VISION: Mabalacat City College envisions itself to be the top choice in the community it serves for quality education and training by 2025.	MISSION: The Mission of Mabalacat City College is to meet the needs of its community as a center for learning aiming for open admission policy.

COURSE DESCRIPTION: This interdisciplinary field underscores the societal roles, relevance and impacts of science and technology and its dynamic context in the socio-political arena, economy, culture, environment, education and health and medicine, as these landscapes drive the advancement and innovation in S&T on a global scale. The STS perspective integrates the human agency, scientific knowledge and technological advancement as an enterprise driven by necessity, ethics and change. The course provides insight on the origins of S&T and its historical development and advancement. It also provides specific avenues for reflective critical thinking on **innovations such as genetic engineering**, **nanotechnology**, and **robotics**. Finally, STS confronts the overall impacts of these innovations on climate change and biodiversity.

PROGRAM INTENDED LEARNING OUTCOMES (PILO) (*Based on (CMO) –Policies, standards and guidelines for (Program***):**

A graduate of (Program) should be able to:
(Based on CMO No. 76 series of 2017 –Policies, standards and guidelines for Bachelor in Early Childhood Education)

- Demonstrate high level of content and pedagogical knowledge
- Demonstrate appreciation for diversity
- Manifest collaborative skills
- Demonstrate innovative thinking
- Possess critical and problem-solving skills
- Advocate for children's rights, equity, community, nationalism, and democratic ideas
- Pursue lifelong learning

PRE-REQUISITE: None

NUMBER OF UNITS: 3

LEARNING OUTCOMES:

1. Demonstrate understanding of the concepts used in science and technology.
2. Recapitulate the Historical antecedents in which social considerations changed the course of science and technology
3. Recognize human flourishing vis-à-vis the progress of science and technology such that the student may be able to define for himself/herself the meaning of the good life
4. Demonstrate in-depth understanding about the applications of technological advancement such as genetic engineering and nanotechnology in health, medicine,
5. Relate the value of a healthy lifestyle toward the holistic and sustainable development of society and the environment.

COURSE OUTLINE

Week	**Topic**	**Learning Materials** (with references following OER plagiarism and IPR policies)	**Intended Learning Outcomes** (ILO)	**Assessment Tasks** (Requirements with schedule or time allotment)	**Sustainable Development Goals (SDG) Coherence**
GLOBAL KNOWLEDGE					
1-2	**Teacher's Guide No. 1: Course Orientation and the MCC's Mission, Vision, and**	**Online PowerPoint Presentation** A. Course Outline of Science101 B. MCC's Mission, Vision, and Core Values MCC Student Handbook	A. Understand the MCC's Mission,	A. Short Reflection Paper (to be	SDG 4: Quality Education

	Core Values and Philosophical Foundations of Education A. Course Orientation a. Grading System b. Course Final Requirement B. MCC's Mission, Vision, and Core Values C. Introducing Philosophical Foundations of Education (short discussion)	MCC Official Website C. Foundations of Education | Foundations of Educational Philosophy	Vision, and Core Values by expressing their reflection; B. Identify the Philosophical Foundations of Education; and C. Explain the significant impact of the Mission, Vision, and Core Values of Mabalacat City College.	submitted at the end of the lesson using Microsoft Forms) B. Graded Recitation	
3-4	**Teacher's Guide No. 02: Introduction to the Concept of**	**Online PowerPoint Presentation** **Suggested Web Readings** ● https://www.sciencelearn.org.nz/resources/412-describing-the-nature-of-science#:~:text=Science%20is%20an%20attempt%20to,	A. Understand the nature of science, technology	A. Think-Pair-Share Activity B. Individual or Group	SDG 4: Quality Education SDG 9:

	Science and Technology A. The Nature of Science, Technology and Society B. Meanings of Science C. Meanings of Technology Relationship of Science and Technology in Society	evidence%2C%20rational%20arguments%20and%20scepticism. ● http://www.project2061.org/publications/sfaa/online/chap1.htm **Suggested Videos to view** ● https://www.youtube.com/watch?v=fIWol1NH2Uc ● https://www.youtube.com/watch?v=yi0hwFDQTSQ	and society and its application. B. Value the relationship of science and technology in the society.	Presentation C. Meaning Making (Short Reflection Essay) D. Graded Recitation E. Video Analysis	Industry, Innovation and Infrastructure SDG 11: Sustainable Cities and Communities
5-6	**Teacher's Guide No. 03: Historical antecedents in which social considerations changed the course of science and technology** A. Ancient, Middle and Modern Ages B. In the Philippines	**Online PowerPoint Presentation** **Suggested Web Readings** ● https://www.slideshare.net/memijecruz/historical-antecedents-of-science-and-technology-152541982 ● https://www.sciencedirect.com/topics/social-sciences/history-of-science **Suggested Videos to view** ● https://www.youtube.com/watch?v=f5JUQd_jDHQ ● https://www.youtube.com/watch?v=YvtCLceNf30&t=4s ● https://www.youtube.com/watch?v=-EhJ8wQm2RQ ● https://www.youtube.com/watch?v=EepDX_P28ic	A.Discuss the historical antecedents in which social considerations changed the	A.Think-Pair-Share Activity B.Individual or Group Presentation C. Meaning Making (Short Reflection Essay)	SDG 2: Zero Hunger SDG 4: Quality Education SDG 9: Industry, Innovation and Infrastructure

			course of science and technology	D.Concept Mapping E. Graded Recitation	SDG 11: Sustainable Cities and Communities
7-8	**Teacher's Guide No. 04: STS and the Human Condition** A. The Human Person flourishing in terms of science and technology B. Technology as a Way of Revealing the Good Life	**Online PowerPoint Presentation** **Suggested Web Readings** ● http://www.planetofsuccess.com/blog/2016/what-is-the-good-life/#:~:text=Living%20the%20good%20life%20means,of%20being%20solely%20self%2Dcentered. ● https://plato.stanford.edu/entries/aristotle-ethics/ **Suggested Videos to view** ● Human Flourishing in Science and Technology: (5-minute video) https://tinyurl.com/ybwen4hr ● PHILOSOPHY - The Good Life: Aristotle (5-minute video) https://tinyurl.com/yaq3nj4b ● Technology and the good life: Heidegger on question concerning technology (3-minute video) https://tinyurl.com/ybe7pfcc	A. Appraise the human person flourishing in terms of science and technology and the way of revealing the good life.	A. Think-Pair-Share Activity B. Individual or Group Presentation C. Graded Recitation	SDG 4: Quality Education SDG 3: Good Health and Well-being

NATIONAL KNOWLEDGE					
MIDTERM EXAM					
10-12	**Teacher's Guide No. 5: Humans, Technology and the Future** A. When technology and humanity cross B. Why does the future not need us?	**Online PowerPoint Presentation** **Suggested Web Readings** ● Article: Technology vs Humanity: ● The coming clash between man and machine https://tinyurl.com/yaroycqs **Suggested Videosto view** ● The Future and Humanity: The big debate about the future of work, explained (9-minute video) https://tinyurl.com/y93w4op6 ● Humans Need Not Apply (15-minute video)https://tinyurl.com/kr2hthq	A. Judge the certainties that will happen when technology and humanity cross. B.Argue why does the future not need us	A. Poll B. 10-item Quiz via MS Forms C. Graded Recitation D. Debate E. Essay	SDG 4: Quality Education SDG 9: Industry, Innovation and Infrastructure SDG 11: Sustainable Cities and Communities
13-15	**Teacher's Guide No. 6: Genetic Engineering and Nanotechnology** A. Genetically Modified Organisms: Science, Health, and Politics	**Online PowerPoint Presentation** **Suggested Web Readings** ● What is Genetic Engineering https://www.yourgenome.org/facts/what-is-genetic-engineering ● Genetic Engineering https://www.genome.gov/genetics-glossary/Genetic-Engineering#:~:text=Genetic%20engineering%20is%20the%20process,selecting%20offspring%20with%20desired%20traits. Nanotechnology https://www.sciencedaily.com/terms/nanotechnology.htm	A. Critique the age of Genetically modified organisms: Science, Health and Politics. B.Argue the application of	A.Short Reflection Paper (to be submitted at the end of the lesson using	SDG 3: Good Health and Well-being SDG 4: Quality Education SDG 9:

	B. The Nano World and Gene therapy	**Suggested Videos to view** ● What is genetic modification? https://www.youtube.com/watch?v=rx953M-tpp4 ● What is genetically modified food? https://www.youtube.com/watch?v=_FZewFiw7IE ● Genetically modified food: The Future https://www.youtube.com/watch?v=BalxcRtP-m4 ● Genetic engineering in Health and Medicine https://www.youtube.com/watch?v=xRK03f6fX4Y ● Ethics of Genetic engineering in Food:Are GMOs good or bad? https://www.youtube.com/watch?v=7TmcXYp8xu4 ● The Mighty Power of Nanomaterials https://www.youtube.com/watch?v=IkYimZBzguw ● What is nanotechnology https://www.youtube.com/watch?v=DAOFpgocfrg ● Nanotechnology: a New Frontier https://www.youtube.com/watch?v=OLa8DQkKlyU ● How Nanotechnology Can Change your Life https://www.youtube.com/watch?v=IGjCOJqINPA	Nano technology and Gene therapy	Microsoft Forms) B.Graded Recitation C.Paper/Research Proposal	Industry, Innovation and Infrastructure SDG 12: Responsible Consumption and Production
LOCAL KNOWLEDGE					
16-17	**Teacher's Guide No. 7: The Society, Biodiversity and Climate Change**	**Online PowerPoint Presentation** **Suggested Web Readings** ● Climate Change and Biodiversity	A.Learn about the important role that biodiversity	A.Short Reflection Paper (to be	SDG 4: Quality Education

	A. Biodiversity and the Healthy Society B. Climate Change, the Energy Crisis, and Environmental Awareness	https://www.science.org.au/curious/earth-environment/climate-change-and-biodiversity ● Impacts of Climate Change on the Future of Biodiversity https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1461-0248.2011.01736.x ● Biodiversity and Climate Change – A Conventions of Biological Diversity Article https://www.cbd.int/doc/bioday/2007/ibd-2007-booklet-01-en.pdf **Suggested Videos to view** ● What is biodiversity? – WWF International https://www.youtube.com/watch?v=b6Ua_zWDH6U ● Why is biodiversity important? – TED Ed https://www.youtube.com/watch?v=GK_vRtHJZu4 ● Human impacts on Biodiversity https://www.youtube.com/watch?v=wXJiHr8jWBs ● Philippine biodiversity https://www.youtube.com/watch?v=RcC6CZNllOI ● Biodiversity is collapsing worldwide https://www.youtube.com/watch?v=1cvMX82iwRM ● Battle for Biodiversity https://www.youtube.com/watch?v=QAEE3HN1RM0 ● How does climate change affect biodiversity? https://www.youtube.com/watch?v=XFmovUAWQUQ ● Climate change: Why are thousands of species facing extinction? https://www.youtube.com/watch?v=nho73BtDQtE	plays in a healthy ecosystem. B.Recognize the impact that humans are having on unique habitats around the world. C.Develop graphics designed to encourage others to care about biodiversity.	submitted at the end of the lesson using Microsoft Forms) B.Graded Recitation	SDG 12: Responsible Consumption and Production SDG 13: Climate Action SDG 14: Life Below Water SDG 15: Life On Land
FINAL EXAM/ OUTPUT					

Revision	Date	Updated by	Short Description of Changes
1.0	April 30, 2022	Sarah D. Dizon, M.Sc	Original creation of OBTLP (April 2022)
2.0	August 23, 2023	Jenny Lou P. Atienza, LPT	Revision of the content and inclusion of SDGs (August 2023)

SUMMARY OF REVISIONS:

GENERAL GUIDELINES AND POLICIES:

As the College currently follows Hybrid Delivery of Learning on its instruction, the following general guidelines and policies are set by the School to be followed by the faculty-in-charge and the students of the course.

Attendance

Checking of attendance during face-to-face classes is a requirement and will be strictly observed.

Academic Integrity

Observance of the outmost academic integrity shall be observed by the students of the course. Plagiarism, cheating, and other forms of academic dishonesty shall not be tolerated by the faculty-in-charge nor the Institute.

Accomplishment of Requirements

All requirements given by the instructor/faculty-in-charge of the course to the students shall be called/referred to/addressed as "work output". Each work output must be accomplished by the students until the schedule set by the instructor/faculty-in-charge. Final student's output must also be accomplished by the schedule set by the instructor of the course.

Line of Communication

The course's official line of communication shall be through the following:

1. Microsoft (MS) Teams Chat

The outmost respect and courtesy must be observed by students in communicating to their instructor/faculty-in-charge of the course and to their classmates and vice versa. Any form of disrespectful and discourteous way of communication shall not be tolerated by the School.

Instructional Materials (IMs)

Working students may avail of the modular type of teaching (for seminar type General Education Courses). MS Teams on-line platform may be utilized by the instructor/faculty-in-charge of the course to the students – adapting the flexible learning scheme.

Grading System:

Midterm and Final:	Class Work	(30%)
	Class Participation	(20%)
	Attendance	(10%)
	Examination	(40%)
Semestral Grade:	Semestral Grade = Midterm Grade/Final Grade	

References:

Books

-*Wenda K. Bauchspies*, *Jennifer Croissant*, *Sal Restivo* . Science, Technology and Society: A Sociological Approach (2005). Wiley-Blackwell

- *Daniel Lee Kleinman*, *Kelly Moore*, *(eds.)*. Routledge Handbook of Science, Technology, and Society. Routledge

-*Martin Bridgstock*, *David Burch*, *John Forge*, *John Laurent*, *Ian Lowe*. Science, Technology and Society: An Introduction.

Websites

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