

<b>Course Name</b>	English 1				
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>
	2403-401		Preparatory Year	5	none

**Course Track**       University Requirement    College Requirement    Specialized Core    Electives

**Course Description:**

The KFU PYD English program is a skills-based program that focuses on the four essential language skills of reading, listening, writing, and speaking. Students of English 1 acquire the concepts of the weekly themes and the unit vocabulary to effectively acquire main ideas, compare reading and audio passages, and complete written submissions and conversation based speaking assignments.

Each skill of reading, listening, writing and speaking is tested for each unit every week. The KFU PYD English program focuses on the English language skills of predicting, acquiring main ideas, finding details, making inferences, expressing opinions, organizing, integrating ideas, synthesizing, expanding ideas, creating, writing, revising, and editing.

**English 1 Content and Topics:** Topics include **business, family, sports adventure, phobias, friendship, special possessions and art.** Students will be introduced to **simple present, past and continuous verb tenses** as well as the **future tense using “be going to”**. Other grammar points include **adverbs of frequency, comparative adjectives and basic modals.** Upon successful completion of English 1, students will have the necessary skills to begin English 2.

**Course Outcomes:**

- Pronounce, spell, and use beginner content-related lexis, such as quote, neighborhood, valuable, and others.
- Identify, conjugate, and use beginner English grammar, such as be verb, be going to, subject and object pronouns, and simple past/present verb forms.
- Implement comprehension strategies for reading articles in English.
- Write full sentences in paragraph form.
- Respond to impromptu Wh-, Yes/No questions in complete sentences.
- Collaborate with peers to comprehend and respond to beginner level English presented through visual, auditory, or oral mediums.
- Engage in independent study with the purpose of presenting skills and information learned to peers and teachers.

<b>Assessment Policy</b>	<b>Assignment</b>	10%	<b>Quiz</b>	35%	<b>Lab</b>	---%	<b>Project</b>	---
	<b>Midterm</b>	15%	<b>Final</b>	40 %	<b>Others</b>	---		---



Textbook	<ul style="list-style-type: none"> <li>• Beaumont John and Yancy A. Judith, “NorthStar 1 Reading &amp; Writing ,” 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:14479-9002-1</li> <li>• Barton, Laurie and Merdinger, Polly, “ NorthStar 1 Listening and Speaking,” 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:1-4479-8967-1</li> </ul>
References	<p><a href="https://pydm.kfu.edu.sa/">https://pydm.kfu.edu.sa/</a></p> <p><b>Moodle:</b> Moodle is an E-Learning platform that provides educators, administrators, and learners with an all-encompassing, secure, and integrated system to create personalized learning environments. Moodle provides students access to digital course content, chat interfaces, collaborative resources, course assessment, and supplemental materials.</p> <p><a href="https://kfu.ngl.mreader.org/">https://kfu.ngl.mreader.org/</a></p> <p><b>M-Reader:</b> M-Reader (National Geographic) is an online aid to asses and promote reading skills. In conjunction with physical reading materials, it assists learners with their acquisition of English vocabulary, reading skills, and increases language fluency. M-Reader provides online assessment tools that allow teachers to review student progress and comprehension.</p>



<b>Course Name</b>	English 2				
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>
	2403-402		Preparatory Year	5	English 1 or attaining benchmark in placement test.
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives				

**Course Description:**

The KFU PYD English program is a skills-based program that focuses on the four essential language skills of reading, listening, writing, and speaking. Students of English 2 acquire the concepts of the weekly themes and the unit vocabulary to effectively acquire main ideas, compare reading and audio passages, and complete written submissions and speaking presentations.

Each skill of reading, listening, writing and speaking is tested for each unit every week. The KFU PYD English program focuses on the English language skills of predicting, acquiring main ideas, finding details, making inferences, expressing opinions, organizing, integrating ideas, synthesizing, expanding ideas, creating, writing, revising, and editing.

**English 2 Content and Topics:** Topics include **work, student life, money, etiquette, food, heroes, health and endangered cultures**. Students will be introduced to the **future tense** using “**be going to**”, “**will**” and **present progressive**. Other grammar points include **possessive and descriptive adjectives, adverbs of manner, comparative adjectives and imperatives**. Upon successful completion of English 2, students will have the necessary skills to begin English 3.

**Course Outcomes:**

- Pronounce, spell, and use lower intermediate content-related lexis, such as counterfeit, isolated, exception, and others.
- Identify, conjugate, and use lower intermediate English grammar, such as descriptive adjectives, adverbs of frequency, and count and non-count nouns, and others. Correctly pronounce the different –ed endings, can/can’t, and others without thinking ahead.
- Utilize pre-reading, during-reading, and post-reading strategies.
- Write clear topic, supporting, and concluding sentences in a complete paragraph.
- Answer impromptu -Wh questions, including how in complete sentences.
- Collaborate with peers to predict content, check predictions, sort information, and relate the subject matter to personal experiences.
- Engage in independent study with the purpose of presenting skills and information learned to peers and teachers.

<b>Assessment Policy</b>	<b>Assignment</b>	10 %	<b>Quiz</b>	35 %	<b>Lab</b>	---%	<b>Project</b>	---
	<b>Midterm</b>	15%	<b>Final</b>	40 %	<b>Others</b>	--- %		---



Textbook	<ul style="list-style-type: none"> <li>• Haugnes, Natasha and Maher, Beth, “NorthStar 2 Reading &amp; Writing ,” 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:14479-9005-6</li> <li>• Frazier, Laurie and Mills, Robin, “ NorthStar 2 Listening and Speaking,” 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:14479-8971-6</li> </ul>
References	<p><a href="https://pydm.kfu.edu.sa/">https://pydm.kfu.edu.sa/</a></p> <p><b>Moodle:</b> Moodle is an E-Learning platform that provides educators, administrators, and learners with an all-encompassing, secure, and integrated system to create personalized learning environments. Moodle provides students access to digital course content, chat interfaces, collaborative resources, course assessment, and supplemental materials.</p> <p><a href="https://kfu.ngl.mreader.org/">https://kfu.ngl.mreader.org/</a></p> <p><b>M-Reader:</b> M-Reader (National Geographic) is an online aid to asses and promote reading skills. In conjunction with physical reading materials, it assists learners with their acquisition of English vocabulary, reading skills, and increases language fluency. M-Reader provides online assessment tools that allow teachers to review student progress and comprehension.</p>



<b>Course Name</b>	English 3				
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>
	2403-403		Preparatory Year	5	English 2
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives				
<b>Course Description:</b>					
<p>The KFU PYD English program is a skills-based program that focuses on the four essential language skills of reading, listening, writing, and speaking. Students of English 3 acquire the concepts of the weekly themes and the unit vocabulary to effectively acquire main ideas, compare reading and audio passages, and complete written submissions and speaking presentations.</p> <p>Each skill of reading, listening, writing and speaking is tested for each unit every week. The KFU PYD English program focuses on the English language skills of predicting, acquiring main ideas, finding details, making inferences, expressing opinions, organizing, integrating ideas, synthesizing, expanding ideas, creating, writing, revising, and editing.</p> <p><b>English 3 Content and Topics:</b> Topics include <b>extreme sports, fraud, space, language, careers, tourism, museums, and climate change.</b> Students will be introduced to <b>present perfect and past progressive</b> verb tenses. Other grammar points include <b>reflexive and reciprocal pronouns, modals of advice and necessity, superlative adjectives, infinitives of purpose and comparative adverbs.</b> Upon successful completion of English 3, students will have the necessary skills to begin English 4.</p>					
<b>Course Outcomes:</b>					
<ul style="list-style-type: none"> <li>• Pronounce, spell, and use intermediate content-related lexis, such as suspicious, preserve, convenience and others.</li> <li>• Identify, conjugate, and use upper intermediate English grammar, such as present continuous, past continuous, and present perfect.</li> <li>• Discuss and write about opinions regarding topics featured in readings that are at least 10 paragraphs of length.</li> <li>• Interpret, analyze, and think critically about readings and listening passages that pertain to contentious issues.</li> <li>• Write a well-developed 15 sentence paragraph that includes pre-writing strategies and intermediate level grammar usage.</li> <li>• Collaborate with peers to Infer meaning based on intermediate level content and connect them to their own personal lives.</li> <li>• Engage in independent study with the purpose of presenting skills and information learned to peers and teachers.</li> </ul>					



Assessment Policy	Assignment	10 %	Quiz	35 %	Lab	---%	Project	---
	Midterm	15%	Final	40 %	Others	--- %		
Textbook	<ul style="list-style-type: none"> <li>Barton, Laurie and Dupaquier, Carolyn, "NorthStar 3 Reading &amp; Writing," 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:1-4479-9021-8</li> <li>Solorzano, Helen and Schmidt, Jennifer, "NorthStar 3 Listening and Speaking," 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:1-4479-8975-9</li> </ul>							
References	<p><a href="https://pydm.kfu.edu.sa/">https://pydm.kfu.edu.sa/</a>  <b>Moodle:</b>  Moodle is an E-Learning platform that provides educators, administrators, and learners with an all-encompassing, secure, and integrated system to create personalized learning environments. Moodle provides students access to digital course content, chat interfaces, collaborative resources, course assessment, and supplemental materials.</p> <p><a href="https://kfu.ngl.mreader.org/">https://kfu.ngl.mreader.org/</a>  <b>M-Reader:</b>  M-Reader (National Geographic) is an online aid to asses and promote reading skills. In conjunction with physical reading materials, it assists learners with their acquisition of English vocabulary, reading skills, and increases language fluency. M-Reader provides online assessment tools that allow teachers to review student progress and comprehension.</p>							



<b>Course Name</b>	English 4				
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>
	2403-404		Preparatory Year	5	English 3
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives				
<p><b>Course Description:</b></p> <p>The KFU PYD English program is a skills-based program that focuses on the four essential language skills of reading, listening, writing, and speaking. Students of English 4 acquire the concepts of the weekly themes and the unit vocabulary to effectively acquire main ideas, compare reading and audio passages, and complete written submissions and speaking presentations.</p> <p>Each skill of reading, listening, writing and speaking is tested for each unit every week. The KFU PYD English program focuses on the English language skills of predicting, acquiring main ideas, finding details, making inferences, expressing opinions, organizing, integrating ideas, synthesizing, expanding ideas, creating, writing, revising, and editing.</p> <p><b>English 4 Content and Topics:</b> Topics include <b>prodigies, overcoming obstacles, medicine, economics and business, longevity, generosity, education, and technology</b>. Students will be introduced to <b>present perfect, continuous and passive verb tenses</b>. Other grammar points include <b>gerunds and infinitives, present and past unreal conditionals, phrasal verbs, indirect speech and tag questions</b>. Upon successful completion of English 4, students will have completed the English requirements for the PYD.</p> <p><b>Course Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Pronounce, spell, and use intermediate content-related lexis, such as dilapidated, ostentatious, accumulate, and others.</li> <li>• Identify, conjugate, and use upper intermediate English grammar, such as past perfect, phrasal verbs, and past unreal conditionals.</li> <li>• Infer a speaker's attitude and purpose from advanced listening and reading passages.</li> <li>• Interpret, analyze, and think critically about readings and listening passages that pertain to contentious issues.</li> <li>• Write a paragraph containing 15 sentences and a well-developed topic sentence that fully explains a content related topic, and includes an example of pre-writing strategies.</li> <li>• Collaborate with peers to Infer meaning based on intermediate level content and connect them to their own personal lives.</li> <li>• Engage in independent study with the purpose of presenting skills and information learned to peers and teachers.</li> </ul>					
<b>Assessment</b>	<b>Assignment</b>	10 %	<b>Quiz</b>	35 %	<b>Lab</b> ---% <b>Project</b> ---%



Policy	Midterm	15%	Final	40 %	Others	--- %	
Textbook	<ul style="list-style-type: none"> <li>English, Andrew and English, Laura, "NorthStar 4 Reading &amp; Writing ," 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:14479-9012-9</li> <li>Ferree, Tess and Sanabria, Kim, " NorthStar 4 Listening and Speaking," 3rd edition (Gulf Cooperation Council), 2015, Pearson Longman, ISBN:14479-8978-3</li> </ul>						
References	<p><a href="https://pydm.kfu.edu.sa/">https://pydm.kfu.edu.sa/</a></p> <p><b>Moodle:</b> Moodle is an E-Learning platform that provides educators, administrators, and learners with an all-encompassing, secure, and integrated system to create personalized learning environments. Moodle provides students access to digital course content, chat interfaces, collaborative resources, course assessment, and supplemental materials.</p> <p><a href="https://kfu.ngl.mreader.org/">https://kfu.ngl.mreader.org/</a></p> <p><b>M-Reader:</b> M-Reader (National Geographic) is an online aid to asses and promote reading skills. In conjunction with physical reading materials, it assists learners with their acquisition of English vocabulary, reading skills, and increases language fluency. M-Reader provides online assessment tools that allow teachers to review student progress and comprehension.</p>						





<b>Course Name</b>	Basic Science 1 (Biology)							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417-304	304	Preparatory Year	2	-			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<p><b>Course Description:</b> The main purpose of this course is to provide help to the medical students in the preparatory year to understand the basic concepts of the subjects of cytology, anatomy, physiology, immunology, biochemistry and genetics. The course presents foundations of these subjects and describes them in simple details and language to make them understandable to students. This course will focus on naming and describing the structure and function of cells. Build a good foundation in anatomy, physiology and immunology. Describe the circulatory, respiratory system, urinary system and body defenses. This course will also focus on biological macromolecules (proteins, carbohydrates, lipids, and nucleic acids), their structure and function. Recognize the fundamental concepts of cellular reproduction. Introduce students to the core concepts of what genes are and how they work, enabling students to appreciate the transfer of genetic information in living cells, describe the basic aspects of the flow of genetic information from DNA to proteins. Recognize how the hereditary information in DNA controls what an organism looks like and how it works and recognize how to identify and classify mutations in DNA. Understanding the principal concepts and terminology of these subjects will help the students to understand these and other medical subjects when delivered in more details in the advanced classes in their designated colleges.</p>								
<p><b>Course Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Explain the concepts of organic compounds.</li> <li>• Provide an overview of cytology, and cellular metabolism.</li> <li>• Recognize the fundamental concepts of genetics, and cellular reproduction.</li> <li>• Recognize the fundamental concept of DNA structure and function.</li> <li>• Recognize the basic concepts of animal structure and function.</li> <li>• Recognize the fundamental concept of circulation and respiration.</li> <li>• 7. Explain the basic concepts of defense system.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	10%	<b>Quiz</b>	10%	<b>Lab</b> (Virtual lab)	5%	<b>Project</b>	5%
	<b>Midterm</b>	30%	<b>Final</b>	40%	<b>Others</b>	--%		
<b>Textbook</b>	Simon. Reece. Dickey, "Campbell Essential Biology with physiology", Pearson, 2016-fifth edition ISBN 9781292102368							
<b>References</b>	Jane B. Reece, Lisa A. Urry, Michael L. Cain, "Campbell Biology" Benjamin Cummings, 2010-9th edition ISBN 0321558235							





<b>Course Name</b>	Basic Science 2							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417-305	305	Preparatory Year	2	-			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<b>Course Description:</b> Basic Science 2 introduces basic concepts and key ideas while providing opportunities to learn reasoning skills and a new way of thinking about our environment. No prior work in science is assumed. It is substantial introduction to the fundamental behavior of matter and energy.								
<b>Course Outcomes:</b> <ul style="list-style-type: none"> <li>Recognize subatomic particles and the atomic structure.</li> <li>Memorize the functional groups in organic chemistry and its chemical properties.</li> <li>Recognize the main areas of medicinal chemistry</li> <li>Define chemical reactions</li> <li>Explain balancing chemical equation as an application of the law of conservation of mass Review the factors affecting the reaction rate.</li> <li>Identify the four types of chemical attractions and its effect on the physical and chemical properties of the substance.</li> <li>Compare atomic bonds.</li> <li>Differentiate between acids and bases and their properties.</li> <li>Calculate molar, molal, w/w, w/v concentration.</li> <li>Solve stoichiometric calculations.</li> <li>Classify chemical reactions according to their energy.</li> <li>Demonstrate scientific facts.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	10%	<b>Quiz</b>	15%	<b>Lab</b> (Virtual lab)	5%	<b>Project</b>	10%
	<b>Midterm</b>	20%	<b>Final</b>	40%	<b>Others</b>	---%		
<b>Textbook</b>	Conceptual Chemistry, 5th edition. By: John Suchocki. Pearson. 2013.							
<b>References</b>	1. Chemistry, 12th edition. By: R. Chang. McGraw-Hill. 2015. 2. Conceptual Physical Science Explorations, 6th edition. By: Hewitt, Suchocki, and Hewitt. Pearson Addison- Wesley, San Francisco, CA. 2016							



<b>Course Name</b>	Biostatistics							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417-303	303	Preparatory Year	2	-			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<b>Course Description:</b>								
Types of data, Sampling method, Types of studies, Frequency distribution, Visualizing data, Measures of Centre, Measure of variation, Measure of relative standing, Scientific calculator, Fundamentals of probabilities, addition rule in probability, Multiplication rule in probability, The Standard Normal Distribution, Applications of Normal Distributions, Correlation, Regression, Introduction to SPSS Program.								
<b>Course Outcomes:</b>								
Students will be exposed to the most basic topics in STATISTICS and they are expected to:								
<ul style="list-style-type: none"> <li>• Appreciate the role of biostatistics in health and health related fields.</li> <li>• Define and identify the different levels of measurement, types and characteristics of different variables.</li> <li>• Enumerate, define and construct different types of tables to summarize data with meaningful interpretation, abstract reasoning and efficient presentation of data at hand.</li> <li>• Enumerate, indicate and construct the different types of graphical presentation for data display and reporting with proper interpretation.</li> <li>• Enumerate, appreciate, and appraise the different measures of central tendency to describe, detecting normality and data examination and presentation.</li> <li>• Apply basic rules of probabilities.</li> <li>• Enumerate, employ, appraise the different measures of dispersion to describe, examine, present and interpret the different data sets regarding, normality, dispersion and deviation.</li> <li>• Analyze a collection of paired sample data using correlation and regression. Identify the normal distribution and examining the data for normality.</li> <li>• Find measure of center, measure of variation and graph data using SPSS.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	--%	<b>Quiz</b>	24%	<b>Lab</b>	---	<b>Project</b>	5%
	<b>Midterm</b>	25%	<b>Final</b>	40%	<b>Others</b>	6		
<b>Textbook</b>	Biostatistics for the biological and health sciences, M. M. Triola and M. F. Triola, 1st Edition, Pearson.							



**References**

- **Medical statistics at a glance, Petrie, Aviva, 3rd ed.**
- **Understandable statistics: concepts and methods, Brase, Charles Henry, 9th ed.**



<b>Course Name</b>	Mathematics-1							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417 – 301	301	Preparatory Year	2	–			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<p><b>Course Description:</b> Mathematics-1 is a course in Basic Mathematics offered by the Department of Basic Sciences. It is a 2credit-hour course conducted through 4 hours along 8 weeks. This course provides an intensive study on Basic Mathematics, which is fundamental to the study of related technical subjects. Emphasis is placed on many topics; explicitly: Decimals and Percentage, Algebra and Equations, Lines and Inequalities, Functions and Graphs, Exponential and Logarithmic Functions.</p>								
<p><b>Course Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Compute percentage and apply the operations on decimals and fractions.</li> <li>• Recognise the real numbers and their properties.</li> <li>• Apply operations on polynomials and factorise the polynomials.</li> <li>• Solve linear, quadratic, and absolute value equations.</li> <li>• Solve linear inequalities.</li> <li>• Find equations of, and graphing, lines and circles.</li> <li>• Recognize functions, including composition of functions and inverse functions, and their application as mathematical models.</li> <li>• Use the properties of exponential and logarithmic functions and their application to solve equations.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	0%	<b>Quiz</b>	30%	<b>Lab</b>	---%	<b>Project</b>	5%
	<b>Midterm</b>	25%	<b>Final</b>	40%	<b>Others</b>	---%		
<b>Textbook</b>	<b>Mathematics With Applications: - 10th edition</b> <b>Author: L. Lial , T. W. Hungerford , and J. Holcomb Publisher: Pearson, 2013.</b>							
<b>References</b>	<b>Precalculus Enhanced with Graphing Utilities, 7th edition</b> <b>Author: Michael Sullivan Publisher: Pearson, 2016</b>							



<b>Course Name</b>	Mathematics (2)							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417 – 302	302	Preparatory Year	2	Mathematics (1)			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<p><b>Course Description:</b> Mathematics (2) is a course offered by the Department of Basic Sciences. It is a 2-credit-hour course conducted through 4 hours along 8 weeks. This course provides an intensive study on some topics that are useful for students. Emphasis is placed on many topics; specifically: Matrices, Trigonometry, and Introduction to Calculus (Limits, Continuity, Differentiation, and Integration).</p>								
<p><b>Course Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Evaluate trigonometric and inverse trigonometric functions, and graph trigonometric functions in rectangular form.</li> <li>• Solve trigonometric equations and use them to solve trigonometric problems.</li> <li>• Use trigonometric identities in simplifying and solving equations.</li> <li>• Apply the basic operations on matrices and compute product of matrices.</li> <li>• Find determinant and inverse of a matrix and use it to solve systems of equations</li> <li>• Evaluate various limit problems both algebraically and graphically, and evaluate limits at infinity and infinite limits.</li> <li>• Check the continuity of various types of functions,</li> <li>• Differentiate various types of functions using the differentiation rules.</li> <li>• Find antiderivative of a function, and integrate various functions using the various integration methods.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	0%	<b>Quiz</b>	30%	<b>Lab</b>	0	<b>Project</b>	5%
	<b>Midterm</b>	25%	<b>Final</b>	40%	<b>Others</b>	0		
<b>Textbook</b>	<b>Mathematics With Applications : 10th Edition by M.L.Lial , T.W.Hungerford , and J.Holcomb</b>							
<b>References</b>	<b>Precalculus Enhanced with Graphing Utilities, 7th edition Author: Michael Sullivan Publisher: Pearson, 2016</b>							



<b>Course Name</b>	Basic Science Nonmedical							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417-306	306	Preparatory Year	2	-			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<p><b>Course Description:</b> Basic Science Non-medical introduces basic concepts and key ideas while providing opportunities to learn reasoning skills and a new way of thinking about our environment. This course is to provide help to students in the preparatory year to understand the basic concepts of the subjects of Chemistry, Biology and Physics. This course will focus on atoms, periodic properties, chemical bonds, chemical reactions, organic chemistry. The students will recognize motion, and laws of motion, momentum, work, potential energy and kinetic energy, energy conservation, light, electricity and electromagnetic induction.</p> <p>This course will also focus on biological science, including an introduction to the disciplines of biochemistry, cell organization and genetics. Students will develop a basic understanding of the biological macromolecules (proteins, carbohydrates, lipids, and nucleic acids) there structure and function. Naming and describing the structure and function of cells. Introduce students to the core concepts of what genes are and how they work, enabling students to appreciate the transfer of genetic information in living cells.</p>								
<p><b>Course Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Define and explain minor concepts in the biological sciences.</li> <li>• Recognize the relationship between structure and function at level of cellular and molecular basis.</li> <li>• Recall basic concepts of chemistry.</li> <li>• Describe and recognize the atomic structure in addition to molecular structure and reactivity of matter.</li> <li>• Reproduce the basic laws and principle in the physics, which include motion, energy and electricity.</li> <li>• Differentiate between different phenomena of light physics in life. Recognize different aspects of light.</li> <li>• Conceptual problem solving skill, numerical skill and communications skill.</li> <li>• Developing ability to think critically and analytically.</li> <li>• Demonstrate different problems and situations in basic sciences.</li> <li>• Illustrate the different biological, physical and chemical phenomena and their applications in the real life.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	15 %	<b>Quiz</b>	30 %	<b>Lab</b> (Virtual lab)	12%	<b>Project</b>	10 %
	<b>Midterm</b>	----%	<b>Final</b>	33 %	<b>Others</b>	--- %		





Textbook	<ul style="list-style-type: none"> <li>• Physical Science, 9th edition. By: Bill W. Tillery. McGraw-Hill. 2012.</li> <li>• Campbell Essential Biology with physiology, Simon. Reece. Dickey, Pearson, 2016-fifth edition ISBN: 10 1-292-10236-5 &amp; ISBN: 13 978-1-29210236-8</li> </ul>
References	<ul style="list-style-type: none"> <li>• Conceptual Physical Science Exploration, 2<sup>nd</sup> edition. By: Hewitt, Suchocki and Hewitt. Pearson Addison-Wesley, San Francisco, CA.</li> <li>• Campbell Essential Biology with physiology, Simon. Reece. Dickey, Pearson, 2013-fourth edition ISBN:0321788257</li> </ul>



<b>Course Name</b>	University Life Skills				
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>
	2410-305	305	Preparatory Year	1	-
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives				

#### Course Description:

The course provides students with the necessary skills during their stay at the university to reach high levels of university adaptation, the ability to study and to cope with the requirements of the university and community life.

#### Course Outcomes:

- Identify the concepts of collegiate life including studying, decision-making, preparing for exams, and solving problems to help him/her adapt to university.
- Implement right strategies of studying, doing research and managing time.
- Follow scientific steps to solve problems and make decisions.
- Build good report with his/her instructors and colleagues.
- Recognize psychological problems and the solutions to control them.
- Appreciate the value of teamwork.

<b>Assessment Policy</b>	<b>Assignment</b>	---%	<b>Quiz</b>	--%	<b>Lab</b>	---%	<b>Project</b>	20 %
	<b>Midterm</b>	30 %	<b>Final</b>	40 %	<b>Others</b>	10 %		

**Textbook** This course consists of a number of training courses presented to students in the form of PowerPoint Presentations, and these presentations are uploaded on the students' university websites.

**References**

المراجع:

1. مهارات الحياة الجامعية: الاتصال-التعلم-التفكير-البحث: ذوقان عبيدات وسهيبة أبو السميد الطبعة: الأولى 1433هـ عمان: دار الفكر.
2. مهارات الحياة الجامعية: محمد جهاد جمل الطبعة الأولى 2015 الإمارات-دار الكتاب الجامعي.
3. التكيف الاجتماعي والتحصيل الدراسي: دراسة ميدانية في البيئة الجامعية مصلح احمد الصالح الرياض: دار الفيلس الثقافية الطبعة الأولى: 1996.
4. المهارات الدراسية: محمد علي الخولي عمان: مكتبة دار الفلاح للنشر والتوزيع. الطبعة: الأولى 2001.
5. استراتيجيات أداء الاختبارات: فرانكلين بيترسون جودي تيركل ترجمة: د. خالد بن عبد العزيز الدامغ جامعة الملك سعود 1432هـ



<b>Course Name</b>	Information Technology							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2413	301	Preparatory Year	1	-			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<b>Course Description</b>								
<p><b>Information Technology (2413-301)</b> course introduces students to fundamentals of computers and its components including the two major elements of a computer system namely hardware and software. Apart from this, the course introduces concepts of Internet and practical usage, ethical aspects of computer usage and computer/information security and privacy. Moreover, the students are acquainted with productivity tools such as word processing programs, presentation software, and spreadsheet software. They learn the required skills to use computers and to create view and modify general office documents (project reports, documents, memos, letters, spreadsheets, presentations, databases, etc.). Regardless of their major, all students will be using some of these applications extensively during their college level studies. The computer course is lab-based, and the learning is blended, combining traditional face-to-face classrooms and individual online study. These courses contribute to the preparatory year program learning outcomes. Learners also have to involve in a project work in IT related topics (Robotics, Software development, Mobile Programming, Computer Hardware &amp; Networks) which improves their ability to learn independently and cultivate research thoughts. Students are also guided to deliver class seminars on latest technology and trends IT field which improves their self-confidence, presentation skills, and self-learning ability.</p>								
<b>Course Outcome</b>								
<ul style="list-style-type: none"> <li>Identify basic terms of information technology related with computer hardware, software, security and ethics in the academic settings.</li> <li>Use a computer operating system and Internet to carry out tasks suitable for the academic requirements.</li> <li>Create a text document with formatting and styles suitable for the academic purpose.</li> <li>Create a spreadsheet with calculations and formatted styles suitable for the academic purpose.</li> <li>Create a multimedia presentation that is interactive and legible for the academic purpose.</li> <li>Show continual desire to develop independence and responsibility for implementing plans for given IT course targets and tasks.</li> </ul>								
<b>Assignment policy</b>	<b>Assignment</b>	20%	<b>Quiz</b>	10%	<b>Lab</b>	---%	<b>Project</b>	10%
	<b>Midterm</b>	20%	<b>Final</b>	40%	<b>Others</b>	---%		
<b>Text Book</b>	Information Technology by MKCL Arabia Limited							
<b>References</b>	<b>Web Content</b> <a href="https://newera.kfu.edu.sa/">https://newera.kfu.edu.sa/</a>							



<b>Course Name</b>	Basic Science Skills 1							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417-304	304	Preparatory Year	2	none			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<b>Course Description:</b>								
<p>The main purpose of this course is to provide help to the medical students in the preparatory year to understand the basic concepts of the subjects of anatomy, physiology, biochemistry, genetics and histology. The course presents foundations of these subjects and describes them in enough simple details and language to make them understandable to students of a medical career. This course will also focus on naming and describing anatomical structures. Identify different parts of skeletal muscles and classify them according to mode of action, describe the general arrangement of the circulatory system and function of different components and their clinical applications, provide an overview of histology and cytology with the basic concepts of histological structure. Understanding the principal concepts and terminology of these subjects will help the students to understand these and other medical subjects when delivered in more details in the advanced classes of the adopted Groningen University Medical Curriculum.</p>								
<b>Course Outcomes:</b>								
<ul style="list-style-type: none"> <li>• Explain Anatomical terminology, structure and function of Skeletal system, different types of Joints, joint partners.</li> <li>• General Anatomy of Muscular system, Vascular system, Nervous system.</li> <li>• Introduction to physiology and Complete comprehensive knowledge of physiological basics of transport across cell membrane, basics of membrane potentials, Renal Physiology Body fluids and electrolytes.</li> <li>• Should know the basic principles of genetics in relation to Structure of DNA&amp;RNA, Cell Cycle.</li> <li>• Understanding of basic chemistry of Carbohydrate, Lipids, Proteins, Enzymes and Vitamins with related clinical correlation.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	30%	<b>Quiz</b>	10 %	<b>Lab</b>	---%	<b>Project</b>	---
	<b>Midterm</b>	20%	<b>Final</b>	40 %	<b>Others</b>	---		
<b>Textbook</b>	<ul style="list-style-type: none"> <li>• Junqueira Basic Histology. Text and Atlas. 13th Edition.</li> <li>• Guyton and Hall Textbook of Medical Physiology. 12th Edition.</li> </ul>							
<b>References</b>	<ul style="list-style-type: none"> <li>• Moore clinically oriented anatomy 8<sup>th</sup> edition</li> <li>• Lippincotts Biochemistry: Series Editor Richard A. 5<sup>th</sup> edition</li> <li>• Medical Genetics, by Jorde, Carey Bamshad Mosby Elsevier 5<sup>th</sup> Edition</li> </ul>							



<b>Course Name</b>	Basic Science Skills-2							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2417-308	308	Preparatory Year	2	Basic Science Skills-1			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<b>Course Description:</b>								
<p><i>BSS-2:</i> This course is to provide help to students in the preparatory year to understand the basic concepts of the subjects of Anatomy, Biochemistry, Physiology and Genetics. This course will give basic anatomical structures related with different organ systems and focuses on their clinical correlation. The students will understand the genetic basis of translation and transcription. In addition, it will give an insight into metabolism of carbohydrates, Lipids and proteins. The students will be conceptualized about physiological basis of GIT, cardiovascular and endocrine system. In addition, it will highlight the continuation of BSS-1 knowledge and add systematic coverage of details in this course.</p>								
<b>Course Outcomes:</b>								
<ul style="list-style-type: none"> <li>• Explain the basics of organ system.</li> <li>• Develop concepts of physiology and functions of different body system.</li> <li>• Recognize the anatomical structures and organs related with the respective systems.</li> <li>• Relate the anatomical structures with their function and clinical aspects.</li> <li>• Knowledge of the basic concepts of Genetics.</li> <li>• Describe the translation and transcription processes in Genetics.</li> <li>• Describe and recognize the atomic structure in addition to molecular structure and reactivity of matter.</li> <li>• To understand the basic concepts of Metabolism of Carbohydrates, lipids and proteins.</li> <li>• Developing ability to think critically and analytically.</li> <li>• Predict solutions to biological, physiological and biochemical problems.</li> <li>• Develop the concepts of the integration of the human body systems with Anatomical structure, Physiological functions and Biochemical reactions.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	30 %	<b>Quiz</b>	10 %	<b>Lab</b>	---%	<b>Project</b>	---%
	<b>Midterm</b>	20 %	<b>Final</b>	40 %	<b>Others</b>	---%		
<b>Textbook</b>	<ul style="list-style-type: none"> <li>• <b>Junqueira Basic Histology. Text and Atlas. 13th Edition.</b></li> <li>• <b>Guyton and Hall Textbook of Medical Physiology. 12th Edition.</b></li> </ul>							



**References**

- **Moore clinically oriented anatomy 8th edition**
- **Lippincotts Biochemistry: Series Editor Richard A. 5th edition**
- **Medical Genetics, by Jorde, Carey Bamshad Mosby Elsevier 5th Edition**



<b>Course Name</b>	PBL1							
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>			
	2410-303	303	Preparatory Year	2	none			
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives							
<b>Course Description:</b>								
<p>The PY PBL1 course is intended to strengthen the fundamental principles of basic sciences and equip the students with the competencies required for the future clinical practice i.e. lifelong learning, professionalism, medical language, SDL, problem solving, communication skills, and reflective skills.</p> <p>In addition, this course is designed to enhance the students' scientific reasoning as well as developing the value of teamwork, interpersonal skills and show the students how to deal with psychosocial issues. Emphasis is placed on preparing the preparatory year students for the first year of the adopted Medical Curriculum of Groningen University.</p>								
<b>Course Outcomes:</b>								
<ul style="list-style-type: none"> <li>Recognize medical terminology</li> <li>Describe the immune system and the Lymphatic System and recognize its function. State the different organelles and recognize its functions. Interpretation of new data.</li> <li>Analyze problems. Explain and justify new scientific data. Design of learning objectives.</li> <li>Criticize and reconstruct of scientific information and explain and subdivide of information.</li> <li>Measure the degree of achievement of learning objectives and design effective strategies.</li> <li>Demonstrate verbal and written communication with their colleagues</li> <li>Criticize discussed pre-clinical cases and most important points of the studied problem.</li> </ul>								
<b>Assessment Policy</b>	<b>Assignment</b>	20 %	<b>Quiz</b>	10 %	<b>Lab</b>	---%	<b>Project</b>	10%
	<b>Midterm</b>	30%	<b>Final</b>	30 %	<b>Others</b>	---%		
<b>Textbook</b>	<ul style="list-style-type: none"> <li>Essential Cell Biology, 5th Edition.2014 Bruce Alberts et al.</li> <li>Junqueira's Basic Histology. 14th edition. Text &amp; Atlas. Anthony L. Mesher</li> </ul>							
<b>References</b>	<ul style="list-style-type: none"> <li>Guyton and Hall Medical Physiology is also required by some experts (optional)</li> <li>Harper;s Illustrated Biochemistry: 30th edition Mc Graw Hill</li> </ul>							



<b>Course Name</b>	PBL2				
<b>Course Information</b>	<b>Course Code</b>	<b>Course No.</b>	<b>Course Level</b>	<b>Credit Hours</b>	<b>Prerequisite(s)</b>
	2410-304	304	Preparatory Year	2	none
<b>Course Track</b>	<input type="checkbox"/> University Requirement <input checked="" type="checkbox"/> College Requirement <input type="checkbox"/> Specialized Core <input type="checkbox"/> Electives				

**Course Description:**

The PY PBL2 course is intended to strengthen the fundamental principles of basic sciences and equip the students with the competencies required for the future clinical practice i.e. lifelong learning, professionalism, medical language, SDL, problem solving, communication skills, and reflective skills. In addition, this course is designed to enhance the students' scientific reasoning as well as developing the value of teamwork, interpersonal skills and show the students how to deal with psychosocial issues. Emphasis is placed on preparing the preparatory year students for the first year of the adopted Medical Curriculum of Groningen University.

**Course Outcomes:**

- Recognize medical terminology.
- Describe the immune system and the Lymphatic System and recognize its function.
- State the different organelles and recognize its functions.
- Interpretation of new data.
- Analyze problems. Explain and justify new scientific data. Design of learning objectives.
- Criticize and reconstruct of scientific information and explain and subdivide of information.
- Measure the degree of achievement of learning objectives and design effective strategies.
- Demonstrate verbal and written communication with their colleagues.
- Criticize discussed pre-clinical cases and most important points of the studied problem.

<b>Assessment Policy</b>	<b>Assignment</b>	20 %	<b>Quiz</b>	10 %	<b>Lab</b>	---%	<b>Project</b>	10%
	<b>Midterm</b>	30%	<b>Final</b>	30 %	<b>Others</b>	---%		





Textbook	<ul style="list-style-type: none"><li>• Essential Cell Biology, 5th Edition.2014 Bruce Alberts et al.</li><li>• Junqueira's Basic Histology. 14th edition. Text &amp; Atlas. Anthony L. Mesher</li></ul>
References	<ul style="list-style-type: none"><li>• Guyton and Hall Medical Physiology is also required by some experts (optional)</li><li>• Harper;s Illustrated Biochemistry: 30th edition Mc Graw Hill</li></ul>

