ICM Course Descriptions

ICM will provide, upon request, information through communication support or accessible format.

Table Of Contents

Legend

Credit Hours (Ch): All International Year One (UTP Stage II) courses are assigned a credit hour value equivalent to the associated UM course. The credit hours for a course are expressed as a number associated with the course which indicates its relative weight. The majority of courses are delivered over one term and assigned a weight of 3 credit hours, with the exception of:

• Introduction to Psychology (PSYC1199 and PSYC1200) which is delivered over two consecutive terms and assigned a weight of 6 credit hours. It is important to note that no credit is given to a student who completes only the first term of a two-term course.

• Some courses bearing 1.5 credit hours, such as IDM020 Data Software for Business and SCM1000 Introduction to Project Management

International Year One (UTP Stage II):

I. *First Two to Four Characters*

The two, three or four characters in every course number are a shortened version of the subject of the course.

II. *Last Four Digits*

The last four digits of the course number reflect the level of contact with the subject.
For Example, **ECON 1010:** ECON is the code for Economics, 1010 indicates that it is an introductory or entry level course.

If the course requires a laboratory, this will be shown following the credit hours immediately following the title. **For example:** BIOL 1020 (lab required)

In most cases, some correlation exists between the course number and a student's year of study; that is, students in the first year of a program will generally carry course loads comprised primarily of 1000-level courses. The 2000, 3000, 4000 course numbers usually indicate the second, third, and fourth levels of university contact with a subject.

Foundation (UTP Stage I)

I. *First Three Characters*

The three characters in every course number are a shortened version of the subject of the course.

II. *Last Three Digits*

The last three digits of the course number reflect the level of contact with the subject.

For Example, Students starting their math studies at ICM in MTH 099 will also need to complete MTH 103 as MTH 099 is an introductory course.

Prerequisite:

If a course is prerequisite for a second course, the prerequisite must be met to begin the second course. To determine whether a course has a prerequisite, see in the course descriptions below.

Co-requisite:

If a first course is a co-requisite for a second course, the first course must be completed in the same term as the second course. To determine if a course has a co-requisite, see in the course descriptions below.

Support Courses

Academic English Skills (AES)

For some ICM students, English may not be their first language. In recognition of the needs of such students, ICM has a special program in place to help students address their English language needs. Students who do not satisfy the English Language requirement must enrol in AES100 – Academic English Skills, which consists of fifteen hours per week of Academic English. In addition, they will take up to two academic courses in the first term of study. This arrangement is beneficial in that it combines learning English for academic purposes with a gradual introduction to academic courses.

Endeavour

Endeavour is a non-credit course that will equip students with the skills and supports needed to get back on track academically. This course is equivalent to one academic course for the purposes of course load and is subject to a course fee. This course may be required for students who are on Academic Probation Final on a case-by-case basis. Students who are not required to complete the course will not be able to enroll in it.

ILS – Integrated Learning Skills

The Integrated Learning Skills is designed to provide students with the learning skills required to be successful in university studies in a Canadian learning environment.

The course offers students a broad introduction to the skills involved in acquiring information and displaying knowledge to others. It includes the basic knowledge skills required to successfully participate in an undergraduate degree program and to operate effectively in a university context.

Prerequisite for ARTS 1110, ENGL 1400, GMGT 1010, PHIL 1290, POLS 1502.

Note: there is no charge for this course for the first-time students enroll. If a student fails the course, they will be charged a course fee for enrolling a second time.

REBOOT

REBOOT is designed to provide student to connect with themselves, instructors and advisors, and other resources and supports and develop the skills necessary for growth in your academic and personal life.

It focuses on balancing student schedule, successful study tools, goal planning, and overall wellbeing and development. This support course if available for students in the Academic Probation process. Students who are not in the Academic Probation process will not be able to enroll in it.

International Year One (UTP Stage II) Course Descriptions

ABIZ 1000 – Introduction to Agribusiness Management Cr. Hrs. 3

Faculty: Agricultural and Food Sciences

Department: Agribusiness and Ageconomics

Introduction to management principles applied to agribusiness. Topics covered will include cooperative and corporate organizations, financial analysis, marketing, and planning. All students will prepare a business plan. Students will use spreadsheet skills with respect to be processing information and preparing forecasts.

Attributes: Recommended Intro Courses for Agriculture

ABIZ 1010 – Economics of World Food Issues Cr. Hrs. 3

Faculty: Agricultural and Food Sciences

Department: Agribusiness and Ageconomics

Determinants of global food consumption, production and the factors underpinning food security and malnutrition. The importance of international trade in balancing countries' supply and demand for food, examination of trade barriers and institutions facilitating trade.

Attributes: Recommended Intro Courses for Agriculture

ANTH 1220 – Cultural Anthropology Cr. Hrs. 3

Faculty: Arts

Department: Anthropology

The comparative study of human societies and cultures, including language, economic and political organization, family and kinship, ritual and belief systems, cultural stability, and change. Students may not hold credit for ANTH 1220 and any of ANTH 1221 or ANTH 1520.

Attributes: Social Science, Recommended Intro Courses

ARTS 1110 - Introduction to University Cr. Hrs. 3

Faculty: Arts

Department: Arts Interdisciplinary

A seminar course designed to help students make the transition from high school to university by imparting the knowledge, skills, and attitudes necessary for success in university study. Students

may not hold credit for both ARTS 1110 and ARTS 1111. This course fulfills the UM written English requirement in most programs.

Prerequisite: ILS

Attributes: Recommended Intro Courses, Written English Requirement (check Faculty requirements)

ASTR 1830 - Life in the Universe Cr. Hrs. 3

Faculty: Science

Department: Physics and Astronomy

This descriptive, general interest course explores the topic of life in the universe. Some of the following topics will be covered. (1) Some astronomy fundamentals (gravity, light). (2) The solar system (an introduction to the solar system, the formation of the solar system, the origin of life on Earth, extremophiles, the conditions needed for life, possible locations for life in the solar system). (3) Exoplanets (discovery methods, properties of detected Exoplanets, the Habitable Zone). (4) Star system formation (pre-stellar disks, planetary migration). (5) The Interstellar medium (nebulae, molecular clouds). (6) Our Milky Way galaxy as an environment for life and the Drake Equation. (7) The Search for Extra-Terrestrial Intelligence (SETI). This course is qualitative with simple arithmetic and trigonometry used occasionally.

Attributes: Science, Recommended Intro Courses

BIOL 1000 – Biology: Foundations of Life Cr. Hrs.3

Faculty: Science

Department: Biological Sciences

A course in unifying principles of biology including cell biology, bioenergetics, cell division, genetics, and evolution. May not be used as a credit in a Major or Honours program in the Biological Sciences at the UM.

Prerequisite: Biology 40S (or equivalent) and any Mathematics 40S with 50% (or equivalent MTH 103 with minimum ‘D’ grade).

Note: BIOL 1000 can be used as an elective in Arts, Business, and Science programs, except for Biological Sciences. It is also required as a pre-requisite for BIOL 1020 if students do not have Grade 12-equivalent levels of biology, mathematics and one of physics or chemistry.

Caution: Students who have the appropriate high school science and math levels and plan to take BIOL 1020 and BIOL 1030 (required for biological sciences, biotechnology, organic chemistry, biochemistry, microbiology, and agriculture) **should not take this course without speaking to a student advisor.** Students who complete both BIOL 1000 and BIOL 1020 are able to count both courses towards their 30 credit hours required to complete ICM. However, when students enter the UM, only BIOL 1020 will be held for credit as students are not able to hold credit for both BIOL 1000 and BIOL 1020 at the UM.

Attributes: Science, Recommended Intro Courses

BIOL 1020 – Biology 1: Principles and Themes Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Biological Sciences

A laboratory-based course in unifying principles of biology including cell biology, bioenergetics, cell division, genetics, and evolution. This course is intended for major and honors students in the Biological Sciences. Not to be held with BIOL 1021, BIOL 1000, BIOL 1001 (071.100), BIOE 2590 (034.259), or the former 071.125, 071.123 or 071.201.

Prerequisite: Biology 40S (or equivalent) and any Mathematics 40S with 50% (or equivalent MTH 103 with minimum 'D' grade) and one of Chemistry 40S or Physics 40S (or equivalent); or BIOL 1000 ('C'). Students who complete BIOL 1000 as the prerequisite for BIOL 1020 will not be allowed to use both BIOL 1000 and BIOL 1020 towards their degree program as the two courses may not be held for credit with one another.

Attributes: Science

BIOL 1030 – Biology 2: Biological Diversity, Function, and Interactions Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Biological Sciences

A laboratory-based course introducing biological diversity including prokaryotes, protists, fungi, plants, and animals; the form and function of plants and animals and basic concepts of ecology.

NOTE: BIOL 1030 is a prerequisite to further courses in Microbiology and to most courses in Biological Sciences. It is also intended for students proceeding to Agricultural and Food Sciences, Dentistry, Human Ecology, Medicine, Optometry, Pharmacy, Veterinary Science, Physical Education, and Science.

Prerequisite: A grade of 'C' or better in BIOL 1020.

Attributes: Science

CHEM 1100 - Introductory Chemistry 1: Atomic and Molecular Structure and Energetics Cr. Hrs. 3

Faculty: Science

Department: Chemistry

This course provides a basic understanding of the fundamentals of chemistry. By the end of this course, students will understand the periodic table, energy in chemistry, atomic and molecular structures, and the concept of chemical reactivity. May not be held with the former CHEM 1300 or CHEM 1301.

Prerequisites: one of Chemistry 40S (50%) or equivalent (CHM 100 with minimum 'D' grade) or CSKL 0100 (P), or the former CHEM 0900 (P) and one of Applied Mathematics 40S (50%), Pre-calculus Mathematics 40S (50%), the former Mathematics 40S (300) (50%), or MSKL 0100 or equivalent (MTH 103 with minimum 'D' grade). Note: A minimum grade of 'C' is required in MTH 103 to fulfill the prerequisite requirement of all other Science courses.

Attributes: Science

CHEM 1110 - Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties Cr. Hrs. 3

Faculty: Science

Department: Chemistry

This course builds upon students' foundation in chemistry to give them a better understanding of chemical reactivity and physical properties. May not be held with the former CHEM 1310 or CHEM 1311.

Prerequisite: one of CHEM 1100 (with a minimum grade of 'C') or the former CHEM 1300 (with a minimum grade of 'C'), or CHEM 1301.

Attributes: Science

CHEM 1120 - Introduction to Chemical Techniques Cr. Hrs. 3

Faculty: Science

Department: Chemistry

This course builds an understanding in chemistry through active learning in the lab. By performing lab experiments, students will gain skills in making observations, safe handling of chemicals, handling laboratory equipment, quantitative analysis, data processing, and scientific communication. These skills are fundamental for student success in chemistry. In addition, students will be given a broader appreciation of chemistry in the world by introducing them to chemical sustainability, chemical responsibility, and chemical applications. May not be held with CHEM 1122, CHEM 1126, the former CHEM 1310 or CHEM 1311.

Prerequisites: 70% in Chemistry 40S or equivalent (CHM 100 with minimum 'B' grade) and one of 70% in Pre-Calculus Mathematics 40S or equivalent (MTH 103 with minimum 'B' grade), 70% in Applied Mathematics 40S OR one of CHEM 1100 (with minimum grade 'C'), the former CHEM 1300 (with minimum grade 'C').

Attributes: Science

COMP 1010 – Introductory Computer Science 1 Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Computer Science

An introduction to computer programming using a procedural high-level language. May not be held with COMP 1011 COMP 1012 or COMP 1013.
Prerequisite: any grade 12 or Mathematics 40S, or equivalent (MTH 103 with a minimum grade of 'C') and Student must have completed one semester at ICM.

COMP 1012 - Computer Programming for Scientists and Engineers Cr. Hrs. 3 (Lab Required)

Faculty: Engineering

Department: Computer Science

An introduction to computer programming suitable for solving problems in science and engineering. Students will implement algorithms for numerical processing, statistical analysis, and matrix operations. Not to be held with COMP 1010.

Prerequisite: Mathematics 40S (high school) or equivalent (MTH 103 with a minimum grade of 'C'). Students in UTP II Science cannot take COMP 1012 in their first term, only UTP II Engineering students can take COMP 1012 in their first term.
Co-requisite: MATH 1500 (or equivalent), this means that students must take MATH 1500 prior to, or at the same time, as COMP 1012.

COMP 1020 – Introductory Computer Science 2 Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Computer Science

More features of a procedural language, elements of programming. Not to be held with COMP 1021.

Prerequisite: COMP 1010 ('C') or COMP 1012 ('C')

COMP 1500 – Computing: Ideas and Innovation Cr. Hrs. 3

Faculty: Science

Department: Computer Science

An introduction to the topics of Computer Science and problem solving. Students will learn concepts in computer programming. May not be used to fulfill computer science requirements in a Computer Science Honours, Major, General or Minor program. Not available to students who have previously obtained credit in, or are concurrently registered in any of COMP 2080, COMP 2130, COMP 2140, COMP 2150, COMP 2160 or COMP 2280.

ECON 1010 – Introduction to Microeconomic Principles Cr. Hrs. 3

Faculty: Arts

Department: Economics

This course introduces students to the study of microeconomics. Topics include demand and supply, price determination, market structure, and resource allocation; the behavior of consumers and firms; and market intervention by the government. Selected economic topics are examined such as: welfare programs, environmental regulation, the economics of discrimination, pay equity, and taxation. Students may not hold credit for ECON 1010 and any of: ECON 1011 or ECON 1210 (018.121) or ECON 1211 (018.121) or ECON 1220 (018.122) or ECON 1221 (018.122) or the former ECON 1200 (018.120) or the former ECON 1201 (018.120).

Attributes: Social Science

ECON 1020 – Introduction to Macroeconomic Principles Cr.Hrs.3

Faculty: Arts

Department: Economics

This course introduces students to the study of macroeconomics. Topics include aggregate performance and policy; the determinants of national income, employment, and the price level, the role of monetary and fiscal policies in stabilizing the economy and promoting economic growth. Students may not hold credit for ECON 1020 and any of: ECON 1021 or ECON 1210 (018.121) or ECON 1211 (018.121) or ECON 1220 (018.122) or ECON 1221 (018.122) or the former ECON 1200 (018.120) or the former ECON 1201 (018.120).

Attributes: Social Science

ENGL 1400 - Thematic Approaches to the Study of Literature Cr.Hrs.3

Faculty: Arts

Department: English, Film, and Theatre

An introduction to the study of literature, with emphasis on the development of reading and writing skills. Poetry, prose, and drama from various thematic perspectives. Texts for each

section will be announced. Students may not hold credit for both ENGL 1400 and the former ENGL 1310 (004.131). This course fulfills the UM written English requirement in most programs.

Prerequisite: ILS

Attributes: Humanities

ENG 1430 – Design in Engineering Cr. Hrs. 3 (Lab Required)

Faculty: Engineering

Department: Engineering

The creative process; the design process; working in a team. The engineering profession from the perspective of students and professionals. Academic, legal, and ethical considerations.

Prerequisites: A minimum grade of 60% in Pre-Calculus Mathematics 40S or equivalent (MTH 103 with minimum 'C' grade) or a minimum grade of "C" in one of MATH 0401, MATH 1018, MATH 1230, MATH 1500, MATH 1501, MATH 1510, MATH 1520, MATH 1690, MSKL 0100, or the former MATH 1680 and a minimum grade of 60% in Physics 40S or equivalent (PHY 100 with minimum 'C' grade) or a passing grade in PHYS 0900 or PSKL 0100; or a minimum grade of "C" in PHYS 1018, PHYS 1050, or PHYS 1051 and a minimum grade of 60% in Chemistry 40S or equivalent (CHM 100 with minimum 'C' grade) or a passing grade in CHEM 0900 or CSKL 0100; or a minimum grade of "C" in CHEM 1018, CHEM 1100, CHEM 1301, or the former CHEM 1300 or their equivalents.

ENG 1440 - Introduction to Statics Cr. Hrs. 3 (Lab Required)

Faculty: Engineering

Department: Engineering

Statics of particles; rigid bodies, equilibrium of rigid bodies; analysis of structures; distributed forces. Not to be held with ENG 1441.

Prerequisites: A minimum grade of 60% in Pre-Calculus Mathematics 40S or equivalent (MTH 103 with minimum 'C' grade) or a minimum grade of "C" in one of MATH 0401, MATH 1018, MATH 1230, MATH 1500, MATH 1501, MATH 1510, MATH 1520, MATH 1690, MSKL 0100, or the former MATH 1680) and a minimum grade of 60% in Physics 40S or equivalent (PHY 100 with minimum 'C' grade) or a passing grade in PHYS 0900 or PSKL 0100; or a minimum grade of "C" in PHYS 1018, PHYS 1050, or PHYS 1051) and a minimum grade of 60% in Chemistry 40S or equivalent (CHM 100 with minimum 'C' grade) or a passing grade in CHEM 0900 or CSKL 0100; or a minimum grade of "C" in CHEM 1018, CHEM 1100, CHEM 1301, or the former CHEM 1300) or their equivalents.

ENG 1450 - Introduction to Electrical and Computer Engineering Cr. Hrs. 3 (Lab Required)

Faculty: Engineering

Department: Engineering

Part I: Current, voltage, energy, potential, power Ohm's law; independent sources; capacitor, inductor, ideal diode, op-amp; Kirchoff's law; simple circuits (Resistive, RC, RL, OP-Amp; Diode); introduction to ac theory (Sinusoidal waveform, phase relations of voltage and current waveforms for R, L, C. RL and RC circuits).

Part II: Applications (Digital Logic, motors).

Prerequisites: A minimum grade of 60% in Pre-Calculus Mathematics 40S or equivalent (MTH 103 with minimum 'C' grade) or a minimum grade of "C" in one of MATH 0401 , MATH 1018, MATH 1230, MATH 1500, MATH 1501, MATH 1510, MATH 1520, MATH 1690, MSKL 0100, or the former MATH 1680) and a minimum grade of 60% in Physics 40S or equivalent (PHY 100 with minimum 'C' grade) or a passing grade in PHYS 0900 or PSKL 0100; or a minimum grade of "C" in PHYS 1018, PHYS 1050, or PHYS 1051) and a minimum grade of 60% in Chemistry 40S equivalent (CHM 100 with minimum 'C' grade) or a passing grade in CHEM 0900 or CSKL 0100; or a minimum grade of "C" in CHEM 1018, CHEM 1100, CHEM 1301, or the former CHEM 1300) or their equivalents.

ENG 1460 - Introduction to Thermal Sciences Cr. Hrs. 3 (Lab Required)

Faculty: Engineering

Department: Engineering – Preliminary Year

Properties of pure substances; first law for closed systems; first law for open systems; second law; examples of power cycles and refrigeration cycles.

Prerequisites: A minimum grade of 60% in Pre-Calculus Mathematics 40S equivalent (MTH 103 with minimum 'C' grade) or a minimum grade of "C" in one of MATH 0401, MATH 1018, MATH 1230, MATH 1500, MATH 1501, MATH 1510, MATH 1520, MATH 1690, MSKL 0100, or the former MATH 1680) and a minimum grade of 60% in Physics 40S equivalent (PHY 100 with minimum 'C' grade) or a passing grade in PHYS 0900 or PSKL 0100; or a minimum grade of "C" in PHYS 1018, PHYS 1050, or PHYS 1051) and a minimum grade of 60% in Chemistry 40S equivalent (CHM 100 with minimum 'C' grade) or a 81 passing grade in CHEM 0900 or CSKL 0100; or a minimum grade of "C" in CHEM 1018, CHEM 1100, CHEM 1301, or the former CHEM 1300) or their equivalents and student must have completed one semester at ICM.

ENVR 1000 – Environmental Science 1 – Concepts Cr. Hrs. 3

Faculty: Clayton H. Riddell Faculty of Environment, Earth, and Resources

Department: Environment and Geography

This course will introduce students to the conceptual framework of the environment by examining its physical, biological, and social components. General topics to be considered will include ecological principles and the responses of natural and managed systems to disturbance;

population growth; biodiversity and conservation; and environmental sustainability. Not to be held with BIOL 1340 (071.134).

GEOG 1280 – Introduction to Human Geography Cr. Hrs. 3

Faculty: Clayton H. Riddell Faculty of Environment, Earth, and Resources

Department: Environment and Geography

This course studies aspects of the human world: population, settlement, and resources. Not to be held with GEOG 1200 or GEOG 1201 or GEOG 1281.

GEOG 1290 – Introduction to Physical Geography Cr. Hrs. 3

Faculty: Clayton H. Riddell Faculty of Environment, Earth, and Resources

Department: Environment and Geography

This course studies aspects of our physical environment: climate, landforms, soils, and vegetation. Not to be held with GEOG 1291 or GEOG 1200 or GEOG 1201.

GEOL 1340 – The Dynamic Earth Cr. Hrs. 3 (Lab Required)

Faculty: Clayton H. Riddell Faculty of Environment, Earth, and Resources

Department: Geological Sciences

(Lab Required) An introduction to the dynamics of the Earth's interior and surface that created the environment in which life evolved and that continues to change the world in which people now live. Not to be held with (GEOL 1440 or 007.144) or GEOL 2250 (007.225) or (007.123) or (007.124). Recommended for students intending to proceed in further courses in the Geological Sciences.

GMGT 1010 – Business & Society Cr. Hrs. 3

Faculty: Management, I. H. Asper School of Business

Department: Business Administration

The course will provide overarching frameworks to examine the nature, role, and importance of business in society. Key internal operations of business organizations will be discussed (e.g. finance, marketing, operations), but the majority of the course examines the relationships that business firms must balance among key stakeholders in their external environment (i.e. government, owners, customers, communities, suppliers, future generations, etc.). Students will examine various institutional contexts (e.g. economic, political-legal, and socio-cultural) and

critically think about relationships between business and society, mindfully considering alternative approaches to management. Special emphasis will be placed on contemporary social issues in business (e.g. sustainable development, corporate social responsibility).

Prerequisite: ILS

Limited access requirement: During the Limited Access Registration Period (section 4.5 of the ICM Student Handbook), only ICM International Year One (UTP Stage II) Business students who have completed 12 credit hours or more with a CGPA of 2.0 will be eligible to register in GMGT 1010. After the Limited Access Registration Period has ended, all ICM International Year One (UTP Stage II) Business students who meet the course prerequisites will be eligible to register for the course if seats are available.

HNSC 1200 – Food: Facts and Fallacies Cr. Hrs. 3

Faculty: Human Ecology

Department: Human Nutritional Sciences
This course will present facts and fallacies about food from harvest to market forms.

Emphasis will be placed on technological development, consumer concerns, and factors affecting nutritional quality. Current issues related to food safety and nutritional trends will also be discussed.

HNSC 1210 – Nutrition for Health and Changing Lifestyles Cr.Hrs.3

Faculty: Human Ecology

Department: Human Nutritional Sciences

This course addresses the relationship between nutrition and health. The focus is on healthy eating and on strategies for modifying food patterns within the context of lifestyle and culture. Not to be held with 030.117 or 030.323 or HNSC 1100.

HRIR 2440 – Human Resource Management Cr. Hrs. 3

Faculty: Management, I. H. Asper School of Business

Department: Business Administration

Introduction to principles and procedures in the management of human resources. Topics include diversity management, conflict resolution, employment, law, planning, job analysis, performance appraisal, staffing, compensation, union-management relations, and current issues.

Prerequisite: ENGL 1400 or ARTS 1110 or POLS 1502 (‘C’), and GMGT 1010 (‘C’)

IDM 1010 – Communication for Career Management Cr. Hrs. 1.5

Faculty: Management, I. H. Asper School of Business

Department: Business Administration

In this course, students will build foundational skills to enable them to design a career plan and identify strategies to achieve their career goals. Topics covered will be fundamentals of career management including, career assessment, identifying strengths and motivators, career goal setting, exploring career options through employment research, résumé and cover letter writing, interview preparation, job search strategies, networking, salary negotiations, and using social media to manage one's career.

Prerequisite: ENGL 1400 or ARTS 1110 or POLS 1502 ('C'), student must have completed two semesters at ICM.

Concurrent requirement: Students must take SCM 1000 at the same time.

IDM 1020 – Data Software for Business Cr. Hrs. 1.5

Faculty: Management, I. H. Asper School of Business

Department: Business Administration

This course teaches contemporary data software skills that are widely used by businesses for managing and analyzing data. The course will focus more on advanced skills such as mathematical and statistical calculations, financial functions, pivot tables, macros, linking different data files, and creating graphs and charts.

Prerequisite: ENGL 1400 or ARTS 1110 or POLS 1502 ('C'), student must have completed two semesters at ICM.

Concurrent requirement: Students must take SCM 1000 at the same time.

KPER 1200 – Physical Activity, Health and Wellness Cr. Hrs. 3

Faculty: Kinesiology & Recreation Mgmt.

Department: Physical Education & Recreation Studies

An examination of the importance of physical activity for health and wellness. Provides an overview of the present and recommended levels of physical activity, the factors influencing participation in physical activity, Indigenous peoples' approaches to health, the role of recreation in health and wellness, and individual, organizational, and national interventions for increasing physical activity.

May not be held with the former PHED 1200 or the former PERS 1200.

KPER 1400 - Concepts of Recreation and Leisure – Cr. Hrs. 3

Faculty: Kinesiology & Recreation Mgmt.

Department: Physical Education & Recreation Studies

The nature and scope of recreation and leisure, the past influences, and implications for the future. An overview of the types and roles of various components of the leisure service delivery system.

May not be held with the former PERS 1400 or the former REC 140.

MATH 1010 - Applied Finite Mathematics Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

For Arts students needing to fill the requirement of a university-level mathematics course. Introduces students to modern applications of discrete mathematics. Topics include mathematics of finance, linear programming, graph theory, and game theory. This is a terminal course and may not be used as a prerequisite for other Mathematics courses. This course cannot be used as part of an Honours, Major, General or Minor program in the mathematical sciences. Not available to any student already holding a grade of 'C' or better in any Mathematics course with the exception of MATH 1020, FA 1020, the former MATH 1190 or MATH 1191. Not to be taken concurrently with any other Mathematics course with the exception of MATH 1020, FA 1020 or MATH 1191.

Note: (Can only be used in the Faculty of Arts if MATH 1300, MATH 1500 or STAT 1000 is not a prerequisite for your program)

No prerequisite.

MATH 1210 – Techniques of Classical and Linear Algebra Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

To introduce a variety of practical algebraic concepts and skills necessary for the study of calculus and advanced engineering mathematics. The emphasis of this course is on the development of methodology and algebraic skills necessary for the successful completion of subsequent engineering mathematics courses. This course is intended for Engineering and Geophysics students only. Not to be held with MATH 1200, MATH 1201, MATH 1300, MATH 1301, or MATH 1310.

Prerequisites: a minimum grade of 60% in Pre-calculus Mathematics 40S, or equivalent (MTH 103 with a minimum grade of 'C').

Note: Students who complete both MATH 1210 and MATH 1300 are able to count both courses towards their 30 credit hours required to complete ICM. However, when students enter the UM, only ONE will be held for credit as students are not able to hold credit for both MATH 1210 and MATH 1300 at the UM.

MATH 1240 – Elementary Discrete Mathematics Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

The course is intended for students in mathematically rich disciplines including those planning to enter an Honours or Major program in Mathematics or Statistics. An introduction to mathematical ideas, proof, techniques, and mathematical writing, explored through topics in discrete mathematics. May not be held with MATH 1241 or MATH 3120.

Prerequisite: MATH 1210 or MATH 1300 ('C') and ENGL 1400 or ARTS 1110 or POLS 1502 ('C'), student must have completed two semesters at ICM.

MATH 1300 – Vector Geometry and Linear Algebra Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

An introduction to vectors, matrices, systems of linear equations, and three-dimensional geometry. Not to be held for credit with MATH 1210, MATH 1310 (136.131), MATH 1301.

Prerequisite: Mathematics 40S (high school) or equivalent (MTH 103 with a minimum grade of 'C').

Note: Students who complete both MATH 1210 and MATH 1300 are able to count both courses towards their 30 credit hours required to complete ICM. However, when students enter the UM, only ONE will be held for credit as students are not able to hold credit for both MATH 1210 and MATH 1300 at the UM.

MATH 1500 - Introduction to Calculus Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

Differentiation and integration of elementary functions, with applications to maxima and minima, rates of change, area, and volume. Not to be held with MATH 1501, MATH 1510 (136.151), MATH 1520 (136.152), the former 136.153, the former MATH 1680 (136.168), or MATH 1690 (136.169).

Prerequisite: Mathematics 40S (high school) or equivalent (MTH 103 with a minimum grade of 'C').

MATH 1524 - Mathematics for Management and Social Sciences Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

Differentiation and integration of functions of one variable. Solving systems of linear equations, introduction to matrices. Emphasizes applications in the areas of management and social sciences. May not be held with MATH 1230, MATH 1500, MATH 1501, MATH 1510, the former MATH 1520, the former MATH 1680, or MATH 1690.

Prerequisite: Mathematics 40S (high school) or equivalent (MTH 103 with a minimum grade of 'C').

MATH 1700 – Calculus 2 Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Mathematics

Theory and techniques of integration, curve sketching, volume, arc length, surface area and partial derivatives. Not to be held with MATH 1690 (136.169), MATH 1701, MATH 1710 (136.171), or the former 136.173.

Prerequisite: A grade of 'C' or better in one of MATH 1500 or MATH 1524

MBIO 1010 – Microbiology I Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Microbiology

Topics will include the definition and history of microbiology, concepts of practical microbiology, prokaryotic cell structure, prokaryotic specialization in gene expression and transfer of genetic information, the role of microbes in environments including the human body, and applications of microbiology to food production and biotechnology.

Prerequisite: BIOL 1020 (C) and CHEM 1100 (C). May not be held with MBIO 1011 or the former MBIO 2100 (MBIO 2101) or MBIO 2110 (MBIO 2111)

MBIO 1220 – Essentials of Microbiology Cr. Hrs. 3

Faculty: Science

Department: Microbiology

An introduction to the essential principles of microbiology including immunity, with emphasis on microbial disease. Not available to students who have previously obtained credit in or are currently enrolled in MBIO 1010 or MBIO 1011 (or the former MBIO 2100 or MBIO 2101). NOTE: MBIO 1220 is intended for students planning to enter the College of Nursing or other health care or related programs. Students who have completed MBIO 1010 but wish to take MBIO 1220 to satisfy Faculty of Nursing entrance requirements must obtain departmental permission before registering for MBIO 1220. MBIO 1220 cannot be used to satisfy the requirements of the Microbiology Honours or Major degree programs. MBIO 1220 can be used as an elective course in any Science program.

MKT 2210 – Fundamentals of Marketing Cr. Hrs. 3

Faculty: Management, I. H. Asper School of Business

Department: Marketing

Analysis of marketing problems, emphasizing various alternatives available for achieving economic efficiency in the distribution process; public policy with respect to marketing.

Prerequisite: ENGL 1400 or ARTS 1110 or POLS 1502 (‘C’), student must have completed two semesters at ICM.

PHIL 1290 – Critical Thinking Cr. Hrs. 3

Faculty: Arts

Department: Philosophy

A course that helps students to think clearly and critically, and to present defend, and evaluate arguments. The instructor will discuss good and bad reasoning, everyday fallacies, some specific argument forms such as the categorical syllogism, and ways and means of defining words. Students may not hold credit for PHIL 1290 (015.129) and any of PHIL 1291 or PHIL 1320 (015.132) or PHIL 1321 (015.132).

Prerequisite: ILS

PHYS 1020 - General Physics 1 - Cr. Hrs. 3 (Lab required)

Faculty: Science

Department: Physics and Astronomy

It's a crazy world; come and find out why objects fall, slide, bounce, stick, go in circles or stay straight, float or sink, glide or crash. Why don't satellites fall to the ground? What exactly does weightlessness mean anyway? Find answers to these and other questions as you get to know Newton's and other basic laws of nature and see what makes the world go round. This course, together with the sequel PHYS 1030, is recommended for students seeking either a single, comprehensive course in Physics or entry into health science programs. It may also be used for entry into the Honours Physics program ("B+" or better) or the Major Physics program ("B" or better). May not be held with PHYS 1021, PHYS 1050, PHYS 1051, PHYS 1410, PHYS 1420.

Prerequisites: Mathematics 40S (high school) or equivalent (MTH 103 with a minimum 'B' grade) and Physics 40S (high school) or equivalent (PHY 100 with minimum 'B' grade).

PHYS 1050 – Physics 1: Mechanics Cr. Hrs. 3 (Lab required)

Faculty: Science

Department: Physics and Astronomy

It's rocket science! Mechanics is the science of describing (Kinematics) and explaining (Dynamics) motion. The basic concepts of calculus together with laws of conservation of momentum and energy are used to develop the tools required to describe, analyze, and predict the outcomes of linear and rotational motion in simple mechanical systems. A brief introduction to the Einstein theory of special relativity provides a taste of modern approaches to this subject. This course develops a strong scientific foundation for students considering a program of study in engineering or the physical sciences. Not to be held with PHYS 1020, PHYS 1021 (016.102), PHYS 1051, PHYS 1410 (016.141), PHYS 1420 (016.142), or the former courses 016.118, 016.120, or 016.127.

Prerequisites: Mathematics 40S (high school) or equivalent (MTH 103 with a minimum 'C' grade) and Physics 40S (high school) or equivalent (PHY 100 with minimum 'C' grade).

Concurrent requirement: MATH 1500 or MATH1524. This means that students must take MATH 1500 prior to, or at the same time, as PHYS 1050.

POLS 1502 Introduction to Political Studies Cr. Hrs. 3 (Lab required)

Faculty: Arts

Department: Political Studies

This course introduces students to fundamental concepts in the analysis of political phenomena, as well as problems and issues associated with the exercise of authority and the construction of

political legitimacy. Students may not hold credit for POLS 1502 and any of: POLS 1503 or the former POLS 1500 or the former POLS 1501.

Prerequisite: ILS
Attributes: Social Science

PSYC 1199/1200 - Introduction to Psychology Cr. Hrs. 6

(Note students must register in BOTH courses in consecutive semesters and will only receive credit for the course after completing PSYC 1200.)

Faculty: Arts

Department: Psychology

Basic concepts and principles of individual behaviour are examined, particularly those of human development, normal and abnormal behaviour, social psychology, learning, perception, and psychological measurement. Students may not hold credit for PSYC 1200 (017.120) and any of PSYC 1211 (017.121) or PSYC 1221 (017.122) or the former PSYC 1201 (017.120). Prerequisite for all other courses in Psychology.

Attributes: Social Science

SCM 1000 – Introduction to Project Management Cr. Hrs. 1.5

Faculty: Management, I. H. Asper School of Business

Department: Business Administration

This course introduces students to the fundamental principles of Project Management – a critical skill for anyone working in any business sector. It will discuss the importance of scope, time, cost, resource, communication, stakeholder, and risk management within a project environment. Relevant case studies will be used to provide context to the material discussed. Assignments and exercises will allow students to apply the skills learned in the course to a sample project.

Prerequisite: ENGL 1400 or ARTS 1110 or POLS 1502 ('C'), student must have completed two semesters at ICM.

Concurrent requirement: Students must take IDM 1020 at the same time.

SGMT 2200 – Global Management Cr. Hrs. 3

Faculty: Management, I. H. Asper School of Business

Department: Business Administration

Analysis of the practice of management in an international setting. Examines the cultural, political, and economic environments which influence managerial decision-making in an international context.

Prerequisite: ENGL 1400 or ARTS 1110 or POLS 1502 ('C'), and GMGT 1010 ('D')

STAT 1000 - Basic Statistical Analysis 1 Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Statistics

An introduction to the basic principles of statistics and procedures used for data analysis. Topics to be covered include gathering data, displaying and summarizing data, examining relationships between variables, sampling distributions, estimation and significance tests, inference for means. Not to be held with STAT 1001, STAT 2220 (005.222).

Prerequisites: Mathematics 40S (high school) with a '50%' or equivalent (MTH 099 with a grade of 'B+' or higher, or MTH 103 with a minimum 'D' grade).

Recommended elective: Science.

STAT 1150 – Introduction to Statistics and Computing Cr. Hrs. 3 (Lab Required)

Faculty: Science

Department: Statistics

This course is recommended for students in mathematically rich disciplines, including Statistics, Data Science, Mathematics, Actuarial Science, Computer Science, and related interdisciplinary programs. Topics to be covered include: summarizing and displaying large data sets, sampling, estimation and significance tests, probability calculations, random variables and probability distributions, introduction to regression and correlation analysis, and statistical software.

May not be held with STAT 1000, STAT 1001, STAT 2000, STAT 2001 and STAT 2220.

Prerequisites: 70% in Pre-Calculus Mathematics 40S or equivalent (MTH 103 with minimum 'B' grade) or MATH 1500 ('C'). Students must have also completed one semester at ICM.
Recommended elective: Science.

ICM Foundation (UTP Stage I) Course Descriptions

The following is a list of all ICM Foundation (UTP Stage I) classes at ICM. ICM Foundation (UTP Stage I) courses are not for university credit.

BUS 108 - Business Management

Present the fundamentals of business organization and procedures to acquaint students with management principles, business terminology, types of business organizations, and their control. The class format will include formal lectures, management games, class discussions, and case analysis.

COM 101 – Introduction to Computing

COM 101 provides an overview of the basics of a computer, essential for any computer user. This includes the program suite of Microsoft Word, Excel, and PowerPoint. It then introduces concepts of essential programming languages, such as JAVA and Python. This course is especially helpful for students with no programming experience and for those who may intend to take computer programming in the future.

Prerequisites: No course prerequisites. Students are not required to have prior programming experience to take this course.

CHM 100 - Basic Chemistry

A course designed for students with little or no background in chemistry who wish to study science or engineering streams. This course introduces chemical nomenclature, balancing chemical equations, solution chemistry, gases, electrochemistry, and heat changes in reactions.

ECN 100 – Introduction to Economics

Economics is a social science that includes the study of how individual and aggregate choices influence the marketplace and the economy. This course will cover issues of both microeconomics and macroeconomics. Microeconomics explores the way in which individual economic agents – workers, consumers, households and firms – make decisions. Macroeconomics encompasses the aggregate economy and is concerned with issues such as the total output, interest rates, inflation and unemployment. This course will attempt to combine economic theory with practical, everyday applications. The goal of this course is to give students a sufficient understanding of economic issues and problems so that students may understand the impact of government policy, economic phenomena and the choices people make.

ESR 100 - English Skills/Reading

ESR 100 offers the opportunity to develop a full range of active reading skills and acquire a broader knowledge base and vocabulary through reading and analyzing scholarly material from a variety of disciplines. Students write summaries, paragraphs, and one academic research essay. The course also employs active listening skills.

ESW 100 – English Skills/Writing

ESW 100 offers university-bound students the opportunity to improve academic essay writing skills through study and practical application of four essay organization patterns: process, comparison/contrast, cause/effect, and argumentative. Library skills for research are included.

HIS 105 – The Story of English

The purpose of this class is twofold, to introduce students to the history of the English language as a tool to explain the idiosyncrasies of the language; and to introduce students to the development of the sociopolitical institutions that have impacted the modern world.

MTH 099 – Introduction to Algebra

An introductory math course focusing on equations, factoring, rational exponents, analytical geometry, and trigonometry.

MTH 103 - Foundations of Mathematics

This course provides students with a chance to master key concepts in pre-calculus mathematics (grade 12 math) and its applications. It also introduces students to calculus in a highly supportive atmosphere to prepare them to succeed in first-year math calculus and science courses. Content includes a review of algebra, functions and graphs, composite and inverse functions, polynomial and rational functions, log and exponential functions, trigonometric and its inverse functions, sum/difference formula, and double angle formula.

Prerequisite: MTH 099 with a grade of 'C' or higher.

PHY 100 – Basic Physics

A course designed for students with little or no background in physics who wish to study science or engineering streams. This course focuses on describing the motion and interaction of objects using Newton's classical laws of motion. These descriptions will include, but will not be limited to, the important concepts of work, energy, force, and momentum. The course aims to prepare students for the ICM International Year One (UTP Stage II) PHYS 1050 Engineering Physics course.

The PHY 100 course is designed to have a rational flow towards that end so that the student perceives a clear causal chain derived from a few fundamental principles.

POL 100 – Politics and Society

Politics and Society introduces students to the nature of political studies as a discipline within the social sciences. Students enrolled in the course will learn about the social and civic nature of politics as they develop reflection, discussion, and critical thinking skills. A variety of learning activities including classroom and online discussions, debates, writing exercises, and reflective practice will be used throughout the course to develop student understanding.

PSY 101 – Foundations of Psychology & Wellness

In this course, students will come to understand themselves and others better so they can obtain satisfaction and fulfillment in their personal lives, relationships, and careers/academics. Students will study the psychology of personality and learn strategies for achieving and maintaining physical and emotional wellness. Some topics that will be cover include: coping with culture shock and homesickness, how to set goals and stick to them (with particular emphasis on studying and academic achievement), effective communication, healthy boundaries and social interactions, building resilience (how to bounce back from hard times), and much more.

STT 101 – Introduction to Statistics

The course will provide an understanding of the basic concepts of probability and statistical inference, focusing on an intuitive approach to understanding concepts and methodologies. The course will introduce statistical and critical thinking, including descriptive statistics, probability, sampling distributions, interval estimation, hypothesis testing, and regression.

SOC 105 – World Issues

Students will examine the historical, current, and future implications of world issues; analyze the effects of world issues on quality of life within different political, social, and economic systems; explore various perspectives on world issues; and gain informed opinions on world issues.