Universidad Nacional de Ingeniería (UNI)
Escuela Profesional de
Ciencia de la Computación
Sílabo 2024-II

1. CURSO

FG211-ACM. Professional Ethics (Mandatory)

2. INFORMACIÓN GENERAL

2.1 Curso	:	FG211-ACM. Professional Ethics
2.2 Semestre	:	7^{th} Semester.
2.3 Créditos	:	3
2.4 horas	:	2 HT; 2 HP;
2.5 Duración del periodo	:	16 semanas
2.6 Condición	:	Mandatory
2.7 Modalidad de aprendizaje	:	Face to face
2.8 Prerrequisitos	:	None

3. PROFESORES

Atención previa coordinación con el profesor

4. INTRODUCCIÓN AL CURSO

This course introduces the ethical principles and professional responsibilities in computing, based on the ACM Code of Ethics and international standards. Students will analyze real-world cases, evaluate ethical dilemmas, and apply decision-making frameworks in technological contexts, considering social impact, privacy, security, and sustainability.

5. OBJETIVOS

- Analyze fundamental ethical principles in computing according to ACM/IEEE.
- Critically evaluate ethical dilemmas in technology development.
- Apply the ACM Code of Ethics to real-world case studies.

6. RESULTADOS DEL ESTUDIANTE

3) Communicate effectively in a variety of professional contexts.. (Familiarity)

4) Recognize professional responsabilities and make informed judgments in computing practice based on legal and ethical principles. (Assessment)

5) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline. (Usage)

AG-C02) Ethics: Applies ethical principles and commits to professional ethics and standards of computing practice. (Assessment)

AG-C03) Individual and Teamwork: Performs effectively as an individual and as a member or leader in diverse teams. (Usage)

AG-C04) Communication: Communicates effectively in complex computing activities. (Familiarity)

7. TEMAS

Unidad 1: Fundamentals of Computing Ethics (8 horas)	
Resultados esperados: 4,AG-C02	
Temas	**Objetivos de Aprendizaje (*Learning Outcomes*)**
• Introduction to professional ethics and morality. • ACM and IEEE Code of Ethics. • Legal and social responsibilities of computing professionals.	• Explain the principles of the ACM Code of Ethics [Familiarizarse]. • Discuss professional responsibilities in technological contexts [Usar]. • Analyze ethical conflicts in hypothetical cases [Evaluar].
Lecturas : [**ACM-Ethics2018**], [**IEEE-Ethics2020**]	

Unidad 2: Privacy, Security, and Digital Rights (10 horas)	
Resultados esperados: 4,AG-C02	
Temas	**Objetivos de Aprendizaje (*Learning Outcomes*)**
• Data privacy regulations (GDPR, Data Protection Laws). • Cybersecurity and ethical hacking. • Intellectual property rights and open-source software.	• Compare global privacy regulations [Usar]. • Evaluate ethical implications of cybersecurity vulnerabilities [Evaluar]. • Debate software licensing and open access [Usar].
Lecturas : [**GDPR2018**], [**ACM-Code2018**]	

Unidad 3: Ethics in AI and Algorithms (10 horas)	
Resultados esperados: 5,AG-C03	
Temas	**Objetivos de Aprendizaje (*Learning Outcomes*)**
• Algorithmic bias and discrimination. • Transparency and accountability in autonomous systems. • Social impact of automation.	• Identify biases in datasets and algorithms [Usar]. • Propose solutions for ethical AI systems [Evaluar]. • Debate the impact of automation on employment [Usar].
Lecturas : [**AI-Ethics2021**], [**Bostrom2014**]	

Unidad 4: Case Studies and Workshops (20 horas)	
Resultados esperados: 3,AG-C04	
Temas	**Objetivos de Aprendizaje (*Learning Outcomes*)**
• Analysis of historical cases (e.g., Cambridge Analytica, data breaches). • Role-playing: ethical decision-making in teams. • Workshop on writing ethical reports.	• Resolve complex cases using the ACM ethical framework [Evaluar]. • Collaborate in teams to propose ethical solutions [Usar]. • Draft professional reports on ethical dilemmas [Evaluar].
Lecturas : [**ACM-Cases2020**], [**IEEE-Cases2019**]	

8. PLAN DE TRABAJO

8.1 Metodología

Se fomenta la participación individual y en equipo para exponer sus ideas, motivándolos con puntos adicionales en las diferentes etapas de la evaluación del curso.

8.2 Sesiones Teóricas

Las sesiones de teoría se llevan a cabo en clases magistrales donde se realizarán actividades que propicien un aprendizaje activo, con dinámicas que permitan a los estudiantes interiorizar los conceptos.

8.3 Sesiones Prácticas

Las sesiones prácticas se llevan en clase donde se desarrollan una serie de ejercicios y/o conceptos prácticos mediante planteamiento de problemas, la resolución de problemas, ejercicios puntuales y/o en contextos aplicativos.

9. SISTEMA DE EVALUACIÓN

********* EVALUATION MISSING ********

10. BIBLIOGRAFÍA BÁSICA