

UNIVERSITY OF CALGARY
DEPARTMENT OF CHEMISTRY
COURSE SYLLABUS
Winter 2017**COURSE: CHEMISTRY 615, Analytical Separations**

LEC	DAYS	TIME	ROOM	INSTRUCTOR	OFFICE	PHONE	EMAIL	OFFICE HOURS
L01	TR	11:00-12:15	SA 125	Dr. Thurbide	SB 219	220-5370	thurbide@ucalgary.ca	TBA

TEXTBOOK: None.

TOPICS COVERED AND SUGGESTED READING:

Overview: The course will provide students with an understanding of separation science in both a classical and modern context. Basic chromatographic theory and the underlying principles for achieving separations will be discussed along with historical perspectives on significant scientific advances in the field. The primary areas of focus will be chromatography and detection. In addition to fundamental concepts, students will also be introduced to practical aspects and applications of chromatography as it relates to instrumental design, troubleshooting considerations, and method development.

- History of Chromatography
- Fundamentals of Separations
- Gas Chromatography
- Liquid Chromatography (including IEC, GPC)
- Supercritical Fluid Chromatography
- Capillary Electrophoresis
- Fundamentals of Detection
- GC Detectors
- LC Detectors