

## Exam 1

Course Title: **Taller de Traducción Ingeniería y Adelantos Tecnológicos**  
Course ID: **IT0628 (Marron, 25-2)**  
Cohort ID: **6A1**  
Exam Date: **11 Feb 2025**

**General Instructions:** Print your name in the upper right-hand corner of this paper. Read each item carefully. Be sure that you understand exactly what is being asked of you. Begin your answers on the backside of this paper if possible and add extra sheets of paper as needed. Be sure to write your name on any and all extra sheets of paper. Staple all exam papers together when you are finished.

Do not look at other student's exams. If you have a question or a request during the exam, raise your hand and the instructor will call on you.. Do not leave your desk without permission. If you finish early, raise your hand and the instructor will call on you.

This is a closed book exam. Attempt to answer all questions, even if you are uncertain. Whenever possible, provide answers in bullet list format with complete content. Tasks will be evaluated by sub-tasks. Three (3) points are available for each sub-task: Accuracy (1 pt), Completeness (1 pt), and Sufficiency (1 pt). Points will be awarded in 0.1 increments. Answer in English unless requested to do so otherwise.

### **Task 1 (6 pts)**

Briefly summarize your paper on the history of an engineering discipline in Mexico. Recount the general history of the engineering field you selected, but focus on the present state of the discipline in Mexico.

### **Task 2 (6 pts)**

Discuss your perspective and the general public's perspective on the difference(s) between science and engineering. Additionally answer the following question: Do you think scientists and engineers have a moral or ethical responsibility for the knowledge they create?

### **Task 3 (6 pts)**

Critique the following using the Reporter's Toolkit of questions: 1) Who is the intended audience? 2) What is the newsworthy event(s)? 3) When are the events happening? 4) Where are the events happening? 5) Why was the article written? Give your opinion of the article.

#### *The Mystery of Dark Matter: What Holds the Universe Together?*

*Dark matter is a mysterious substance that makes up approximately 27% of the universe. Unlike ordinary matter, it does not emit, absorb, or reflect light, making it invisible and detectable only through its gravitational effects on visible matter, such as stars and galaxies. Scientists hypothesize that dark matter acts as the "glue" that holds galaxies together, preventing them from flying apart despite their rapid rotation.*

*The exact nature of dark matter remains unknown, but there are several theories. One suggests it is composed of Weakly Interacting Massive Particles (WIMPs), which are hypothetical particles that rarely interact with ordinary matter. Another theory proposes axions, extremely light particles that may exist in vast quantities.*

*Efforts to detect dark matter directly have yet to yield conclusive results. Experiments like the Large Hadron Collider and underground detectors have searched for evidence but have only narrowed down possible characteristics. As a result, the nature of dark matter remains one of the most significant unsolved mysteries in modern physics.*

**Task 4 (6 pts)**

Outline Kuhn's perceptions of what constitutes 'normal science'. How do practitioners of normal science think? What are the types of problems tackled by normal science? What is the goal of normal science? What are researchers in normal science generally doing when they publish their results? Why do people build careers in normal science?

**Task 5 (6 pts)**

Briefly explain the concept of 'wicked problems' and how such problems differ from the problems of 'normal science'.

**Task 6 (6 pts)**

Translate the following excerpt from Strunk and White's, "Elements of Style" into Spanish.

16. Use definite, specific, concrete language.

*Prefer the specific to the general, the definite to the vague, the concrete to the abstract.*

*A period of unfavorable weather set in. (vague)*

*It rained every day for a week. (concrete)*

*He showed satisfaction as he took possession of his well-earned reward. (abstract)*

*He grinned as he pocketed the coin. (definite)*

*If those who have studied the art of writing are in accord on any one point, it is this: the surest way to arouse and hold the reader's attention is by being specific, definite, and concrete. The greatest writers — Homer, Dante, Shakespeare — are effective largely because they deal in particulars and report the details that matter. Their words call up pictures.*