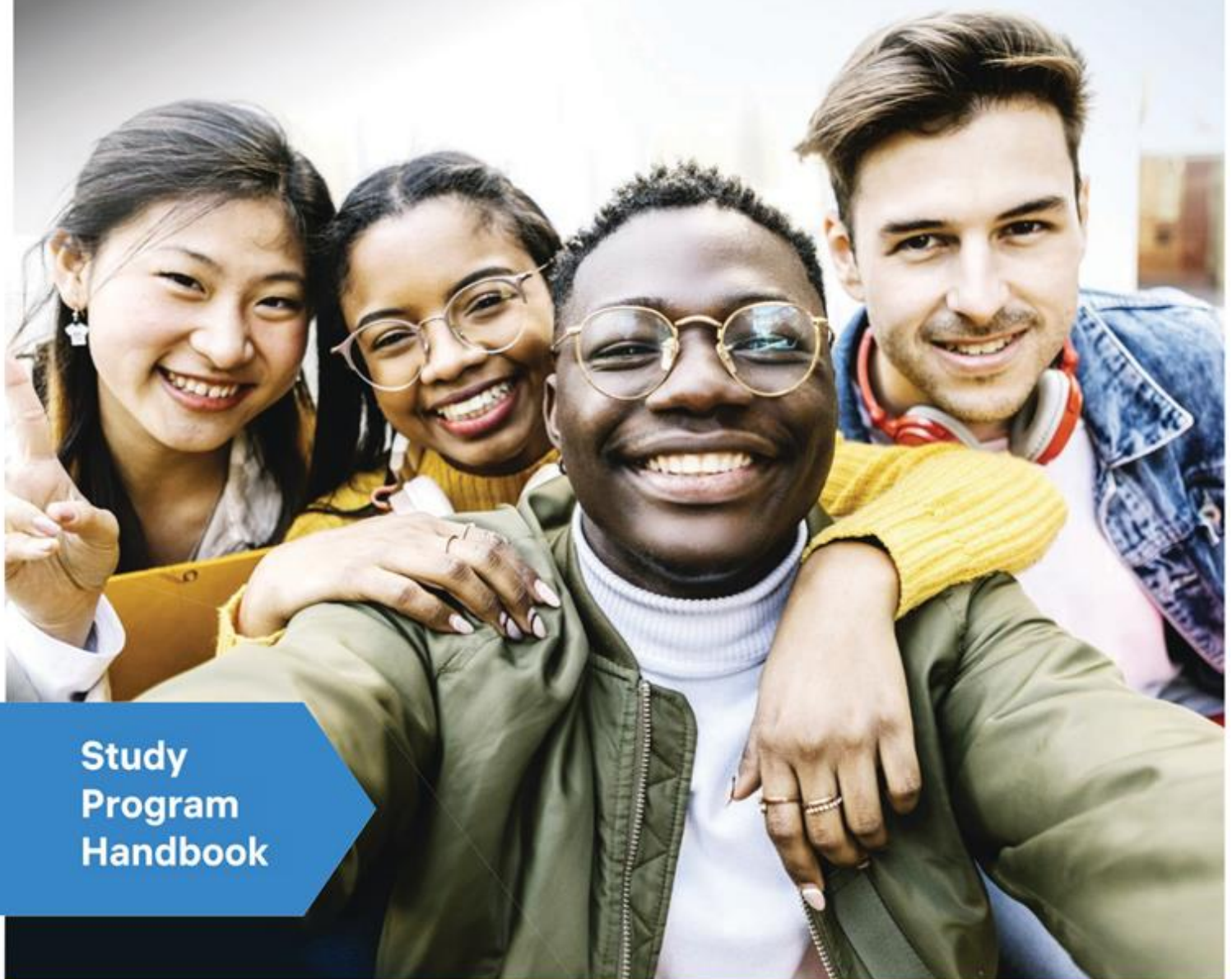




**Study
Program
Handbook**

English Foundation Year

Program Handbook 2026

constructor.university/programs/pre-degree-programs/english-foundation-year

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Basic Information

Program Name: English Foundation Year (EFY)

Type: Pre-Degree

Level: Level 0 (Pre-university)

Exit award: English Foundation Year Certificate (EFYC)

Award notes: The Program is offered in three subject areas: Technology, Science and Society at Level 0. Successful completion of the EFY program within the two different pathways Qualification and Orientation is recognized by Constructor University as an element in securing progression to several specified undergraduate degree programs. Students within the Qualification pathway are also required to pass the TestAS exam with a minimum combined standard score of 190 for progression into undergraduate degree programs.

Modes of study: All students will be full-time students. Teaching language is English, and no German knowledge is required for the studies.

Age requirements: All students must be at least 16 years old when entering the program.

Award	Standard entry requirements
English Foundation Year Certificate (EFYC)	CEFR A2/3.5 IELTS (or equivalent)
	Minimum academic requirement is a High School Diploma/Certificate recognized as a higher education entrance qualification in Germany. Recognition is determined following guidance of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany ("Kultusministerkonferenz", KMK) and the State of Bremen.

Program Overview

Educational Aims

The English Foundation Year (EFY) is a pre-degree preparatory program, enabling students from all over the world to enhance their academic capabilities, develop study and language skills appropriate to a Higher Education environment, and acclimate themselves to studying in English in another country, where cultural context is very different from their own. Alongside language and skill development, students working towards the EFY Certificate are also able to reach the CEFR B2 English level needed to study at CU. They are therefore able to move into first year degree studies with increased confidence in their university study skills and subject knowledge. Students will also be exposed to the fundamentals of computer and software literacy as an important aspect of the modern job market. The TestAS (www.testas.de) entrance exam is taken during the English Foundation Year if needed.

Program Aims

The EFY program aims to help students:

- reach the needed English language level for university studies
- develop academic reading, writing, and reasoning skills through academic English literacy;
- improve mathematical competence through intensive mathematics and statistics training;
- acquire fundamental knowledge required for their academic discipline of choice;
- train for the TestAS exam;
- develop computer literacy and coding skills;
- develop knowledge and understanding of specialized subject areas;
- accommodate themselves to study various topics in English;
- recognize what is expected of them in a university environment;
- experience student life in a university campus.

Intended Learning Outcomes

By the end of the program, students will be able to:

- accustom themselves to an international university environment;
- choose and prepare for a study direction they would like to pursue;
- apply their English skills in critical thinking, reading and writing in an academic context;
- use improved mathematical skills to solve applied problems;
- use digital devices to create, gather, analyze and present information;
- learn and work in an intercultural and diverse environment;

- reflect on their personal and academic development.



Program Structure

All EFY students study a combination of CORE and SUBJECT modules. CORE modules include English and Academic Literacy, Mathematics, and Computer and Software Literacy. Furthermore, the EFY students follow one of two pathways, depending on their academic status:

A | Qualification Pathway

The students who want to pursue an undergraduate program of choice at CU but are not academically qualified for direct entry are guided onto the Qualification Pathway (please refer to 'Regulations' below). The EFY program offers three subject areas: Technology, Science and Society, and qualification students will be placed in the subject area corresponding to their undergraduate program of choice. The Qualification pathway includes two SUBJECT modules within one subject area (one module per semester) which prepare students with the academic knowledge needed for their direction of study.

B | Orientation Pathway

The students who would like to explore one or more subject areas to get insight for the right undergraduate study program choice as well as improve their mathematical and academic

English skills, are guided to the Orientation Pathway. The Orientation Pathway allows the selection of two SUBJECT modules from two different subject areas (one module per semester), with adequate preparation of needed academic skills alongside the opportunity to explore different subject directions. These subject areas will provide students with a route to a degree at CU guided by the academic staff to assist them in their decision of study direction.

Teaching, Learning and Assessment Strategies

The EFY program implements a range of adaptive and innovative approaches to teaching, learning and assessment. Students and their personal development are at the heart of these strategies:

- A |** The EFY program offers an interactive, intensive English curriculum to bring students to the needed B2 English level for university studies. Our curriculum follows the renowned Pearson® MyGrammarLab® and Longman Academic series complemented by the versatile platform MyEnglishLab®.



Pearson's Academic English curriculum is an interactive ecosystem designed to bridge the gap between general English proficiency and the rigorous demands of higher education. It focuses on mastering the "Global Scale of English" by integrating the four core language skills (reading, writing, listening, and speaking) with a heavy emphasis on critical thinking and research literacy.

- B |** EFY students are provided with a highly supportive and academically challenging environment to develop their university language and study skills. The EFY program provides not only core, but also subject-specific modules related to the students' intended degree choices.
- C |** Students will benefit from a less formal teaching approach, involving greater interaction within classes and between students and instructors. Their confidence as independent learners is enhanced through working in discrete and small teaching class sessions where student participation is supported and encouraged, while reinforcing the studied material in parallel.
- D |** Cultural acclimation to the university's international environment is facilitated through encouragement to participate in the wider community of both CU and Bremen itself.
- E |** The EFY program aims to cater for both students who are sure of the subject they wish to follow and those who want to explore their academic orientation. For the first group, each subject area offers subject-focused modules over two semesters, which provides direct preparation for the chosen degree program. The second group has the opportunity of taking EFY modules from two different subject areas during the two semesters of the academic year.

- F |** Alongside subject and skill modules, students will benefit from complementary modules on computer and software literacy and coding, reflecting CU's vision of technologically adept student body.
- G |** Regular tutorial and study sessions provide an opportunity for students to reflect on their study progress, and for instructors to monitor this progress and provide any additional support the students might need to strengthen weaker knowledge areas.
- H |** A range of modes of assessment are applied including assignments, group and individual presentations, projects, and interim tests, to replicate the wider university experience. Midterm and final module assessments contribute to the final module grade.
- I |** Policies governing EFY modules are included in the 'Rules and Regulations' presented to the students at the beginning of the academic year during the orientation period. 'Academic Policies' and 'Entrance policies' govern the EFY program which are published and can be found on the CU website under 'Registrar Services'.

Regulations

EFY students follow a set of regulations appropriate to a Level 0 program but modelled to CU's undergraduate students. Variations are only introduced to cover the requirements of a pre-degree program, particularly around reassessment opportunities.

Qualification at Constructor University

Constructor University offers university-based *Preparatory Pathway Programs* for international applicants seeking access to higher education studies in Germany. These programs are designed to provide academic, linguistic, and methodological preparation for Bachelor's degree studies at Constructor University.

The Free Hanseatic City of Bremen is the only federal state in Germany that does not maintain an institutionalized *Studienkolleg* or a public *Feststellungsprüfung*. Instead, qualification pathways for admission to Bachelor's degree programs at higher education institutions in the State of Bremen are governed by § 33 para. 3c BremHG and the *Regulation on Higher Education Admission for International Applicants with Foreign Qualifications (Bildungsausländerhochschulzugangsverordnung – BAHZV)* of 14 September 2016 (Brem.GBl. 2016, p. 585), most recently amended by the Senate's allocation of responsibilities of 2 September 2025 (Brem.GBl. p. 674).

Within this legal framework, institution-specific preparatory programs have been established in the State of Bremen. The public universities in Bremen offer the German-language:prime: program, while Constructor University provides English-language pre-degree programs.

The *Preparatory Pathway Programs* of Constructor University are institution-based academic preparatory programs intended to facilitate progression into Bachelor's degree studies at Constructor University. Successful completion of these programs qualifies students — subject to the applicable academic and language-specific admission requirements — for entry into a Bachelor's degree program at Constructor University.

Universities in other federal states may recognize these qualification pathways as equivalent to a *Studienkolleg* qualification within the framework of their respective admission regulations; however, the final decision regarding recognition and admission rests solely with the respective institution.

Qualification within the EFY program

The qualification within the EFY program is achieved through passing the subject entrance exam (fachgebundene Zugangsprüfung), as defined in the 'Regulation on the Entrance Examination for University Admission'. As per the regulation, EFY students need the following requirements to get qualified through the entrance exam:

- 1- Passing the TestAS exam, within the respective cluster defined in the 'Regulation on the Entrance Examination for University Admission', with an overall standard score of 190.
- 2- Acquiring the B2 English proficiency by either passing the second semester English module or submitting an English certificate. Accepted certificates include:
 - TOEFL (iBT or internet based)
 - MET (Michigan English Test)
 - British Council IELTS (Int'l. English Language Testing System)
 - Cambridge EFL Examinations
 - Duolingo English Test
 - Pearson PTE Academic
- 3- Passing the subject entrance exam with a minimum grade of 45%.

The TestAS Exam

The TestAS (Test for Academic Studies / *Test für Ausländische Studierende*) is a standardized, central aptitude exam designed for non-EU international students who wish to pursue an undergraduate degree at a German university. It measures cognitive abilities and analytical skills essential for university studies. The exam can be taken in either German or English and is available in both paper-based and digital formats.

The structure of the TestAS consists of two main sections: a general Core Module and a Subject-Specific Module. The Core Module tests general intellectual capabilities like quantitative problem-solving, pattern completion, and logical reasoning. The Subject-Specific Module evaluates foundational skills tailored to intended fields of study, such as Engineering, Economics, Humanities/Social Sciences, Mathematics/Computer Science/Natural Sciences.

The TestAS exam will be offered as paper-based format on Constructor University's campus for three rounds during the academic year. Additionally, the EFY program offers training sessions to support students in successfully passing the TestAS exam. The TestAS result is included in the grade transcript and contributes to the overall GPA of EFY students with a credit component of 2.5 CP.

Progression from the EFY program

To progress from the EFY program directly into CU's undergraduate programs, students will need to pass all EFY modules with a minimum of 45%. Students enrolled on the Qualification Pathway will also need a cumulative standard TestAS score of 190 points. EFY students who do not achieve the required standard score of 190 in the TestAS will not be eligible for admission into CU's undergraduate programs. Constructor University does not accept an SAT certificate as a replacement to the TestAS certificate for EFY students. Additionally, the final examination of the second semester subject module within each subject area will serve as the "Entrance Examination" (Zugangsprüfung) for Admission to CU according to the Bildungsausländerhochschulzugangsverordnung (BAHZV).

Admission Requirements

All students who obtain a high school diploma or local equivalent prior to the start of the academic year and who possess English language skills equivalent to the A2 level of the European Framework may apply for the EFY program. The application process is selective and seeks out motivated students who show both the intellectual and social potential to thrive in a diverse international study environment.

A complete EFY application consists of the following:

- Online Application Form including a Personal Motivation Statement
- Recommendation Letter from a counsellor or teacher
- Certified Copies of School Transcripts of the last 2-3 years and a Certified Copy of the High School Certificate
- Educational History Form
- Proof of English Language Proficiency (minimum score of 3.5 on the IELTS (UK) / 30 on the Pearson PTE Academic / 120 on the Cambridge Certificate (FCE) / 2.5 on the new TOEFL / 40 on the Duolingo English test)

Please note for the Fall 2026 intake: Students who require a visa for Germany should apply by June 15th since the visa process can take up to two months. The application deadline for EU students is August 1st. Applications are evaluated on a rolling basis.

More Information and Contact

Pre-Degree Team at Constructor University Bremen

Email: pre-degree@constructor.university

Meet the EFY Team

The English Foundation Year Team at Constructor University

The core team will support students throughout the academic year with both academic and co-academic concerns.

EFY Core Team



**Hanri
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The EFY Faculty will support students throughout the academic year by means of academic advising, teaching, tutoring and guidance within their specific subject field.

EFY Faculty



**Tamara
von Drathen**

Pre-Degree Faculty

Lecturer and Academic
Advisor for subject area
Society



**Holm
Hofmann**

Pre-Degree Faculty

Lecturer of Pre-Degree
Academic English



**Muhammad
Khalid**

Pre-Degree Faculty

Lecturer and Academic
Advisor for subject area
Technology

Lecturer of Computer
Literacy



**Stephanie
Rahi**

Pre-Degree Faculty

Trainer and Administrator
of TestAS

Lecturer of Biology



**Dr. Tanya
Keni Sharp**

Pre-Degree Faculty

Lecturer of Pre-Degree
Academic English

Lecturer and Coach of Career
Development



**Dr. Sadegh
Noroozi**

Pre-Degree Faculty

Lecturer of Science and
Technology subject area

Lecturer of Mathematics and
Computer Literacy



**Dr. Jodi
Szarko**

Pre-Degree Faculty

Lecturer of Science
subject area

Lecturer of Mathematics



**Mariya
Petkova**

Pre-Degree Faculty

Lecturer of Pre-Degree
Academic English



**Georgi
Shopov**

Pre-Degree Faculty

Lecturer of Pre-Degree
Academic English



**Rida
Bano**

Pre-Degree Faculty

Trainer of TestAS

Lecturer of Mathematics



**Dr. Romaric Kana
Nguedia**

Pre-Degree Faculty

Trainer of TestAS

Lecturer of Mathematics

Curricular Structure

Overview

The EFY program offers CORE as well as SUBJECT modules. The students will follow one of two pathways according to their academic status: Qualification or Orientation Pathway.

In the Qualification Pathway, the students take all CORE and SUBJECT modules belonging to the same subject area over two semesters while training for the TestAS external exam which will be offered on campus over three rounds. In the Orientation Pathway, the students may change subject areas between semesters and take the respective CORE and SUBJECT modules. Their chosen first semester modules do not postulate any restrictions for the second semester choices unless they involve prerequisites. The subject areas in the EFY program are Technology, Science and Society. The module's credit load in the EFY program ranges from

2.5 to 7.5 credit points (CP). A total of six core modules and two subject specific modules in each pathway can be achieved.

All these modules are delivered and assessed within each semester and are available for compensation and re-assessment in line with the regulations covering studying at Level 0.

Session Types

Each EFY module typically includes three main types of session: seminars, tutorials, and study sessions.

Seminars

Three seminars per week are offered for a 7.5 CP module, two per week for a 5.0 CP modules, and one for a 2.5 CP module. The seminars are led by the lecturer and have mandatory attendance. They are used for delivery of course content and are complemented by course material posted on the Learning Management Software.

Tutorials

One 30-minute tutorial per week is offered for a 5.0 or 7.5 CP module, and a 2.5 CP IFY module includes one tutorial biweekly. Although attendance is not mandatory for tutorials, their goal is to encourage students to study regularly for the course, by giving them assignments which include material from the previous weeks. Students work on assignments in groups or individually, and the lecturer solves the assignments with the students after collecting them. The tutorial assignments are graded, and their average grade (max. 10 points) will be provided as 'bonus points' to students, to be added by the end of the semester to their overall grade.

Study Sessions

Lecturers may organize non-mandatory study sessions with the Teaching Assistant to offer further academic support for students. During a study session, students meet with the Teaching Assistant and together solve module textbook problems, course homework, or class assignments. Study sessions may also be used by late-arriving students or students who missed a class session to catch up on the class material with the help of the Teaching Assistant. Study sessions are scheduled in the week during the evening and/or on the week-ends.

Weekly Schedule

An example of an EFY student's study week is shown below for reference.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:15 - 9:30							
9:45 - 11:00	Subject Seminar	Subject Seminar			TestAS Training		
11:15 - 12:30			Computer Literacy Skills Seminar				
Lunch Break							
13:30 - 14:00	Academic English Tutorial	Subject Tutorial	Computer Literacy Tutorial	TestAS Tutorial	Mathematics Tutorial		
14:15 - 15:30		English Seminar	English Seminar	English Seminar			
15:45 - 17:00			Mathematics Seminar	Mathematics Seminar			
17:15 - 18:30							
19:00 - 20:00	Academic English Study Session	Mathematics Study Session	Subject Study Session	Computer Literacy Study Session	TestAS Study Session		

Core Modules

Fall Semester

English Literacy (7.5 credit points)

The first-semester module will focus on building essential English language skills with the students to bring them to a B1 CEFR level. Listening and reading comprehension skills will be developed, alongside advanced grammatical and vocabulary knowledge. At a later stage, students will learn how to progress from a sentence to a paragraph to a basic essay structure. They will also be engaged in oral communication drills and exercises.

Basic Mathematics (5.0 credit points)

Students within the Society subject area will go through an overview of introductory algebra and arithmetic in order to gain the needed knowledge for further modules within the EFY and future UGE programs. Topics include number operations, equations and notion of functions. The interactive module further prepares students to solve mathematical problems in an applied fashion.

Advanced Mathematics (5.0 credit points)

The module is intended for students within the Science and Technology subject areas and prepares them for the consecutive Spring semester module Pure Mathematics. This module

reviews essential topics in introductory Algebra and Calculus, with focus on linear and quadratic equations and functions as well as concepts in trigonometry and vector operations. These topics are an integral part of the preparatory curriculum for the students concerned.

Computational Thinking and Coding (2.5 credit points)

This module allows 'Science' and 'Technology' students to analyze problems through engagement in computational design and thinking. Students will identify, explore, and clarify technological information and use that knowledge in various applied situations. They will get informed about modern and in-demand programming languages in the world. The module further helps with experimental modelling and working with digital tools and includes basic concepts of Python.

Applied Excel Literacy (2.5 credit points)

The use of Microsoft Excel is integral in the different disciplines within the Society subject area. Hence, this introductory module aims to expose students to the main functionalities needed of Excel within the area of data analysis and visualization. In addition, the students will apply their learned knowledge of the software to different types of examples.

TestAS Training

TestAS Training is offered in both Fall and Spring semesters and is designed to prepare EFY students enrolled in the Qualification pathway for the TestAS external exam. Students have three opportunities to take the TestAS qualifying exam on campus. During the TestAS training sessions, students are taught the methodology of approaching and answering the various types of questions within the TestAS exam, supplemented by practice and mock tests. Students should have acquired skills and subject knowledge necessary for the Test-AS exam from their high-school studies. Attendance is mandatory for this module; missing the TestAS training significantly decreases the chances of passing the TestAS exam.

Spring Semester

Academic Literacy B2 CEFR (7.5 credit points)

The second-semester module will focus on developing students in applying English for university studies, especially in academic writing and presentation skills. Students will learn the different types of essays, how to read critically from different source texts and properly cite them in an academic manuscript. Oral communication is further developed in the academic context through preparation and delivery of a topic-based presentation.

Foundation Statistics (5.0 credit points)

This second semester module is mandatory for students continuing their studies within the subject area 'Society', particularly in the areas of business and management, logistics, and social sciences and humanities, as fundamental knowledge in statistics is essential for degrees within these areas. The module covers main topics in statistical analysis and probability, sampling, and confidence limits. The study sessions include extensive practice of applied statistical concepts and models.

Pure Mathematics (5.0 credit points)

This second semester module is a follow-up to the Advanced Mathematics module for students in the subject areas Science and Technology. Since developed mathematical skills are essential for students in these subject areas, Pure Mathematics provides them with the needed knowledge and tools to be properly prepared for the respective undergraduate degrees at CU. The course covers essential topics in college-level algebra and calculus, and the complementary tutorials and study sessions provide extensive practice on problem solving skills.

Fundamentals of C and C++ (2.5 credit points)

In this module students within the Technology subject area will understand and apply fundamental programming concepts in C and C++ for their high importance as programming languages. They will learn how to write, compile, and debug simple programs in both languages by developing and managing basic projects as well as demonstrating problem-solving skills. Analysis and optimization of simple code for efficiency and performance will also be tackled. Students will also collaborate on introductory projects.

Python for Science (2.5 credit points)

This course introduces students within the Science subject area to the scientific disciplines in programming using Python, focusing on foundational computational skills that support problem solving, data handling, and analysis in scientific contexts. No solid prior programming experience is required, and the module emphasizes practical exercises, clarity, and gradual skill development. It aims to prepare students for applying programming in the disciplines of physics, chemistry, and biology.

Introduction to R and SPSS (2.5 credit points)

This module introduces students to data analysis for Social Sciences and related disciplines, using SPSS and R in parallel. It develops fundamental data literacy, statistical reasoning, and the ability to manage, analyze, and interpret real-world datasets. The course is designed for beginners and combines graphical and coding-based analytical methods.

Modules by Subject Area

Subject Area TECHNOLOGY

Computer Systems (5.0 credit points)

This module introduces students to the essential concepts of computer science and computer systems. The primary objective is to provide students with a thorough understanding of how computer systems function, encompassing both hardware and software components, as well as the fundamental principles of computing. Students will gain insights into the structure and operation of computer systems, which will serve as a critical foundation for their subsequent studies in relevant undergraduate programs.

Fundamentals of Programming with Python 3 (5.0 credit points)

Students applying to CS, RIS, SDT or MMDA are introduced to programming through the Python 3 language. The module aims to develop foundational programming skills that are essential for further academic pursuits in computer science and related disciplines. Through this module, students will learn the core principles of programming, gain practical coding experience, and build a strong basis for more advanced studies in the field.

Foundation Physics (5.0 credit points)

For students applying to ECE, physics is an essential part of their knowledge, and a basic knowledge of relevant topics in physics is a requirement for students to start their undergraduate studies at CU within an Engineering-based program. This second semester module provides the students with such knowledge and covers areas within mechanics and optics. The study sessions and tutorials complement the module with extensive problem-solving practice.

Subject Area SCIENCE

Foundation Chemistry (5.0 credit points)

Chemistry is an essential discipline for any student wanting to continue their studies in natural, physical, and biological sciences at CU. The first semester module Foundation Chemistry hence provides the students within the subject area 'Science' with an overall and basic knowledge of the various fields within chemistry. Topics covered include fundamental aspects of general, analytical, inorganic, and physical chemistry. The study sessions and tutorials complement the module with extensive problem-solving practice.

Foundation Biology (5.0 credit points)

This course offers for students applying to BCCB, CBT, or MCCB an introduction to the fundamentals of human biology starting with cell structure, heredity, diversity, and energy transfer. It focuses on chemical foundations such as macronutrients and metabolism. The course discusses the maintenance of the human body by examining the cardiovascular, respiratory, and lymphatic systems. It also discusses reproduction and development, in addition to basic genetic concepts.

Foundation Physics (5.0 credit points)

For students applying to ESSMER or PHDS, physics is a complementary discipline in science, and a basic knowledge of relevant topics in physics is a requirement for starting their undergraduate studies at CU. The second semester module Foundation Physics provides the students with such knowledge and covers areas within mechanics and optics. The study sessions and tutorials complement the module with extensive problem-solving practice.

Subject Area SOCIETY

Foundation Economics (5.0 credit points)

This module introduces students to the core principles of microeconomics and macroeconomics, providing a solid foundation in economic theory and its practical application. It examines how individuals, firms and governments make decisions under conditions of scarcity and how these decisions influence markets and overall economic performance.

Foundation Business and Management (5.0 credit points)

The module introduces students applying to IBA, GEM, IEM, or MDDA to the internal and external context of business practice and management. It delves into key business aspects including strategic management, marketing, human resources, crisis management, globalization, and social responsibility. It also aims to provide students with the appropriate foundation of business theory and concepts that will enable them to be successful in their later related undergraduate studies in the fields of business and management.

Introduction to Social Sciences (5.0 credit points)

The overall aim of this module is to provide students with a general introduction to social sciences with a focus on the areas of sociology, economics, politics, and international relations. It aims to provide students with the appropriate foundation in social sciences theories and concepts as well as their applicability in relation to relevant fields of social sciences.

Schematic Study Plan

English Foundation Year Qualification Pathway - Choose one specific subject area						
Fall Semester	Technology		Science		Society	
	English Literacy	m, 7.5 CP	English Literacy	m, 7.5 CP	English Literacy	m, 7.5 CP
	Advanced Mathematics	m, 5.0 CP	Advanced Mathematics	m, 5.0 CP	Basic Mathematics	m, 5.0 CP
	Computational Thinking and Coding	m, 2.5 CP	Computational Thinking and Coding	m, 2.5 CP	Applied Excel Literacy	m, 2.5 CP
	TestAS Training I	m, 0.0 CP	TestAS Training I	m, 0.0 CP	TestAS Training I	m, 0.0 CP
Spring Semester	Computer Systems	m, 5.0 CP	Foundation Chemistry	m, 5.0 CP	Foundation Economics	m, 5.0 CP
	Academic Literacy B2 CEFR	m, 7.5 CP	Academic Literacy B2 CEFR	m, 7.5 CP	Academic Literacy B2 CEFR	m, 7.5 CP
	Pure Mathematics	m, 5.0 CP	Pure Mathematics	m, 5.0 CP	Foundation Statistics	m, 5.0 CP
	Fundamentals of C and C++	m, 2.5 CP	Python for Science	m, 2.5 CP	Introduction to R and SPSS	m, 2.5 CP
	TestAS Training II	e, 0.0 CP	TestAS Training II	e, 0.0 CP	TestAS Training II	e, 0.0 CP
	Fundamentals of Programming with Python 3	me, 5.0 CP	Foundation Biology	me, 5.0 CP	Foundation Business and Management	me, 5.0 CP
	Foundation Physics	me, 5.0 CP	Foundation Physics	me, 5.0 CP	Introduction to Social Sciences	me, 5.0 CP

(Abbreviations: m = mandatory, me = mandatory elective, e = elective, CP = credit points)

English Foundation Year Orientation Pathway - Choose up to two subject areas						
Fall Semester	Technology		Science		Society	
	English Literacy	m, 7.5 CP	English Literacy	m, 7.5 CP	English Literacy	m, 7.5 CP
	Advanced Mathematics	m, 5.0 CP	Advanced Mathematics	m, 5.0 CP	Basic Mathematics	m, 5.0 CP
	Computational Thinking and Coding	m, 2.5 CP	Computational Thinking and Coding	m, 2.5 CP	Applied Excel Literacy	m, 2.5 CP
Spring Semester	Computer Systems	m, 5.0 CP	Foundation Chemistry	m, 5.0 CP	Foundation Economics	m, 5.0 CP
	Academic Literacy B2 CEFR	m, 7.5 CP	Academic Literacy B2 CEFR	m, 7.5 CP	Academic Literacy B2 CEFR	m, 7.5 CP
	Pure Mathematics	m, 5.0 CP	Pure Mathematics	m, 5.0 CP	Foundation Statistics	m, 5.0 CP
	Fundamentals of C and C++	m, 2.5 CP	Python for Science	m, 2.5 CP	Introduction to R and SPSS	m, 2.5 CP
	Fundamentals of Programming with Python 3	me, 5.0 CP	Foundation Biology	me, 5.0 CP	Foundation Business and Management	me, 5.0 CP
	Foundation Physics	me, 5.0 CP	Foundation Physics	me, 5.0 CP	Introduction to Social Sciences	me, 5.0 CP

(Abbreviations: m = mandatory, me = mandatory elective, CP = credit points)

Module Descriptions

Core Modules

Fall Semester

Module Name ENGLISH LITERACY			Module Code PD-C-1003	Level FOUNDATION	CP 7.5
Module Components					
Number		Name		Type	CP
PD-C-1003		English Literacy		Seminar	7.5
Module Coordinator Head of Academics		Program Affiliation - English Foundation Year - CORE module Semester one			Mandatory Status Mandatory for all EFY students
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma		Co-requisites ☒ None	Knowledge, Abilities, or Skills - English level at CEFR A2 - Basic English language skills	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (52.5 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (128 hours)
			Duration One semester	Workload 187.5 hours	
Recommendations for Preparation Students taking this module will be assessed for their English proficiency at the beginning of the semester. Preparation prior to arrival includes a list of topics to be covered during the module.					
Content and Educational Aims The aim of this module is to develop the English language skills necessary for a successful transition to the Academic Literacy module. It also raises students' awareness of the critical importance of English competence in their academic studies. Detailed topics are outlined in the module syllabus.					
Intended Learning Outcomes By the end of this module, students will be able to: - Successfully apply basic writing conventions - Produce simple connected text on familiar topics - Give brief reasons and explanations for opinions and plans - Understand the main points of texts on matters encountered in familiar contexts - Read straightforward factual texts with a satisfactory level of comprehension - Extract essential information from simple reports, messages, and audio recordings - Follow straightforward instructions - Engage in polite conversations set in social settings - Talk about relatable, everyday topics – such as school, hobbies, and lifestyle habits - Communicate with reasonable accuracy in familiar contexts using controlled grammatical conventions					
Usability and Relationship to other Modules English Literacy prepares students for studies in other modules as well as for Academic Literacy.					

Assessment

Midterm and Final Assessment

Weight: 40% Midterm Exam

60% Final Exam

A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.



Module Name BASIC MATHEMATICS		Module Code(s) PD-C-2003	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-C-2003	Basic Mathematics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester One		Mandatory Status Mandatory for SOCIETY subject area	
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills Basic knowledge of Mathematics on the high school level	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation Students should review their basic mathematical skills from high school to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module introduces the fundamental and basic aspects of mathematical concepts required for students interested in continuing their studies within business and humanities. The module content covers main areas of introductory algebra. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Perform basic mathematical operations. - Apply their knowledge in the most efficient way. - Learn how to use mathematics to model and solve everyday problems. - Understand the concepts of rational and irrational numbers. - Solve linear and quadratic equations. - Graph linear equations and inequalities. - Know the basics of probability. - Develop and factorize polynomial and rational expressions. - Solve systems of linear equations. - Work with roots and radicals.				
Usability and Relationship to other Modules Basic Mathematics prepares students for the following Mathematics CORE module 'Foundation Statistics', it is also providing the fundamental mathematical tools for other modules within the 'Society' subject area.				
Assessment Midterm and Final Exam Weight: 40% Midterm Exam 60% Final Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name ADVANCED MATHEMATICS		Module Code PD-C-2001	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-C-2001	Advanced Mathematics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester One		Mandatory Status Mandatory for SCIENCE and TECHNOLOGY subject areas.	
Entry Requirements Pre-requisites ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills Advanced knowledge of Mathematics at the high school level	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One Semester	Workload 125 hours
Recommendations for Preparation Students should review their mathematical skills from high school to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module introduces the mathematical knowledge needed for students interested in continuing their studies within sciences, engineering, and technology. The module content covers the main areas in introductory algebra and calculus. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Perform advanced mathematical operations. - Apply their knowledge in the most efficient way. - Learn how to use mathematics to model and solve everyday problems. - Solve and graph linear and quadratic equations and inequalities. - Identify polynomial functions. - Factor quadratic functions using different methods. - Explain roots, exponentials, and logarithms. - Use the unit circle approach to explain and graph trigonometric functions. - Work with trigonometric equations and identities. - Perform vector operations.				
Usability and Relationship to other Modules Advanced Mathematics prepares students for the following Mathematics CORE module 'Pure Mathematics', it also provides the fundamental mathematical tools for other modules within the 'Science' and 'Technology' subject areas.				
Assessment Midterm and Final Exam Weight: 40% Midterm Exam 60% Final Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name		Module Code		Level		CP			
COMPUTATIONAL THINKING AND CODING		PD-C-3001		FOUNDATION		2.5			
Module Components									
Number		Name			Type		CP		
PD-C-3001		Computational Thinking and Coding			Seminar		2.5		
Module Coordinator		Program Affiliation			Mandatory Status				
Head of Academics		▪ Foundation Year ▪ CORE module Semester One			Mandatory for SCIENCE and TECHNOLOGY subject areas				
Entry Requirements		Co-requisites		Knowledge, Abilities, or Skills		Frequency		Forms of Learning and Teaching	
Pre-requisites						Workload			
☑ High School Diploma		☑ None		Basic understanding of computer hardware and software applications		Once a year, Fall semester		▪ Tutor-led but interactive classes (21 hours) ▪ Tutor-led Tutorials (7 hours) ▪ Directed and independent learning (34.5 hours)	
						Duration			
						One semester		62.5 hours	
Recommendations for Preparation									
Students enrolled in this module may lack prior formal instruction in the utilization of computers and software suitable for academic pursuits. Initial classes in this module will afford students the chance to showcase their proficiency and understanding of this subject matter.									
Content and Educational Aims									
The module equips students with essential computational tools necessary for any major and covers fundamental computing concepts and requirements, catering to students interested in furthering their studies across various subject areas. Detailed topics are included in the module's syllabus.									
Intended Learning Outcomes									
By the end of this module, students will be able to									
▪ Define the importance of computational thinking.									
▪ Improve their ability to develop effective algorithms.									
▪ Break down complex problems into smaller, manageable parts.									
▪ Identify patterns and regularities in data and processes.									
▪ Simplify complex systems by focusing on essential details.									
▪ Design step-by-step instructions to solve problems.									
▪ Understand variables, data types, and operators.									
▪ Control structures: conditionals and loops.									
▪ Learn a new language on a basic level.									
▪ Design a new programming language on a basic level.									
Usability and Relationship to other Modules									
The module 'Computational Thinking and Coding' is a universal module which relates to all subject areas, as computational thinking and coding is now being used in all disciplines and areas.									
Assessment									
Midterm and Final Exam									
Weight: 40% Midterm Written Exam									
60% Final Written Exam									
A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.									

Module Name APPLIED EXCEL LITERACY		Module Code PD-C-3003	Level (type) FOUNDATION	CP 2.5
Module Components				
Number	Name		Type	CP
PD-C-3003	Applied Excel Literacy		Seminar	2.5
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester one		Mandatory Status Mandatory for subject area SOCIETY	
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma ☐ None	Co-requisites ☐ ☒ None	Knowledge, Abilities, or Skills A basic background in mathematics Ability to research, evaluate and express opinions	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (21 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (34.5 hours)
			Duration One semester	Workload 62.5 hours
Recommendations for Preparation To help students gain a basic understanding of the subject area, a reading list to help prepare them for the topics to be studied during the module will be provided				
Content and Educational Aims The module introduces the fundamentals of the Microsoft Excel software and its applications. The module will ensure students apply the various functionalities of the software through practical examples. It further aims to provide students with adequate Excel literacy related to their undergraduate studies.				
Intended Learning Outcomes By the end of this module, students will be able to: - Understand the Excel interface and efficiently navigate workbooks and worksheets. - Create, organize, and manage worksheets for different applications. - Enter, edit, and format data. - Distinguish between formulas and functions. - Perform calculations using common mathematical, statistical, and logical functions. - Apply data management tools such as sorting, filtering, and data validation. - Use relative, absolute, and mixed cell references in spreadsheet calculations. - Analyze and summarize datasets using tables and pivot tables. - Create and customize charts and pivot charts to visualize data effectively. - Interpret and communicate information through spreadsheet-based analysis and applied examples.				
Usability and Relationship to other Modules Applied Excel Literacy provides appropriate preparation for students wishing to apply Excel in their studies within areas of Business, Industrial Engineering, and Social Sciences.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Exam 60% Final Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name TESTAS TRAINING I & II			Module Code PD-C-4001 PD-C-4002	Level FOUNDATION	CP 0.0
Module Components					
<i>Number</i>		<i>Name</i>		<i>Type</i>	<i>CP</i>
PD-C-4001 PD-C-4002		TestAS Training I TestAS Training II		Seminar	0.0
Module Coordinator Head of Academics	Program Affiliation Foundation Year Common module for all subject areas			Mandatory Status Mandatory for Qualification students	
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma	<i>Co-requisites</i> ☒ None	<i>Knowledge, Abilities, or Skills</i> Basic high school skills	Frequency Twice a year, Fall/Spring semester	Forms of Learning and Teaching Tutor-led training (21 hours) Directed and independent training (41.5 hours)	
			Duration One semester	Workload 62.5 hours	
Recommendations for Preparation Students should review their overall high school knowledge as a general preparation for the module.					
Content and Educational Aims This module prepares all students for the TestAS exam which is a needed component for admissions to undergraduate studies at Constructor University.					
Intended Learning Outcomes By the end of this module, students will be able to ■ Prepare properly for the TestAS entrance exam ■ Get informed about the different modules and subjects within the test ■ Practice TestAS questions through training sessions ■ Review the main information needed for the TestAS exam ■ Train for the core module tests ■ Train for the subject-specific module tests in the different areas according to subject direction					
Usability and Relationship to other Modules The TestAS Training module is essential for ‘Qualification’ students of all subject areas to pass the entrance exam to undergraduate studies at Constructor University.					
Assessment The TestAS training prepares students for one of the following TestAS entrance exam modules: PD-TestAS-ECO - TestAS: Economics PD-TestAS-HCS - TestAS: Humanities, Cultural Studies and Social Sciences PD-TestAS-MCN - TestAS: Mathematics, Computer Science and Natural Sciences PD-TestAS-ENG - TestAS: Engineering					

Spring Semester

Module Name ACADEMIC LITERACY B2 CEFR			Module Code PD-C-1004	Level FOUNDATION	CP 7.5
Module Components					
Number		Name		Type	CP
		Academic Literacy B2 CEFR		Seminar	7.5
Module Coordinator Head of Academics		Program Affiliation - English Foundation Year - CORE module Semester two		Mandatory Status Mandatory for all EFY students	
Entry Requirements <i>Pre-requisites</i> ☒ None	Co-requisites ☒ None	Knowledge, Abilities, or Skills English language skills from English Literacy	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (52.5 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (128 hours)	
			Duration One semester	Workload 187.5 hours	
Recommendations for Preparation Preparation prior to commencing the module would include a list of topics to be studied and a supporting reading list.					
Content and Educational Aims The module is designed to develop academic study skills to the standard required for undergraduate study. The development of writing, listening, reading, and speaking skills will include a discussion of essay structure, plagiarism, critical evaluation of specific information, and the development of presentational skills and seminar discussions. Detailed topics are included in the module's syllabus.					
Intended Learning Outcomes By the end of this module, students will be able to: - Successfully apply academic writing conventions - Produce a clear, detailed text on a wide range of subjects - Describe events and processes - Explain a viewpoint on a topic, discussing the advantages and disadvantages of various options - Develop and support an argument - Understand the main ideas of complex texts on both familiar and abstract topics - Interact with a degree of fluency and spontaneity on topics that are both familiar and abstract - Understand documentaries and other recorded material on a variety of social and academic topics - Scan quickly through long and complex texts and identify the relevance of sections for the task at hand - Cite and refer to academic sources in both written and oral form					
Usability and Relationship to other Modules Academic Literacy prepares students for other modules and their undergraduate studies.					
Assessment Midterm and Final Assessment Weight: 40% Midterm Assignment + Presentation 60% Final Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.					

Module Name FOUNDATION STATISTICS		Module Code PD-C-2004	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-C-2004	Foundation Statistics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester Two		Mandatory Status Mandatory for SOCIETY subject area	
	Entry Requirements Pre-requisites ☒ None	Co-requisites ☒ None	Knowledge, Abilities, or Skills Mathematical knowledge acquired from the module 'Basic Mathematics'	Frequency Once a year, Spring semester
Duration One semester				Workload 125 hours
Recommendations for Preparation Students need to review the mathematical knowledge acquired from the course 'Basic Mathematics'. Course slides and book chapters are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module introduces the fundamental aspects of statistical concepts for students interested in continuing their studies in the disciplines within business, economics, and social sciences. The module content covers main areas in statistical analysis, probability, and sampling methods. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Perform basic statistical operations. - Apply their knowledge in the most efficient way through solving problems. - Use statistics in applied case studies. - Prepare reports for statistical projects. - Analyze datasets through respective distribution tables and charts. - Use discrete and continuous probability distributions. - Explain the different types of sampling methods and their practicality. - Use tests to evaluate the confidence levels of sampling methods. - Make decisions based on statistical calculations. - Prepare properly for an undergraduate program which includes statistical methods.				
Usability and Relationship to other Modules Foundation Statistics is a CORE module for all students who are interested in continuing their studies in the different areas of business, social science, and humanities. It enables the students with the fundamental needed knowledge in statistics to enhance their performance within relevant modules.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Assignment + Presentation 60% Final Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name PURE MATHEMATICS		Module Code PD-C-2002	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-C-2002	Pure Mathematics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester Two		Mandatory Status Mandatory for SCIENCE and TECHNOLOGY subject areas	
Entry Requirements Pre-requisites ☒ None	Co-requisites ☒ None	Knowledge, Abilities, or Skills Mathematical skills gained from the course 'Advanced Mathematics'	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation Students should review their mathematical skills from 'Advanced Mathematics' to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module follows on 'Advanced Mathematics' and develops the fundamental mathematical skills for students interested in continuing their studies within sciences, engineering, and technology. The module content covers further areas in introductory algebra and calculus. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Perform advanced mathematical operations. - Apply their knowledge in the most efficient way. - Learn how to use mathematics to model and solve everyday problems. - Factor polynomial functions using synthetic division. - Graph polynomial and rational functions and inequalities. - Solve systems of equations using various methods. - Perform matrix operations. - Determine limits of various types of functions. - Derive and perform derivative operations on functions. - Apply differentiation and integration to mathematical problems and models.				
Usability and Relationship to other Modules Pure Mathematics provides students with advanced mathematical tools within disciplines which require developed mathematical knowledge, it also prepares students for the first-year undergraduate modules within the areas of sciences, engineering, and technology.				
Assessment Type: Midterm and Final Exam Weight: 40% Midterm Exam 60% Final Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name FUNDAMENTALS OF C AND C++		Module Code PD-C-3002	Level FOUNDATION	CP 2.5
Module Components				
Number	Name		Type	CP
PD-C-3002	Fundamentals of C and C++		Seminar	2.5
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester Two		Mandatory Status Mandatory for TECHNOLOGY subject area	
Entry Requirements Pre-requisites ☒ None	Co-requisites ☒ None	Knowledge, Abilities, or Skills Basic practical skills in programming language	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (21 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (34.5 hours)
			Duration One semester	Workload 62.5 hours
Recommendations for Preparation To enhance their programming skills, students are encouraged to revisit and reinforce their computational thinking abilities, which involve problem-solving in abstract manners. In preparation for the class, students are provided with course materials and book chapters, enabling them to come to class fully prepared.				
Content and Educational Aims The module aims to instill confidence in students in their ability to write small programs to accomplish specific tasks. The module covers key aspects of programming languages C and C++. Detailed topics are listed in the module syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand and apply fundamental programming concepts in C and C++. - Write, compile, and debug simple programs in both languages. - Use basic control structures such as loops and conditionals effectively. - Implement elementary object-oriented programming principles in C++. - Develop and manage basic projects, demonstrating problem-solving skills. - Gain familiarity with using integrated development environments (IDEs) for C and C++. - Analyze and optimize simple code for efficiency and performance. - Employ fundamental data structures such as arrays and linked lists. - Understand and apply basic pointers and memory management techniques. - Collaborate on introductory coding projects using version control systems.				
Usability and Relationship to other Modules Fundamentals of C and C++ is broadly relevant, as part of essential skills across subject areas and disciplines in Technology.				
Assessment Midterm and Final Exam Weight: 40% Midterm Written Exam 60% Final Written Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name PYTHON FOR SCIENCE			Module Code PD-C-3005	Level FOUNDATION	CP 2.5
Module Components					
Number	Name			Type	CP
PD-C-3005	Python for Science			Seminar	2.5
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester Two			Mandatory Status Mandatory for SCIENCE subject area	
Entry Requirements Pre-requisites ☒ None	Co-requisites ☒ None	Knowledge, Abilities, or Skills Programming skills from Computational Thinking and Coding	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (21 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (34.5 hours)	
			Duration One semester	Workload 62.5 hours	
Recommendations for Preparation To enhance their programming skills, students are encouraged to revisit and reinforce their computational thinking abilities, which involve problem-solving in abstract manners. In preparation for the class, students are provided with course materials and book chapters, enabling them to come to class fully prepared.					
Content and Educational Aims Throughout the module, students will develop practical programming skills by solving real-world scientific and computational problems using Python. Detailed topics are included in the module syllabus.					
Intended Learning Outcomes By the end of this module, students will be able to - Construct Python programs to solve scientific and problems using structured programming. - Design, implement, and evaluate algorithms for computational problem solving. - Manipulate scientific data using Python data types, data structures, and built-in functions. - Create modular applications by employing user-defined functions and reusable code components. - Manage scientific data through reading, processing, and writing files in common formats. - Employ object-oriented programming concepts to build reusable software solutions. - Handle program errors using exception handling and debugging techniques to improve software reliability. - Integrate Python modules and libraries to support scientific computing tasks. - Produce simple graphical applications and visualizations to communicate computational results. - Apply programming practices in well-structured, documented, tested, and maintainable Python code					
Usability and Relationship to other Modules The module Python for Science supports learning across various sciences subject areas. Programming skills are essential in science, particularly for data analysis, modelling, simulation, and automation.					
Assessment Midterm and Final Exam Weight: 40% Midterm Written Exam 60% Final Written Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.					

Module Name INTRODUCTION TO R AND SPSS		Module Code PD-C-3006	Level FOUNDATION	CP 2.5
Module Components				
Number	Name		Type	CP
PD-C-3006	Introduction to R and SPSS		Seminar	2.5
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - CORE module Semester Two		Mandatory Status Mandatory for SOCIETY Subject Area	
Entry Requirements <i>Pre-requisites</i> ☒ None	Co-requisites ☐ None	Knowledge, Abilities, or Skills Basic understanding of data analysis	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (21 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (34.5 hours)
			Duration One semester	Workload 62.5 hours
Recommendations for Preparation Students enrolled in this module may have little prior experience with statistical software or quantitative data analysis. To prepare, they are encouraged to review basic mathematics and spreadsheet skills and are provided with sample datasets and reading materials so they can come to the class ready to work hands-on in R and SPSS.				
Content and Educational Aims The module equips students with essential statistical computing tools necessary for any major and covers fundamental data analysis concepts and requirements using R and SPSS, catering to students interested in furthering their studies across various subject areas. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Define the importance of computational thinking. - Improve their ability to develop effective algorithms. - Break down complex problems into smaller, manageable parts. - Identify patterns and regularities in data and processes. - Simplify complex systems by focusing on essential details. - Design step-by-step instructions to solve problems. - Understand variables, data types, and operators. - Apply inferential techniques: correlation, t-test, and regression. - Learn a statistical software environment on a basic level. - Interpret and communicate statistical output on a basic level.				
Usability and Relationship to other Modules The module 'Introduction to R and SPSS' is a universal module which relates to all subject areas, as statistical computing and data analysis is now being used in all disciplines and areas.				
Assessment Midterm and Final Exam Weight: 40% Midterm Written Exam 60% Final Written Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Modules by Subject Area

Subject Area TECHNOLOGY

Module Name COMPUTER SYSTEMS		Module Code PD-S-1301	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1301	Computer Systems		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester One		Mandatory Status Mandatory for TECHNOLOGY subject area	
Entry Requirements Pre-requisites ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills A basic understanding of Computer utilities Basic practical skills in IT	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation Students are expected to have fundamental computer and software skills from their previous studies. A recommended reading list will be provided to help students refresh their background knowledge in Computer Science and familiarize themselves with the topics that will be covered throughout the semester.				
Content and Educational Aims The module introduces the structure and components of computer systems and provides an overview of the essential elements and functions of operating systems. It covers the basics of both Windows and Linux operating systems and their practical usage. Detailed topics and specific content are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Explain the fundamental components, architecture, and operation of modern computer systems. - Explain how data is represented and processed in a computer. - Recognize the different types of software and their uses. - Explain fundamental networking concepts, internet technologies, and common communication protocols. - Apply basic algorithmic thinking and problem-solving techniques to computational tasks. - Learn about the architecture and design of computer hardware. - Understand the principles of database management and data storage. - Familiarize themselves with various programming languages and their applications. - Recognize ethical, legal, and cybersecurity considerations related to computing and information systems				
Usability and Relationship to other Modules Computer Systems is designed specifically for students in the 'Technology' subject area. It offers suitable groundwork for students who aspire to pursue technology-related degrees at Constructor University.				
Assessment Midterm and Final Exam Weight: 40% Midterm Written Exam 60% Final Written Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name FUNDAMENTALS OF PROGRAMMING WITH PYTHON 3			Module Code PD-S-1302	Level FOUNDATION	CP 5.0
Module Components					
<i>Number</i>	<i>Name</i>			<i>Type</i>	<i>CP</i>
PD-S-1302	Fundamentals of Programming with Python 3			Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester Two			Mandatory Status Mandatory elective for TECHNOLOGY subject area	
Entry Requirements <i>Pre-requisites</i> ☑ High School Diploma	<i>Co-requisites</i> ☑ None	<i>Knowledge, Abilities, or Skills</i> A basic understanding of computing concepts and algorithm Basic practical skills in IT and programming	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)	
			Duration One semester	Workload 125 hours	
Recommendations for Preparation Students should possess basic programming knowledge or have learned it during the first IFY semester. To assist in their preparation for the semester, students will be provided with a recommended reading list that covers the topics to be studied.					
Content and Educational Aims The module aims to equip students with essential Python 3 coding skills necessary to manipulate various types of data and perform a variety of tasks. Detailed topics ensuring comprehensive coverage of the necessary skills and knowledge are included in the module’s syllabus.					
Intended Learning Outcomes By the end of this module, students will be able to - Set up the Python development environment. - Write and Debug Python Programs. - Utilize Python Libraries and Modules Effectively. - Develop Simple Applications Using Python. - Understand and manipulate data structures. - Manage file input/output operations. - Analyze and Interpret Data Using Python. - Implement Basic Object-Oriented Programming Principles. - Understand the Basics of Software Development Practices. - Explore Ethical and Security Issues in Programming.					
Usability and Relationship to other Modules Fundamentals of Computing with Python 3 offers students the necessary groundwork to excel in corresponding technology-related degree programs at Constructor University.					
Assessment Midterm and Final Exam Weight: 40% Midterm Written Exam 50% Final Written Exam + 10% Final Oral Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University. This is the entrance module for Qualification students into the relevant undergraduate programs.					

Module Name FOUNDATION PHYSICS		Module Code PD-S-1102	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1102	Foundation Physics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester Two		Mandatory Status Mandatory elective for SCIENCE and TECHNOLOGY subject areas	
Entry Requirements Pre-requisites ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills A basic scientific background from high school	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One Semester	Workload 125 hours
Recommendations for Preparation Students should review their science material from high school to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module introduces a needed overview of fundamental knowledge of physics to students interested in continuing their studies within physical science disciplines and engineering. The module content covers areas in mechanics, states of matter and optics. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand the general aspect of introductory physics. - Use physics to solve applied problems. - Gain a first impression on research in physics. - Describe motion in one and two dimensions. - Work with Newton's laws of motion. - Relate force to potential and kinetic energy. - Calculate changes in momentum during collisions. - Describe basic fluid and solid-state mechanics. - Solve problems related to soundwave propagations. - Describe the main concepts of light optics.				
Usability and Relationship to other Modules Foundation Physics is a subject area-specific module in 'Sciences' and provides appropriate preparation for students wishing to continue their studies in undergraduate physical science and engineering degrees at Constructor University.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Written Exam 50% Final Written Exam + 10% Final Oral Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University. This is the entrance module for Qualification students into the relevant undergraduate programs.				

Subject Area SCIENCE

Module Name FOUNDATION CHEMISTRY		Module Code PD-S-1101	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1101	Foundation Chemistry		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester One		Mandatory Status Mandatory for SCIENCE subject area	
Entry Requirements Pre-requisites ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills A basic scientific background from high school	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation Students should review their science material from high school to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module introduces a needed overview of fundamental chemical knowledge to students interested in continuing their studies within biological and physical science disciplines. The module content covers areas in introductory general, inorganic, analytical and physical chemistry. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand the general aspect of introductory chemistry. - Use chemical concepts to explain processes in various scientific disciplines. - Apply chemical knowledge to solve applied problems. - Gain a first impression on chemical research. - Recognize the different types of chemical reactions. - Perform calculations involving stoichiometry and molarity. - Differentiate the properties of the three main states: gas, liquid and solid. - Solve problems involving oxidation states. - Use equilibrium constants to perform relevant calculations. - Describe nuclear reactions on a fundamental level.				
Usability and Relationship to other Modules Foundation Chemistry is a subject area-specific module in 'Sciences' and provides appropriate preparation for students wishing to continue their studies in undergraduate biological and physical science degrees at Constructor University.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Written Exam 60% Final Written Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name FOUNDATION PHYSICS		Module Code PD-S-1102	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1102	Foundation Physics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester Two		Mandatory Status Mandatory elective for SCIENCE and TECHNOLOGY subject areas	
Entry Requirements Pre-requisites ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills A basic scientific background from high school	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One Semester	Workload 125 hours
Recommendations for Preparation Students should review their science material from high school to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module introduces a needed overview of fundamental knowledge of physics to students interested in continuing their studies within physical science disciplines and engineering. The module content covers areas in mechanics, states of matter and optics. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand the general aspect of introductory physics. - Use physics to solve applied problems. - Gain a first impression on research in physics. - Describe motion in one and two dimensions. - Work with Newton's laws of motion. - Relate force to potential and kinetic energy. - Calculate changes in momentum during collisions. - Describe basic fluid and solid-state mechanics. - Solve problems related to soundwave propagations. - Describe the main concepts of light optics.				
Usability and Relationship to other Modules Foundation Physics is a subject area-specific module in 'Sciences' and provides appropriate preparation for students wishing to continue their studies in undergraduate physical science and engineering degrees at Constructor University.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Written Exam 50% Final Written Exam + 10% Final Oral Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University. This is the entrance module for Qualification students into the relevant undergraduate programs.				

Module Name FOUNDATION BIOLOGY		Module Code PD-S-1103	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1103	Foundation Biology		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester Two		Mandatory Status Mandatory elective for SCIENCE subject areas	
Entry Requirements Pre-requisites ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills A basic scientific background from high school	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One Semester	Workload 125 hours
Recommendations for Preparation Students should review their science material from high school to get prepared for the course. Course slides and book chapter are provided beforehand so that students can come prepared to class.				
Content and Educational Aims The module provides students with a fundamental understanding of key concepts in human biology. This course is intended for students interested in continuing their studies in life science disciplines. It introduces the structure and function of cells, tissues, and organ systems; human health; genetics; pregnancy and reproduction; immunity; and cancer. Detailed topics are included in the module's syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Demonstrate a fundamental understanding of the principles of human biology. - Explain the basic functions of the nutrients and nucleic acids. - Explain the structure and function of cells, tissues, organs, and major body systems. - Distinguish between an outbreak, an epidemic, and a pandemic. - Explain the significance of antibiotic resistance. - Apply basic biological concepts to understand human health, reproduction and genetics. - List the seven warning signs of cancer - Summarize how protective behaviour and diet can help prevent cancer. - Distinguish the difference between mitosis and meiosis - Distinguish between the structures of DNA and RNA.				
Usability and Relationship to other Modules The knowledge and scientific reasoning skills acquired in this module enable students to understand the basis of human health and apply biological concepts in different settings.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Written Exam 50% Final Written Exam + 10% Final Oral Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University. This is the entrance module for Qualification students into the relevant undergraduate programs.				

Subject Area SOCIETY

Module Name FOUNDATION ECONOMICS		Module Code PD-S-1203	Level FOUNDATION	ECTS 5.0
Module Components				
Number	Name		Type	ECTS
PD-S-1203	Foundation Economics		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester One		Mandatory Status Mandatory for SOCIETY subject area	
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills - A basic background in Mathematics - Ability to research, evaluate and express opinions	Frequency Once a year, Fall semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation Students should review their basic mathematics skills from high school to get prepared for the course. To help students gain a basic understanding of the subject area, a reading list to help prepare them for the topics to be studied during the module will be provided.				
Content and Educational Aims The module introduces students to political economy, macro- and microeconomics, and their differences. It provides students with the appropriate foundation in economic theory and application as well as enable them to be successful in their later related undergraduate studies. Detailed topics are included in the module syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand key economic concepts and terminology - Explain how firms develop their business strategy in response to economic conditions - Analyse the interplay of objectives and priorities among business stakeholders - Describe the causes and implications of market failure - Evaluate the consequences of government intervention in the economy - Identify barriers to trade and assess their impact on economic performance - Discuss the role and significance of the informal economy - Comprehend the concept and implications of economic globalisation - Explain the role and functions of international economic organisations - Identify the key principles of economic development and economic growth				
Usability and Relationship to other Modules The module 'Foundation Economics' provides an appropriate preparation for students wishing to study in the fields of Business, Industrial Engineering or Social Sciences at Constructor University.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Written Exam 60% Final Written Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University.				

Module Name FOUNDATION BUSINESS AND MANAGEMENT		Module Code PD-S-1201	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1201	Foundation Business and Management		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester Two		Mandatory Status Mandatory Elective for SOCIETY subject area	
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills A basic background in Mathematics. Ability to research, evaluate and express opinions.	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation To help students gain a basic understanding of the subject area, a reading list to help prepare them for the topics to be studied during the module will be provided.				
Content and Educational Aims The module introduces students to internal and external context of business practice and management. It will delve into business aspects of strategic management, introduces modern and classical business theories, and explain the role of leadership, globalisation, and financial management in business. Detailed topics are included in the module syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand key business concepts and terminologies. - Explain how firms develop their business strategy in relation to the economic environment. - Analyse the interplay of objectives and priorities among business stakeholders. - Differentiate between modern and classical management theories. - Articulate fundamental marketing principles, theories and practices. - Identify factors that determine successful business operations. - Explain the impact of globalization in business operations. - Elaborate on the role of social responsibility in business and management. - Comprehend financial management concepts through managerial and financial accounting. - State how companies manage crises and business interruption.				
Usability and Relationship to other Modules The module 'Foundation Business and Management' provides an appropriate preparation for students wishing to study in the fields of Business, Economics and Industrial Engineering at Constructor University.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Written Exam + Term Paper 50% Final Written Exam + 10% Final Oral Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University. This is the entrance module for Qualification students into the relevant undergraduate programs.				

Module Name INTRODUCTION TO SOCIAL SCIENCES		Module Code PD-S-1202	Level FOUNDATION	CP 5.0
Module Components				
Number	Name		Type	CP
PD-S-1202	Introduction to Social Sciences		Seminar	5.0
Module Coordinator Head of Academics	Program Affiliation - Foundation Year - SUBJECT module Semester Two		Mandatory Status Mandatory Elective for SOCIETY subject area	
Entry Requirements <i>Pre-requisites</i> ☒ High School Diploma	Co-requisites ☒ None	Knowledge, Abilities, or Skills - A basic background in general knowledge - Ability to research, evaluate and express opinions	Frequency Once a year, Spring semester	Forms of Learning and Teaching - Tutor-led but interactive classes (35 hours) - Tutor-led Tutorials (7 hours) - Directed and independent learning (83 hours)
			Duration One semester	Workload 125 hours
Recommendations for Preparation To help students gain a basic understanding of the subject area, a reading list to help prepare them for the topics to be studied during the module will be provided.				
Content and Educational Aims The module students to the fundamental social sciences concepts in relation to the subjects of sociology, politics, economics, and media studies. The course will introduce the key theorists in the development of social sciences as well as elaborate on the role and impact of culture, technology, and the government in society. Detailed topics are included in the module syllabus.				
Intended Learning Outcomes By the end of this module, students will be able to - Understand fundamental social sciences concepts and terminologies. - State the key theorists in the development of social sciences. - Explain how sociology contributes to the understanding of society. - Describe the key elements of culture and multiculturalism. - Discuss the different forms and functions of governments. - Differentiate the functions and purpose of social institutions. - Analyse the interconnection between politics and society. - Understand and address key social problems using social science perspectives. - Explain the role of mass medial in society. - Elaborate on the role of media convergence and its impact on media production and consumption.				
Usability and Relationship to other Modules The module 'Introduction to Social Sciences' provides appropriate preparation for students wishing to study in the fields of Social Sciences and Humanities at Constructor University.				
Assessment Midterm and Final Assessment Weight: 40% Midterm Project 50% Final Written Exam + 10% Final Oral Exam A passing grade of at least 45% is needed to complete the English Foundation Year and be able to move on to degree studies at Constructor University. This is the entrance module for Qualification students into the relevant undergraduate programs.				



↑ Campus Center
Research II, III
E.ON Energy
Laboratory
Laboratory II
Alfried Krupp College
E, F
East / West Hall
South Hall
BIGSSS
Student Activities
Center
Colleges
Sports Facilities

← TheaterSpace
Cinema
College Nordmetall
P

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