Please Specify GE basket

☐ Life Appreciation

☐ Global Citizenship

☐ Critical Thinking

☑ Leadership

☐ Digital Literacy

GE and Course's CLOs Alignment

GE PLO	Course Learning Outcomes (CLOs)
Demonstrate the ability to take initiatives that bring about change for the well-being of the community	CLO1 Explain the principles of climate change, climate crisis, biodiversity, biodiversity crisis, and eco-systems functions and services. CLO2 Describe the threats to biodiversity and ecosystems. CLO3 Describe the impacts and consequences of climate emergency and biodiversity crisis on humanity. CLO4 Employ the principles of biodiversity and ecosystems functions to explore options to address and redress climate emergency and bi-odiversity crisis. CLO5 Work effectively in groups. CLO6 Use technology to enhance their learning experience.

TQF3 Course Specification

Section 1 General Information

1. Course Code and Title

In Thai .....

In English ICGN 128 Climate Emergency, Biodiversity Crisis, and Humanity at Risk

2. Number of Credits 2 (1-2-3).

(Theory ... hrs. Practice... hrs .. Self-study hrs. / week)

3. Curriculum and Course Type

3.1 Program of Study International Bachelor's Degree

3.2 Course Type General Education

3.3 Please Specify Course's Literacy

- ☑ MU Literacy (Core Values, SEP, GE for Human Development)
- ☐ Health Literacy (Health, Sport)
- ☐ Digital Literacy (ICT, Applied Mathematics)
- ☑ Social and Humanity Literacy (Social, Humanity, Law, Ethics, Arts)
- ☐ Communication Literacy (language, Academic Communication)
- ☑ Science and Environmental Literacy (Applied Science for Life, Environmental Responsibility)
- ☐ Finance and Management Literacy (Finance, Management, Entrepreneur)

3.4 Please Specify Relationship between course and corporate culture

☐ M - Mastery	รู้แจ้ง รู้จริง สมเหตุ สมผล
☑ A - Altruism	มุ่งผลเพื่อผู้อื่น
☑ H - Harmony	กลมกลืนกับสรรพสิ่ง
☑ I - Integrity	มั่นคงยิ่งในคุณธรรม
☐ D - Determination	แน่วแน่ทำ กล้าตัดสินใจ
☐ O - Originality	สร้างสรรค์สิ่งใหม่
☑ L - Leadership	ใฝ่ใจเป็นผู้นำ

4. Course Coordinator and Instructor

4.1 Course Coordinator Ramesh Boonratana – Science Division – 0898515700 & ramesh.boo@mahidol.ac.th

(Name – Department – Contact: phone no. and e-mail address)

4.2 Instructor Ramesh Boonratana

5. Trimester/Class Level

5.1 Trimester All trimesters (including summer session) / for all students in all Undergraduate Programs

5.2 Number of Students Allowed Approximately 30 Students

6. Pre-requisite

.....none.....

7. Co-requisites

.....none.....

Section 2 Aims and Objectives

1. Course Goals

This course creates learners' knowledge, awareness and understanding of the harmful and unsustainable anthropogenic activities that have resulted in the ongoing state of climate emergency and biodiversity crisis, placing humanity at severe risk. The course develops the learners' comprehension and appreciation of biological diversity and ecosystem functions and their contribution to addressing the climate crisis and mitigating the climate change. The course further allows learners to develop and demonstrate actions or potential actions that can mitigate and adapt to the impacts of climate change, and that can arrest further loss of biodiversity.

Course Goals: From the overview perspective of the course instructor, based on the principles, knowledge and skills related to the Program, describe the learning skill the students can develop and apply for further study or work in the future according to the goals set by the instructor in-charge. This has to correspond to MU-GE Module LOs to equip the students with MU-Graduate Attributes.

2. Objectives of Course Development/Revision

2.1 Course Objectives

2.1.1 Learn fundamental principles of climate change, climate crisis, biodiversity, biodiversity crisis, and ecosystems functions and services.

2.1.2 Understand the threats to biodiversity and ecosystems, and the impacts and consequences of climate emergency and biodiversity crisis on humanity.

2.1.3 Explore options to address and redress climate emergency and biodiversity crisis.

Course Objectives: Describe in detail the knowledge, understanding, skills and abilities of students after the course learning achievement, from the perspective of the course instructor in-charge. The objectives can be written based on the domains of learning (cognitive, affective, psychomotor, etc.)

2.2 Course-level Learning Outcomes (CLOs)

By the end of the course, students are able to

1. CLO1 Explain the principles of climate change, climate crisis, biodiversity, biodiversity crisis, and ecosystems functions and services.
2. CLO2 Describe the threats to biodiversity and ecosystems.
3. CLO3 Describe the impacts and consequences of climate emergency and biodiversity crisis on humanity.
4. CLO4 Employ the principles of biodiversity and ecosystems functions to explore options to address and redress climate emergency and biodiversity crisis.
5. CLO5 Work effectively in groups.
6. CLO6 Use technology to enhance their learning experience.

Remarks:

A. "The course-level expected learning outcomes (CLOs)": Based on the course objectives, explain the knowledge, abilities and skills of students that can be measured and evaluated to make sure that the students get the learning experience, pass the course evaluation based on criteria defined, and achieve the objectives in section 2.1 and the performance based on the standards defined.

B. A good CLO should consist of 3 structural components:
   1. AN ACTION VERB: Identify the ability or skill that the students must perform to be observed or measured.
   2. LEARNING CONTENT: Identify the knowledge that the students will gain and apply for other courses in the program or for future work.
   3. CRITERIA OR STANDARD: Identify the criteria or standards of competency defined in the course to judge the students' achievement.

C. In a CLO, more than one learning domain can be included.

D. Each course should have about 4 – 8 CLOs.

Section 3 Course Description and Implementation

1. Course Description

(In Thai)..... Course Goals should be reflected. .....
.....

(In English) anthropogenic activities; biodiversity crisis; biodiversity loss; biological diversity; climate change; climate crisis; climate emergency; ecosystem functions; harmful and unsustainable practices; humanity at risk; mitigate and adapt; threats, impacts and consequences.

.....

2. Number of Hours Per Trimester

Theory (hours)	Practice (hours)	Self-study (hours)
12	24	36

3. Number of Hours per Week for Individual Advice

4 hours per week at 1 hour per day available at fixed schedule, and if required, students may schedule an appointment with the lecturer or walk in during office hours.

Identify the following information: The process or method that the person in-charge uses and time allocated for individual students.

Section 4: Development of the expected learning outcomes

1. A brief summary of the knowledge or skills expected to develop in students; the course-level expected learning outcomes (CLOs)

   By the end of the course, students who successfully complete the course will be able to:

   1. CLO1 Explain the principles of climate change, climate crisis, biodiversity, biodiversity crisis, and ecosystems functions and services.
   2. CLO2 Describe the threats to biodiversity and ecosystems.
   3. CLO3 Describe the impacts and consequences of climate emergency and biodiversity crisis on humanity.
   4. CLO4 Employ the principles of biodiversity and ecosystems functions to explore options to address and redress climate emergency and biodiversity crisis.
   5. CLO5 Work effectively in groups.
   6. CLO6 Use technology to enhance their learning experience.

   .....

2. How to organize learning experiences to develop the knowledge or skills stated in number 1 and how to measure the learning outcomes

Course Code	Teaching and learning experience management	Learning outcome measurements
CLO1	Lecture, discussion, e-learning, assignment	Examination, written report, and oral presentation
CLO2	Lecture, discussion, e-learning, assignment	Examination, written report, and oral presentation
CLO3	Lecture, discussion, e-learning, assignment	Examination, written report, and oral presentation
CLO4	Lecture, discussion, e-learning, assignment	Examination, written report, and oral presentation
CLO5	Discussion, e-learning, assignment	Written report and oral presentation
CLO6	Discussion, e-learning, assignment	Written report and oral presentation

Section 5 Lesson Plan and Evaluation

1. Lesson Plan

Week	Topic/Details	Number of hours		Teaching activities/ media	Instructors
		Classroom sessions	Practice sessions		
1	Principles of biodiversity	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
2	Principles of ecosystem services	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
3	Biodiversity crisis	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
4	Mass extinctions	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
5	Threats and impacts to biodiversity and ecosys-tems	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
6	Threats and impacts to biodiversity and ecosys-tems	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
7	Principles of climate change	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
8	Consequences of biodi-versity loss and loss of ecosystems services	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
9	Climate crisis: conse-quences to humanity	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
10	Biodiversity conservation and ecosystem protection	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
11	Climate change adapta-tion and mitigation	1	2	Lecture, discussion, and e-learning	Ramesh Boonratana
12	Actions and options	1	2	Students' presentations, dis-cussion	Ramesh Boonratana
	Total	12	24		

2. Evaluation of the CLOs

2.1 Measurement and Evaluation of learning achievement

a. Formative assessment

N/A

.....

.....

b. Summative assessment

(1) Tool and weight for measurement and evaluation

Learning Outcomes	Measurement Method	Weight (Percentage)	
CLO1 Explain the principles of climate change, climate crisis, biodiversity, biodiversity crisis, and ecosystems functions and services.	Written exams: MCQ, short responses, and essays	10	20
	Assignment: report and oral presentation	10	
CLO2 Describe the threats to biodiversity and ecosystems.	Written exams: MCQ, short responses, and essays	10	20
	Assignment: report and oral presentation	10	
CLO3 Describe the impacts and consequences of climate emergency and biodiversity crisis on humanity.	Written exams: MCQ, short responses, and essays	10	20
	Assignment: report and oral presentation	10	
CLO4 Employ the principles of biodiversity and ecosystems functions to explore options to address and redress climate emergency and biodiversity crisis.	Written exams: MCQ, short responses, and essays	5	25
	Assignment: report and oral presentation	20	
CLO5 Work effectively in groups.	Peer evaluation	5	10
	Assignment: report and oral presentation	5	
CLO6 Use technology to enhance their learning ex-	Written report, class assignments, presentations and	5	5

perience.	online collaborative work		
รวม		100	100

(2) Measurement and evaluation

Grade	Achievement	Final Score (% range)	GPA
A	Excellent	90-100	4.0
B+	Very good	85-89	3.5
B	Good	80-84	3.0
C+	Fairly good	75-79	2.5
C	Fair	70-74	2.0
D+	Poor	65-69	1.5
D	Very poor	60-64	1.0
F	Fail	Less than 60	0.0

C+ to A (70-100; 2.5-4) = S; D to C (60-69; 1-2)= O; F (<60; 0)= U

Judgment of the learning outcomes in the general education courses

a. Use the symbols O, S, and U

b. Identify the judgment standard for each symbol.

c. Identify the symbol deemed as "pass."

(3) Re-examination (if the course allows any)

N/A

Re-examination: Explain the situation in which the course will provide students with re-examination and the judgement of the re-examination results.

3. Students' Appeal

N/A

Identify the following information: The method or channel the students will appeal to the course, the staff member who receives the appeals, and procedures or managing processes

Section 6 Teaching Resources

1. Required Texts

1).....

2).....

3).....

4).....

2. Suggested Materials

1) Committee on Climate Change (2017) UK Climate Change Risk Assessment 2017 Synthesis Report: priorities for the next five years, London: Committee on Climate Change.

2) Groombridge, B. and Jenkins, M.D. (2002). World Atlas of Biodiversity: Earth's Living Resources in the 21st Century. Berkeley: University of California Press.

3) Hannah, L., T. Lovejoy and S. Schneider (2005). Biodiversity and climate change in context. In T. Lovejoy and L. Hannah, eds., Climate Change and Biodiversity. Yale University, New Haven, pp. 3-14.

4) Hansen, L.J., J.L, Biringer, J.R, Holfman (2003). Buying Time: A User's Manual for Building Resistance and Resilience to Climate Change in Natural Systems, WWF, 2003. Hansen, L.J., J.L, Biringer, J.R, Holfman (eds)

5) Houghton, J. (1994). The greenhouse effect. In J. Houghton, Global Warming, the Complete Briefing, Lion Publishing, Oxford, pp. 19-28

6) Houghton, J. (1994). The greenhouse gases. In J. Houghton, Global Warming, the Complete Briefing, Lion Publishing, Oxford, pp. 29-45.

7) IPBES (2019) Global assessment report on biodiversity and ecosystem services of the Intergovern-mental Science- Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES Secretariat, Bonn, Germany.

8) IPBES (2019) Global assessment report on biodiversity and ecosystem services of the Intergovern-mental Science- Policy Platform on Biodiversity and Ecosystem Services.

9) IPCC (2018) Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S.

Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.

10) IPCC (2014) Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.
11) Karl, T., and K. Trenberth (2005). What is climate change? In T. Lovejoy and L. Hannah, eds., Climate Change and Biodiversity. Yale University, New Haven, pp. 15 – 28.
12) Kinzig, A., Perrings, C., Scholes, B. 2007 Ecosystem services and the economics of biodiversity conservation. Working paper (downloaded November 2007). http://www.public.asu.edu/~cperring/Kinzig%20Perrings%20Scholes%20(2007).pdf
13) Lenoir J. & Svenning J.C. (2015) Climate‐related range shifts – a global multidimensional synthesis and new research directions, Ecography, 38(1), 15-28.
14) Midgley, G., Marais, S., Barnett, M., Wågsæther, K., 2012. Biodiversity, climate change and sustainable development—harnessing synergies and celebrating successes. Final technical report. Conservation South Africa, Indigo Development and Change, Nieuwoudtville, South Africa.
15) Millennium Ecosystem Assessment (2003). Summary. Ecosystems and Human Well-being: A Framework for Assessment. Island Press, Washington, DC, pp. 1-25.
16) Millennium Ecosystem Assessment (2005). Summary for decision-makers, Ecosystems and Human Well-being: Synthesis. Island Press, Washington, DC, pp. 1-24.
17) Raper, S., and F. Giorgi (2005). Climate change projections and models. In T. Lovejoy and L. Hannah, eds., Climate Change and Biodiversity. Yale University, New Haven, pp. 199-210.

3. **Other Resources (if any)**

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Section 7 Evaluation and Improvement of Course Implementation

1. Strategy for Course Effectiveness Evaluation by Students

Student feedback of instructors, teaching methods and materials, and course content through MUIC student evaluation forms

2. Strategy for Teaching Evaluation

Evaluation of effectiveness based on student evaluation scores and comments
Evaluation through peer observations by co-instructor or other Division faculty

3. Teaching Improvement

Adjustments based on student feedback, personal observations, comments from peer observations and discussions with supervisor and/or other Division faculty in one-on-one and/or group meetings as specified by MUIC guidelines.

4. Verification of Standard of Learning Outcome for the Course

Verification through student performance on assessments based on MUIC/Division standards.
Describe the process used to verify student achievement in accordance with the course learning outcomes, such as the passing score test, test analysis, or assignment. The processes may be different for different courses or for different learning outcomes.

5. Revision Process and Improvement Plan for Course Effectiveness

Course instructors (and coordinator/supervisor) will meet to discuss results of student evaluations and student performance based on learning outcomes in order to identify point for improvement.
Strategy for improvement set according to MUIC/Division guidelines.

Remarks:

a. Identify ways to gain information used as input to evaluate the course effectiveness. The information includes teaching assessment, such as data from classroom observers and a teaching team or the student's academic performance. Also identify the analysis methods of the input data for teaching and course management improvement.

b. Describe mechanisms and methods to improve the course teaching and effectiveness such as an Executive Board Meeting to review and improve the course (which is reported in the TQF5 in every trimester), classroom research, and workshops for teaching improvement.

Appendix

Relations between the course and the General Education

Table 1 Relations between CLOs and MU-GE Module LOs (numbers in the table = Sub LOs)

(Course Code)	MU-GE LOs								
	MLO1	MLO2	MLO3	MLO4	MLO5	MLO6	MLO7	MLO8	MLO9
CLO1 Explain the principles of climate change, climate crisis, biodiversity, biodiversity crisis, and ecosystems functions and services.	1.1, 1.2					6.1			
CLO2 Describe the threats to biodiversity and ecosystems.	1.1, 1.2, 1.3					6.2			
CLO3 Describe the impacts and consequences of climate emergency and biodiversity crisis on humanity.	1.1, 1.2, 1.3					6.2			
CLO4 Employ the principles of biodiversity and ecosystems functions to explore options to ad-dress and redress climate emergency and biodiversity crisis.	1.2, 1.3, 1.4		3.1, 3.2	4.1, 4.2	5.1	6.3, 6.4	7.1, 7.2, 7.3	8.1, 8.2, 8.3	9.1, 9.2
CLO5 Work effectively in groups.		2.2	3.1, 3.2	4.2	5.1, 5.2	6.1, 6.2, 6.3, 6.4	7.1, 7.2, 7.3	8.1, 8.2, 8.3, 8.4	9.1, 9.2
CLO6 Use technology to enhance their learning experience.	1.2, 1.3				5.2	6.4	7.3	8.1, 8.2 8.3	9.1

Remarks :

a. Each CLO should clearly correspond to the MU-GE LOs at the Sub LO level to show a clear connection and is shown in "Table 1".

b. Describe the MU-GE LOs and Sub LOs in details in "Table 2 LOs that the course is responsible for".

Table 2 LOs that the course is responsible for

MU-GE LOs	Sub LOs
MLO1 Create & construct an argument effectively as well as identify, critique and evaluate the logic & validity of arguments	1.1. Identify concepts related to the context of learned issues/topics
	1.2 Demonstrate ICT literacy: use appropriate technology to find, evaluate, and ethically used information
	1.3 Collect, analyze, synthesize data, & evaluate information and ideas from multiple sources relevant to issues/problems
	1.4 Synthesize information to arrive at logical reasoning
MLO2 Select & use techniques and methods to solve open-ended, ill-defined and multistep problems	2.2 Make judgement & decision through correct analysis, inferences, and evaluations on quantitative basis and multiple perspectives
MLO3 Acquire specific strategies & skills within a particular discipline and adapt them to a new problem or situation	3.1 Connect, synthesize and/or transform ideas or solutions within a particular framework
	3.2 Integrate alternative, divergent, or contradictory perspectives or ideas in the solution of a problem or question
MLO4 Create a novel or unique ideas, question, format, or product within a particular framework	4.1 Create an original explanation or solution to the issues/problems
	4.2 Articulate the rationale for & consequences of his/her solution- identify opportunities & risk
MLO5 Explore and situate oneself in a new physical environment and intellectual perspectives	5.1 Demonstrate cultural competencies and adaptabilities in different working environments 5.2 Interact with others respectfully, either as a team member or leader, to create a productive teamwork
MLO6 Act autonomously within context of relationships to others, law, rules, codes, and values	6.1 Demonstrate an understanding of the principles upon which sustainable ecosystems and societies are built
	6.2 Identify the national & global challenges associated with

	current economic, political, and social systems
	6.3 Exhibit characteristics of responsible citizenship
	6.4 Work effectively in diverse team (and multi-cultural settings)
MLO7 Apply ethical frameworks or principles and consider their implications in his/her decision-making and interacting with others	7.1 Identify ethical issues and recognize different viewpoint and ideologies
	7.2 Guide & lead others
	7.3 Apply principles of ethical leadership, collaborative engagement, and respect diversity
MLO8 Use a variety of means/ technologies to communicate effectively and purposefully; e.g., share information/ knowledge, express ideas, demonstrate or create individual & group product, etc.	8.1 Communicate/present ideas effectively both oral & written forms to appropriate audience, such as verbal discussion with peers, and written project reports.
	8.2 Prepare a purposeful oral presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.
	8.3 Prepare written documents to express ideas/solutions using different writing technologies, and mixing texts, data, and images.
	8.4 Demonstrate competence in a second or additional language
MLO9 Collaborate and work effectively as part of a student group/team member to arrive at the team shared-goals in time	9.1 Collaborate effectively with others as a responsible team member to achieve team goals in time
	9.2 Interact with others respectfully, either as a team member or leader, to create a productive teamwork

MU-GE Module LOs: At the end of studying MU-GE Module, successful students will be able to

Competences	LOs:	Sub LOs:

Competences	LOs:	Sub LOs:
1. **Critical thinking & Analysis**: Use various sources and methods to collect and manage data & information and make a logical judgement and decision to arrive at a solution or problem solving relevant to real-world issues/ problems	1. Create & construct an argument effectively as well as identify, critique and evaluate the logic & validity of arguments	1. Identify concepts related to the context of learned issues/topics 2. Demonstrate ICT literacy: use appropriate technology to find, evaluate, and ethically used information 3. Collect, analyze, synthesize data, & evaluate information and ideas from multiple sources relevant to issues/problems 4. Synthesize information to arrive at logical reasoning
	2. Select & use techniques and methods to solve open-ended, ill-defined and multistep problems	1. Apply simple mathematical methods to the solution of 'real-world' problems 2. Make judgement & decision through correct analysis, inferences, and evaluations on quantitative basis and multiple perspectives 3. Apply concept of process management to solve problems
2. Creativity & Innovation: Show capability to initiate alternative/ new ways of thinking, doing things or solving problems to improve his/her or team solutions/ results by applying the evidence-based process management concepts	3. Acquire specific strategies & skills within a particular discipline and adapt them to a new problem or situation	1. Connect, synthesize and/or transform ideas or solutions within a particular framework 2. Integrate alternative, divergent, or contradictory perspectives or ideas in the solution of a problem or question
	4. Create a novel or unique ideas, question, format, or product within a particular framework	1. Create an original explanation or solution to the issues/problems 2. Articulate the rationale for & consequences of his/her solution- identify opportunities & risk 3. Implement innovation through process management approach
	5. Explore and situate oneself in a new physical environment and intellectual perspectives	1. Demonstrate cultural competencies and adaptabilities in different working environments 2. Resort to multi-dimensional settings and tools to acquire knowledge and skills relevant to the problems or situation at hand

Competences	LOs:	Sub LOs:
3. Global perspectives & Ethics: Express one's own ideas, interact with others, guide or lead team, as proper, as an ethically-engaged and responsible member of the society	6. act autonomously within context of relationships to others, law, rules, codes, and values	1. Demonstrate an understanding of the principles upon which sustainable ecosystems and societies are built 2. Identify the national & global challenges associated with current economic, political, and social systems 3. Exhibit characteristics of responsible citizenship 4. Work effectively in diverse team (and multi-cultural settings)
	7. Apply ethical frameworks or principles and consider their implications in his/her decision-making and interacting with others	1. Identify ethical issues and recognize different viewpoint and ideologies 2. Guide & lead others 3. Apply principles of ethical leadership, collaborative engagement, and respect diversity
4. Communication: Communicate effectively and confidently using oral, visual, and written language	8. Use a variety of means/ technologies to communicate effectively and purposefully; e.g., share information/ knowledge, express ideas, demonstrate or create individual & group product, etc.	1. Communicate/present ideas effectively both oral & written forms to appropriate audience, such as verbal discussion with peers, and written project reports. 2. Prepare a purposeful oral presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors. 3. Prepare written documents to express ideas/solutions using different writing technologies, and mixing texts, data, and images. 4. Demonstrate competence in a second or additional language
5. Collaboration and Working with team: Collaborate and work effectively with team to arrive at team goals	9. Collaborate and work effectively as part of a student group/team member to arrive at the team shared-goals in time	1. Collaborate effectively with others as a responsible team member to achieve team goals in time 2. Interact with others respectfully, either as a team member or leader, to create a productive teamwork