Course-based Master (MEng) students must take a **minimum of 10 courses; at least 6 must be 600-level courses; at least 4 must be ENGO 600-level courses**. (https://www.ucalgary.ca/pubs/calendar/grad/current/engineering-geomatics-engo.html)

MEng students with a Geomatics Degree:
A minimum of 6 graduate level courses selected from lists A, B, D, with at least 4 of these courses from list B.
Up to 4 undergraduate level courses from lists C2 and E.

MEng students with a non-Geomatics Degree:
A minimum of 6 graduate level courses selected from lists A, B, D, with at least 4 of these courses from list B.
Up to 4 undergraduate level courses from lists C1, C2 and E.

2020-2021 List of Courses
All courses are subject to availability.

A. Engineering (ENGG) Common Core Courses:

    ENGG 687 – Ethics, Law, and the Engineering Profession
    ENGG 685 – Energy Policy
    ENGG 684 – Introduction to Project Management
    ENGG 683 – Innovation and Entrepreneurship
    ENGG 682 – Sustainability
    ENGG 681 – Engineering Tools

B. Geomatics Engineering (ENGO) Graduate Courses

    ENGO 610 – Geospatial Vision
    ENGO 612 – Wellbore Positioning by MWD sensors in the Directional Drilling
    ENGO 615 – Advanced Physical Geodesy
    ENGO 623 – Inertial Surveying & INS/GPS Integration
    ENGO 625 – Advanced GNSS Theory and Application
    ENGO 629 – Advanced Estimation Methods & Analysis
    ENGO 637 – Earth Observation for the Environment
    ENGO 638 – GNSS Receiver Design
    ENGO 645 – Spatial Databases and Data Mining
    ENGO 694 – Advanced Topics in Sensor Web and Internet of Things

    ENGO 601 – Graduate Project
    ENGO 697 – Directed Studies

    Go to Schedule Builder for the available full list of ENGO 600 level courses.

C1. Geomatics Engineering (ENGO) Undergraduate Courses – Fundamentals

    ENGO 423 – Geodesy
    ENGO 431 – Principles of Photogrammetry
    ENGO 435 – Remote Sensing
    ENGO 443 – Geodetic and Engineering Surveys

C2. Geomatics Engineering (ENGO) Undergraduate Courses – Advanced Topics

ENGO 451 – Design and Implementation of Geospatial Information Systems
ENGO 455 – Land Tenure and Cadastral Systems
ENGO 465 – Satellite Positioning
ENGO 545 – Hydrographic Surveying
ENGO 579 – Survey Law and Practice
ENGO 581 – Land Use Planning

D. Suggested Non- Geomatics Engineering (ENGO) Graduate Courses *(subject to availability)*

ENEN 635   Environmental Modelling
ENEL 645   Data Mining & Machine Learning
ENEL 671   Adaptive Signal Processing
CPSC 615   Computational Techniques for Graphics and Visualization
GEOG 633   Research & Applications in Remote Sensing
GEOG 639   Advanced Spatial Analysis and Modeling
GEOG 647   Advanced Research and Applications In Geographic Information Systems
GEOG 680   Principles of Digital Cartography and Geovisualization
GEOG 682   Fundamentals of GIS
GEOG 684   Fundamentals of Remote Sensing
GEOG 686   Applied Statistics and Geospatial Analysis
GOPH 671   Inverse Theory and Applications I
GOPH 673   Inverse Theory and Applications II

E. Suggested Non- Geomatics Engineering (ENGO) Undergraduate Courses

CPSC 471   Data Base Management Systems
CPSC 571   Design & Implement Database Systems
GEOG 567   Introduction to Programming in GIS
GEOG 584   Advanced Remote Sensing
GEOG 585   Multivariate Statistics
GEOG 586   Web Mapping and Internet GIS
GEOG 587   Geospatial Project Management
GEOG 588   Urban GIS

Note a completed and signed Change of Course form may be required for non-Geomatics Engineering (ENGO) courses.