Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
Isulan Campus, Isulan Sultan Kudarat
College of Industrial Technology

GEC 003– Science, Technology and Society/AT at L

UNIVERSITY VISION

A leading University in advancing scholarly innovation, multi-cultural convergence, and responsive public service in a borderless Region.

UNIVERSITY MISSION

The University shall primarily provide advanced instruction and professional training in science and technology, agriculture, fisheries, education and other related fields of study. It shall also undertake research and extension services, and provide progressive leadership in its areas of specialization.

UNIVERSITY STRATEGIC GOALS

a. Deliver quality service to stakeholders to address current and future needs in instruction, research, extension, and production
b. Observe strict implementation of the laws as well as the policies and regulations of the University
c. Acquire with urgency state-of-the-art resources for its service areas
d. Bolster the relationship of the University with its local and international customers and partners
e. Leverage the qualifications and competences in personnel action and staffing
f. Evaluate the efficiency and responsiveness of the University systems and processes

INSTITUTIONAL OUTCOMES (IO)

a. Enhance competency development, commitment, professionalism, unity and true spirit of service for public accountability, transparency and delivery of quality services
b. Provide relevant programs and professional trainings that will respond to the development needs of the region
c. Strengthen local and international collaborations and partnerships for borderless programs
d. Develop a research culture among faculty and students
e. Develop and promote environmentally-sound and market-driven knowledge and technologies at par with international standards
f. Promote research-based information and technologies for sustainable development
g. Enhance resource generation and mobilization to sustain financial viability of the university

PROGRAM OUTCOMES (PO) COMMON TO ALL PROGRAMS AND ITS RELATIONSHIPS TO INSTITUTIONAL OUTCOMES

A graduate of the BIndTech program can:	INSTITUTIONAL OUTCOMES (IO)						
	a	b	c	d	e	f	g
a. Analyze broadly defined industrial technology processes by using analytical tools that enhance creativity, innovativeness, and intellectual curiosity to improve methods, processes, and systems that meet the industry standards;	✓	✓				✓	
b. Design and implement broadly defined industrial systems, components, products, or processes to meet specific industry needs with proficiency and flexibility in the area of specialization in accordance with global standards;	✓	✓		✓		✓	

c. Apply appropriate techniques, resources, and state-of-the-art industrial technology tools to meet current industry needs and use these modern tools and processes to improve and increase entrepreneurial activities upholding the safety and health standards of business and industry;	✓		✓	✓	✓		
d. Communicate with diverse groups of clienteles the appropriate cultural language with clarity and persuasion, in both oral and written forms, including understanding and giving of clear instructions, high comprehension level, effectiveness in delivering presentations and writing documents, and articulating technological innovation outputs;	✓	✓	✓	✓	✓		
e. Develop leadership and management skills in a team-based environment by making informed decisions, keeping the team motivated, acting and delegating responsibility, and inspiring positive changes in the organization by exercising responsibility with integrity and accountability in the practice of one's profession;	✓	✓	✓	✓	✓		
f. Practice the moral responsibilities of an industrial technologist to manage and balance wider public interest and uphold the norms and safety standards of the industrial technology profession;				✓	✓	✓	✓
g. Demonstrate enthusiasm and passion for continuous personal and professional development in broadly defined industrial technology and effecting positive changes in the entrepreneurial and industrial endeavor; and	✓	✓	✓	✓	✓	✓	✓
h. Recognize the need for, and an ability to engage in lifelong learning.	✓	✓	✓	✓	✓	✓	✓

1 COURSE CODE **GEC 003**
2 COURSE TITLE **Science, Technology and Society/AT at L**
3 PREREQUISITE None
4 CREDITS 3 units

5 COURSE DESCRIPTION
This course examines the interplay between science, technology, and society, focusing on how scientific advancements and technological innovations shape societal values, institutions, and practices. Students will explore historical and contemporary issues, ethical considerations, and the impact of technology on social structures.

6 COURSE LEARNING OUTCOMES (CLO) AND ITS RELATIONSHIPS TO PROGRAM OUTCOMES

Course Learning Outcomes (CLO)	Program Outcomes							
At the end of the course, a student can:	a	b	c	d	e	f	g	
a. Understand SKSU-VGMO, Classroom Policies, Course Overview, Course Requirements and Grading System;	✓	✓	✓	✓	✓	✓	✓	
b. Analyze the historical development of science and technology and their societal impacts.	✓	✓	✓	✓	✓	✓	✓	
c. Discuss the ethical implications of scientific research and technological advancements.;	✓	✓	✓	✓	✓	✓	✓	
d. Evaluate the role of technology in shaping social norms and values.;	✓	✓	✓	✓	✓	✓	✓	
e. Investigate case studies that illustrate the relationship between science, technology, and society.;	✓	✓	✓	✓	✓	✓	✓	
f. Critically assess public policy issues related to science and technology.	✓	✓	✓	✓	✓	✓	✓	
g. Communicate effectively about the social implications of scientific and technological developments.	✓	✓	✓	✓	✓	✓	✓	
h. Propose potential solutions to contemporary issues arising from scientific and technological advancements.	✓	✓	✓	✓	✓	✓	✓	

7 COURSE CONTENTS

WEEK	CONTENT	INTENDED LEARNING OUTCOMES((ILOs)	TEACHING AND LEARNING ACTIVITIES (TLA)	OUTCOMES-BASED ASSESSMENT (OBA)	COURSE LEARNING OUTCOMES (CLOs)
1	**Course Orientation** *SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System*	At the end of the week, the student can: a. Discuss the University's VMGO, classroom policies, course overview, requirements and grading system	Discuss the VMGO of the University, the classroom policies, scope of the course, course requirements and grading system	a. Participation in discussions	abcdefg
2	**Historical Antecedents in the Cause of Science and Technology**	At the end of the week, the students can: a. Identify key historical figures in science and technology and explain their contributions to the development of modern practices. b. Analyze the evolution of significant scientific theories and how they have shaped technological advancements; c. Explore how cultural, social, and economic factors influenced the development of science and technology throughout history. d. Evaluate the impact of major historical events (e.g., wars, revolutions) on the advancement of science and technology.	a. PowerPoint presentation b. Interactive Lecture on Historical Figures c. Activity 1.1 Timeline Creation d. Device Function Demonstration e. Hands-On Material Exploration	a. Quiz b. participation c. activity outputs d. Timeline Presentation	abcdefg
3	**Intellectual Revolutions**	At the end of the week, the students can: a. Analyze how the Scientific Revolution transformed thinking and led to advancements in various fields. b. Explore the key ideas of the Enlightenment and how they influenced political and social change. c. Connect historical intellectual revolutions to current societal challenges	a. Interactive Lecture b. PowerPoint presentation c. Individual participation in discussions. d. Activity 2.1. Position Paper	a. Quiz b. participation c. activity outputs e. Presentation	abcdefg

		and innovations.			
4	**Science, Technology, and Nation Building**	At the end of the week, the students can: a. Articulate the importance of science and technology in the development and progress of nations. b. Evaluate current science and technology initiatives that support nation-building in different countries. c. Explain how innovation in science and technology drives economic growth and enhances national competitiveness.	a. Interactive Lecture on Science and Technology b. Students' participation in discussions. c. PowerPoint and video presentation. d. Quiz e. Activity 3.2 — Research Project/ Group Discussion	a. Reflection Quiz b. participation c. Activity outputs d. Research Report e. Debate Reflection	abcdefg
5	**Human Flourishing**	At the end of the week, the students can: a. Define human flourishing and identify its key components, including well-being, happiness, and fulfillment. b. Identify and analyze the various factors that contribute to human flourishing, such as relationships, purpose, and personal growth. c. Reflect on the ethical implications of pursuing human flourishing in personal and societal contexts.	a. Interactive Lecture on Human Flourishing. b. PowerPoint and video presentation. c. Group Discussion on Contributing Factors d. Activity 4.1 Ethical Debate	a. Quiz b. participation c. Conceptual Definition Assignment d. Group Reflection Report e. Debate Reflection Paper	abcdefg
6	**The Goodlife**	At the end of the week, the students can: a. Define "the good life" and identify its various interpretations across different philosophical and cultural perspectives. b. Analyze the relationship between happiness, fulfillment, and the good life. c. Identify their personal values and goals as they relate to their vision of the good life.	a. Interactive Lecture on The Good Life b. PowerPoint and video presentation. c. Group Discussion on Happiness and Fulfillment d. Activity 5.1 Personal Development Workshop e. Values Clarification Exercise	a. Quiz b. participation c. Personal Action Plan d. Personal Values Statement e. Discussion Reflection	abcdefg

7	**MIDTERM EXAM**				
8	**When Technology and Humanity Cross**	At the end of the week, the students can: a. Define the intersection of technology and humanity, exploring its implications for society. b. Analyze ethical dilemmas arising from technological advancements and their impact on human values. c. Explore how technology can enhance human capabilities and improve the quality of life.	a. Interactive Lecture on Technology and Humanity b. PowerPoint and video presentation. c. Group discussion d. Activity 6.1 Innovation Showcase	a. Quiz b. participation c. activity outputs d. Presentation and Report e. Ethical Analysis Report	abcdefg
9	**Why the Future Does Not Need Us.** a. William Nelson Joy Argument b. Murphy's Law	At the end of the week, the students can: a. Articulate the central thesis of "Why the Future Does Not Need Us," including its implications for humanity and technology. b. Evaluate the ethical considerations surrounding advancements in technology and their potential impact on humanity. c. Reflect on their personal views regarding the role of technology in their future lives.	a. Interactive Lecture and Discussion b. PowerPoint and video presentation. d. Activity 7.1 Personal Reflection Journal e. Group Analysis of Technological Impacts	a. Quiz b. participation c. Analysis Report d. Summary Essay e. Final Reflection Paper	abcdefg
10	**Information Society**	At the end of the week, the students can: a. Define the concept of an information society and identify its key characteristics. b. Analyze the impact of information technology on various sectors, such as education, business, and healthcare. c. Evaluate the issues related to the digital divide and its implications for equity in the information society.	a. Interactive Lecture b. Group Research Project c. Activity 8.1 Future Trends Discussion d. Information Literacy Workshop	a. Written Assignments. b. Conceptual Definition Assignment c. Research Presentation d. Reflection Paper	abcdefg

11	**Biodiversity and a Healthful Ecology** .	At the end of the week, the students can: a. Define biodiversity and explain its importance to ecosystem health and resilience. b. Analyze the various ecosystem services provided by biodiversity, such as pollination, water purification, and climate regulation. c. Explore and propose effective conservation strategies to protect biodiversity and promote ecological health.	a. Interactive Lecture on Biodiversity. b. Group Research Project c. Practical laboratory d. Activity 9.1 Conservation Strategy Workshop e. Personal Reflection Assignment	a. Quiz. c. Research Presentation d. Reflection Paper e, Conservation Plan Proposal	abcdefg
12	**Genetically Modified Organisms and Gene Therapy**	At the end of the week, the students can: a. Define genetically modified organisms (GMOs) and explain the techniques used for genetic modification. b. Describe the principles and techniques of gene therapy and its applications in treating genetic disorders. c. Describe the principles and techniques of gene therapy and its applications in treating genetic disorders.	a. Interactive Lecture on GMOs. b. Group Research Project c. Practical laboratory d. Activity 10.1 Ethics Workshop e. Personal Reflection Assignment	a. Conceptual Quiz b. Concept Map c. Research Presentation d. Reflection Paper	abcdefg
13	**Nanotechnology and Climate Change**	At the end of the week, the students can: a. Define nanotechnology and explain its principles and applications. b. Analyze how nanotechnology can contribute to climate change mitigation strategies. c. Evaluate the potential environmental impacts and risks associated with the use of nanotechnology.	a. Interactive Lecture on Nanotechnology. b. Group Research Project c. Practical laboratory d. Activity 11.1 Policy Workshop e. Personal Reflection Assignment	a. Conceptual Quiz b. Policy Proposal c. Research Presentation d. Reflection Paper e, Future Outlook Essay	abcdefg
14	**FINAL EXAMINATION**				

Total No. of Hours: 54

8 COURSE REQUIREMENTS AND COURSE POLICIES

COURSE REQUIREMENTS

Each student is required to:

1. Submit accomplished assignments and activities;
2. Make a PowerPoint presentation and a written summary of the assigned report;
3. Participate actively in all discussions;
4. Discuss an assigned topic to report and participate in class discussions; and
5. Pass the major exams (midterm and final)

COURSE POLICIES

Attendance: A student will be marked late if he/she enters the class 5 minutes after start of class period. Any student who comes to class 15 minutes after the scheduled time or always late for three consecutive meetings shall be marked absent.

Missed work or exam: Any student who missed to submit a work assignment or to take a test should consult the concerned instructor for immediate compliance

Cheating and Plagiarism: Any student who committed any form of academic dishonesty (e.g., copy-paste plagiarism) shall be given disciplinary action provided in the SKSU Student's Handbook

Use of Technology: Cell phones should be turned off while the session is in progress. Using laptops, notebook PCs, smart phones, and tablets shall be allowed only when needed. A scientific calculator (e.g. Casio fx-991ES) shall be utilized in solving.

9 GRADING SYSTEM AND RUBRICS FOR GRADING

GRADING SYSTEM

Midterm Grade

Midterm Examination	40%
Attendance/ Class Participation	5%
Quizzes	5%
Recitation	5%
Project/Requirements	30%
Report	15%
TOTAL	100%

Final Term Grade

GRADE

Final Term Examination	40%
Attendance/Class Participation	5%
Quizzes	5%
Recitation	5%
Project/Requirements	30%
Report	15%
TOTAL	100%

FINAL

Midterm Grade	50%
Final Term Grade	50%
TOTAL	**100%**

Materials used: Laptop, PowerPoint presentations and video clips
Books, Magazines, Online slides, Teacher-made slides

References:

English document from Technological Institute of the Philippines, 219 pages, Handout for GEC 007 (Science Technology, and Society)
https://www.coursesidekick.com/english/6370376.
J. D. McNeil, "Science, Technology, and Society: A Sociological Perspective," Wiley, 2018.
B. J. H. O'Leary, "Technology and Society: Social Networks and the New Technologies," Routledge, 2020.
C. E. H. W. Smith, "Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing," Wiley, 2017.

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