development
BIOCH 450	The Molecular Biology of Mammalian Viruses
CELL 300	Advanced Cell Biology I
ONCOL 320	Introduction to Oncology
ONCOL 424	Nutrition and Metabolism Related to Cancer
ONCOL 475/575	Fundamentals of Radiopharmaceutical Sciences – either term or Spring/Summer
PMCOL 305*	An Introduction to the Pharmacology of Drug Abuse
PMCOL 371	Cellular Neuroscience
PMCOL 412*	Drugs and the Nervous System
PMCOL 415*	Cardiovascular Pharmacology
PMCOL 416*	Current Topics in Endocrine Pharmacology
PSYCO 377	Human Neuropsychology

As **Professionals**, pharmacy graduates take responsibility and accountability for delivering pharmacy care to patients, communities and society through ethical practice and the high standards of behaviour that are expected of self-regulated professionals. The Professional role is the overarching ethos of the discipline of pharmacy.

PHARM 455	Specialty Pharmacy Rotation
PHARM 495	Leadership in Healthcare Decision Making

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