

UNIVERSIDAD AUTÓNOMA DE BAJA CALIFORNIA

COORDINACIÓN GENERAL DE FORMACIÓN BÁSICA COORDINACIÓN GENERAL DE FORMACIÓN PROFESIONAL Y VINCULACIÓN UNIVERSITARIA PROGRAMA DE UNIDAD DE APRENDIZAJE

I. IDENTIFICATION INFORMATION

- 1. Academy unit:** Facultad de Ingeniería, Mexicali; Facultad de Ingeniería, Arquitectura y Diseño, Ensenada; y Facultad de Ciencias de la Ingeniería y Tecnología, Valle de las Palmas.
- 2. Study program:** Civil Engineer
- 3. Plan duration:** 2020-1
- 4. Name of the learning unit:** Technical English for Civil Engineers
- 5. Code:** 36045
- 6. HC:** 01 **HL:** 00 **HT:** 03 **HPC:** 00 **HCL:** 00 **HE:** 01 **CR:** 05
- 7. Learning stage to which it belongs:** Basic
- 8. Character of learning unit:** Optional
- 9. Requirements for enrollment to learning unit:** None



PUA formulated by

Christian Aldaco Avendaño
Claudia Yanet Gómez Ruiz
Leonel Gabriel García Gómez
Mario González Durán

Approved by

Alejandro Mungaray Moctezuma
Humberto Cervantes De Ávila
Daniela Mercedes Martínez Plata

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II. GENERAL PROPOSE OF THE COURSE

The purpose of this course is for the student to identify different types of written texts in English language applied in the civil engineering field, perform activities that allow them to make individual and groups practices in order to develop skills that allow them to read and understand texts such as: books, manuals, catalogs and articles related to civil engineering. The student will use English language proficiency to learn and understand technical terms related to civil engineering carrying out projects that promote cooperation and teamwork; showing respect and tolerance with his classmates and his teacher.

Suggested requirement: Based on the level of English that the student obtained when they study English I and English II to continue developing the correct use of the four skills: oral communication, written communication, reading comprehension and listening comprehension, and belongs to the area of knowledge of Social Sciences and Humanities.

III. COURSE COMPETENCIES

Interpret the information provided by technical literature in English language through general reading and comprehension strategies in order to apply this knowledge in a work environment with an entrepreneurial attitude demonstrating honesty, responsibility and integrity.

IV. EVIDENCES OF PERFORMANCE

Elaborate and present in English language a civil engineering project applied in the context of the Mexicali City.

V. DEVELOPMENT BY UNITS

UNIT I. Civil engineering

Competence:

Identify different technicalities used in some civil engineering areas through the management of information technologies and bibliographic research in order to structure ideas clearly orally and in writing showing a proactive and reflective attitude.

Content :**Duration:** 4 hours

- 1.1 Engineering
- 1.2 Civil engineering 1
- 1.3 Civil engineering 2
- 1.4 Health and Safety
- 1.5 Obligation and Requirements

UNIT II. Technical information

Competence:

Identify important topics used in Civil Engineering field through the analysis of specialized texts and communication strategies to recognize the description activities that characterize the civil engineer profession in English language with analytical and collaborative attitude.

Content :

- 2.1 Materials technology
- 2.2 Engineering design
- 2.3 Procedures and precautions
- 2.4 Monitoring and Control

Duration: 4 hours

UNIT III. Civil engineering uses

Competence:

Identify the key ideas in a text or an oral discourse and use quality control techniques for materials and services applied in civil engineering field with reflective attitude, showing respect and responsibility.

Content :

- 3.1 Design
- 3.2 Measurement (area, size and mass)
- 3.3 Materials properties
- 3.4 Static and dynamic principles

Duration: 4 hours

UNIT IV. Civil engineering applied project

Competence:

Create a project on a subject of civil engineering using grammatical techniques and technical English vocabulary that reflects a continuous improvement in the context of Mexicali City to a specialized public with respect, creative and proactive attitude.

Content :**Duration:** 4 hours

- 4.1 Expository paragraphs
- 4.2 Punctuation Rules
- 4.3 Linking words
- 4.4 writing report (1st draft)
- 4.5 writing report (2nd draft)
- 4.6 Final Project

VI. STRUCTURE OF WORKSHOP PRACTICES

Practice No.	Competence	Description	Support material	Time
UNIT I				
1	Use technical terms through specialized texts in order to identify the terminology of civil engineering profession with an orderly and responsible attitude.	<p>Searches for specialized texts in civil engineering field.</p> <p>Participate in teams or pairs in the activities indicated in the exercise booklet.</p> <p>Submit your assignments, exercises and written activities in the required time with clarity, cleanliness and coherence.</p>	<ul style="list-style-type: none"> -Electronic websites -workbook -Teamwork -Debates -Questions and answers activities -Conversations, dialogues and role-plays. 	10 hours
UNIT II				
2	Interprets the general idea and possible development of an oral or written message in English using grammar, non-verbal elements and context of rehabilitation and maintenance of land routes to communicate the message to a specialized audience showing a reflective, orderly and responsible attitude.	<p>Searches specialized texts in civil engineering field and the topics found in teams, drafting a dialogue in which they use the terms of the civil engineering field, the conversation must have a minimum duration of 5 minutes per team.</p> <p>Make and deliver the activities of the exercise booklet in the required time, with clarity, cleanliness and coherence</p>	<ul style="list-style-type: none"> -Electronic websites -workbook -Teamwork -Debates -Questions and answers activities -Conversations, dialogues and role-plays. 	10 hours

UNIT III				
3	Express ideas and concepts in coherent and creative compositions with clear introduction, development and conclusion and thus develop their ability to understand English texts using simple sentences, writing, punctuation and vocabulary with a proactive attitude, showing respect and responsibility.	Write a one-page report which should be focused on one of civil engineering areas, the report must be supported by at least three bibliographic sources Make and deliver the activities of the exercise booklet in the required time, with clarity, cleanliness and coherence.	-Written exercises -Teamwork	10 hours
UNIDAD IV				
4	Expose orally in English language through an audiovisual presentation the results obtained in the investigation showing a reflective, orderly and responsible attitude.	Make an investigation of a process in civil engineering area. Document the research process. Prepares and presents an audiovisual project about the process to a public specialized in civil engineering area.	-Power Point Presentation -images	18 hours

VII. WORK METHOD

Framing: The first day of class the teacher must establish the form of work, evaluation criteria, quality of academic work, rights and obligations for teacher and students.

Teaching strategy (teacher)

The teacher will carry out different practices that allow students to develop their reading skills to obtain specific information, make quick readings to get an idea of a text in English language, look for details in technical topics of the civil engineering area, do oral presentations and exhibitions in class, write essays on specific topics to express their ideas and defend their points of view, must organize classroom activities and be in charge of monitoring the students performance. The teacher will make audiovisual presentations of the most important topics in class and will give feedback to the students looking mainly for students to develop their ability to understand written texts in English language.

Learning strategy (student)

Students will work independently, being responsible for their own learning. Students will be able to handle English language in several ways. Students will undertake effective learning practices and will be able to monitor their progress and evaluate their performance in the use of English language. In this course, students are expected to work actively, cooperatively, individually and in groups. They will carry out different activities such as: reading texts on different topics related to civil engineering field, answering questions and filling in multiple choice exercises. They will also write texts using an approach where the preparation of the written text is an important activity to show their understanding of English language.

VIII. EVALUATION CRITERIA

The evaluation will be carried out permanently during the development of the learning unit as follows:

Accreditation Criterion

- To be entitled to ordinary and extraordinary exam, the student must meet the attendance percentages established in the current School Statute.
- Scaled from 0 to 100, with a minimum approval of 60.

Evaluation criteria

- 3 Written texts... ..	20%
- Grammar exercises portfolio.....	10%
- 2 Written test.....	40%
- Final Project.....	30%
Total.....	100%

IX. REFERENCES

Required	Suggested
<p>Brieger, N. and Paul, (2002) A.Technical English Vocabulary and Grammar.Oxford Summertown.</p> <p>Mark, I. (2008). Cambridge English for Engineering. England: Cambridge University Press.</p> <p>Marl, I.(2009).Professional English in Use Engineering. England:Cambridge University Press</p>	<p>Website:</p> <p>Catherine Cleophas C. Cottrill C.Ehmke J.Tierney K.(2018). Collaborative urban transportation: Recent advances in theory and practice.Germany: European Journal of Operational Research.Recuperado de https://www.sciencedirect.com/science/article/pii/S0377221718303412</p> <p>Chang A. Tsai C.(2015).Sustainable design indicators: Roadway project as an example.Taiwan: Department of Civil Engineering, National Cheng Kung University, No. 1 University Rd., Tainan 701. Recuperado de https://pdfs.semanticscholar.org/b015/00f89a51096686f6b017519b24b2415aef8a.pdf</p> <p>Christopher M. Savan C.Ng K.Ksaibati K.(2016). Benefit-cost analysis and application of intelligent compaction for transportation.Wyoming: Transportation Geotechnics.Recuperado de https://www.sciencedirect.com/science/article/pii/S2214391216300368</p> <p>Ilyichev V.,Emelyanov S,Kolchunov v.Bakayeva N, Kobeleva S.(2015). Estimation of Indicators of Ecological Safety in Civil Engineering.Moscow: International Scientific Conference Urban Civil Engineering and Municipal Facilities. Recuperado de https://core.ac.uk/download/pdf/82723648.pdf</p>

X. TEACHER PROFILE

Bachelor in English Teaching, Bachelor in Language Teaching, or Bachelor in Translation with teacher training, desirable previous experience of a minimum year in college. National Language Certification (CENNI) with a minimum of 12 points or band 3 in modules 1, 2 and 3 of the Teaching Knowledge Test (TKT for its acronym in English) or two years of experience as an English teacher in level academic. Within its qualities, the teacher must stand out for its leadership, proactivity, responsible attitude, respectful and proactive.