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Please Specify GE basket

- Life Appreciation

- Global Citizenship

- Critical Thinking

- Leadership

■ Digital Literacy

GE and Course's CLOs Alignment

Digital literacy	Course Learning Outcomes (CLOs)
PLO8 Demonstrate the ability to use digital technology to manage, communicate, and stimulate knowledge and reasoning	CLO1 Describe basic functions of common digital tools in everyday life, including computers, the internet and social platforms and understand how digital tools influence society
	CLO2 Improve digital information literacy through the use of desktops and mobile computers for in-class group work and self-learning

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Digital literacy	Course Learning Outcomes (CLOs)
	CLO3 Recognize copyright, creative commons and other intellectual property right and understand digital rights and how to protect personal data
	CLO4 Work cooperatively in a group with each member assigned a role and responsible for timely completion of tasks
	CLO5 Exhibit proficiency using operating system and basic software

Revised: April 2021

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TQF 3 Course Specification

Section 1 General Information

1. Course Code and Title

In Thai   ICGN119 คอมพิวเตอร์เบื้องต้น

In English   ICGN119 Computer Essentials

2. Number of Credits   4 (4-0-8)

(Theory 4 hrs. Practice 0 hrs. Self-Study 8 hrs./week)

3. Curriculum and Course Type

3.1 Curriculum   Bachelor Degree Program (Thai)

Bachelor Degree Program (International)

3.2 Course Type   General Education

3.3 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 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 Lecturer**

    4.1   Course Responsible Lecturers <u>Brian Phillips, Science Division, (662) 700-5000x3520, brian.phi@mahidol.edu</u>

    4.2   Lecturers   <u>Brian Phillips</u>

5. **Semester/Class Level**

    5.1 Semester   <u>All</u> / Class Level <u>For all students at MUIC</u>

    5.2 Number of Students Allowed   Approximately <u>30</u> Students

6. **Pre-requisite**

    <u>No</u>

7. **Co-requisites**

    <u>No</u>

8. **Study Site Location**   <u>MUIC, Mahidol University, Salaya Campus, Nakornpathom</u>

9. **Date of Preparation/Latest Revision of the Course Specifications**

    Day <u>03</u> Month <u>01</u> Year <u>2023</u>

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Section 2 Aims and Objectives

1. **Course Goals**

    1.1   Improve digital literacy knowledge and skills

    1.2   Develop computer literacy skills to an intermediate level expected of a technologically-adept graduate

    1.3   Improve information literacy searching skills so that a student can critically evaluate information quality

    1.4   Develop team interactivity skills and self-learning through the use of in-class cooperative m-learning activities

2. Objectives of Course Development/Revision

2.1 Course Objectives

This course aims to provide knowledge and abilities as follows:

Develop knowledge and skills of basic computer concepts and describe and **differentiate** components and how they **operate**. **Show** mastery of the information literacy process through **demonstrating** the ability to search, **select** and **evaluate** information and then **prepare** new content, while **assessing** the legal and ethical considerations of copyright and other licensing options. Able to **analyze** a case, **determine** and **abstract** a problem and by **applying** computer concepts, **develop** solutions.

2.2 Course-level Learning Outcomes: CLOs

On completion of the course, the students will be able to

1. CLO1 **Describe** basic functions of common digital tools in everyday life, including computers, the internet and social platforms and **recognize** how digital tools influence society

2. CLO2 **Improve** digital information literacy by using desktops and mobile devices for in-class group work and self-learning

3. CLO3 **Understand** copyright, creative commons and other intellectual property right

4. CLO4 Work cooperatively in a group with each member **assigned** a role and responsible for timely **completion** of tasks

5. CLO5 **Show** proficiency in **use** of operating system and basic software

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Section 3 Course Description and Implementation

1. Course Description

(Thai) พัฒนาความรู้และทักษะในการใช้คอมพิวเตอร์และการเข้าถึงเทคโนโลยีสารสนเทศและการสื่อสาร การเรียนรู้เบื้องต้นด้านฮาร์ดแวร์ และซอฟแวร์ที่พบในชีวิตประจำวัน ระบบปฏิบัติการคอมพิวเตอร์ต่างๆ ระบบรักษาความปลอดภัยบนคอมพิวเตอร์ และการใช้สื่อสารสนเทศในการสื่อสารอย่างถูกต้องด้านจริยธรรม

(English) Digital literacy relating to computer literacy and information literacy; computer hardware and its general functions; operating systems; software packages and their daily use; computer security; the ethical use of intellectual property.

2. Number of hours per semester

Theory (hours)	Practice (hours)	Self-study (hours)
48	0	96

3. Number of Hours per Week for Individual Advice

4 hours per week set aside for student advice and another 4 hours available during office hours. Schedule posted publicly by Science Division at the beginning of term. Students can email or chat online any time.

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)**

   On completion of the course, students will be able to:

   1. CLO1 Describe basic functions of common digital tools in everyday life, including computers, the internet and social platforms and recognize how digital tools influence society

   2. CLO2 Improve digital information literacy by using desktops and mobile devices for in-class group work and self-learning

   3. CLO3 Understand copyright, creative commons and other intellectual property right

   4. CLO4 Work cooperatively in a group with each member assigned a role and responsible for timely completion of tasks

   5. CLO5 Show proficiency in use of operating system and basic software

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

CLOs	Teaching and learning experience management							
	Lecture: Socratic style	Inclass mLearning: inquiry-based cooperative team learning	Computer lab demonstration: software skills	Online LMS: Google Classroom & class website	Handout & PowerPoint: required reading	Class Videos	Zoom breakout room/class Discord server	Student presentation
CLO1	X			X	X	X		X
CLO2			X	X	X	X		
CLO3	X	X			X	X		X
CLO4		X			X		X	X
CLO5		X	X	X	X	X		

CLOs	Learning outcomes measurements							
	Midterm class: short essay	Midterm lab: short essay	Final case: case study	Final lab: short essay	Inclass mLearning: individual	Inclass mLearning: group	Inclass mLearning: peer evaulation	Class/lab homework
CLO1	X		X		X			
CLO2	X	X		X	X	X		
CLO3			X		X	X		
CLO4			X			X	X	
CLO5		X		X	X			X

SECTION 5 LESSON PLAN AND EVALUATION

1. **Lesson Plan**

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
1.1	Intro to Computers	2:00	:00	Socratic lecture using online classroom: use any mobile device, PPT posted on LMS and website, class video posted unlisted, playlist link in LMS	BP
1.1	Attendance	:05	:00	Spreadsheet	BP
1.1	Join Line group, Discord server, introduce website	:15	:00	Socratic lecture using online classroom: Line group	BP
1.1	Define digital literacy, objectives, CLO	:30	:00	Socratic lecture using online classroom: PPT	BP
1.1	Break	:10	:00		BP
1.1	Attendance	:05	:00	Spreadsheet	BP
1.1	Schedule, holidays, exam dates, assessment	:15	:00	Socratic lecture using online classroom: PPT	BP
1.1	Desribe teaching method, explain m-learning mCpath	:20	:00	Socratic lecture using online classroom: PPT	BP

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
1.1	Mobile media survey	:20	:00	In-class survey: LMS Google Classroom & Google Forms	BP
1.2	**Windows OS start, raster graphics software 1**	**2:00**	**:00**	Software demonstration & team interaction: use desktop or laptop, Windows OS & Gimp, PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
1.2	Attendance	:05	:00	Spreadsheet	BP
1.2	Operating system: Windows 10 Start, Taskbar, Control Panel	:45	:00	Software demonstration: Microsoft Windows 10 OS	BP
1.2	Break	:10	:00		BP
1.2	Attendance	:05	:00	Spreadsheet	BP
1.2	Assign randomized teams for mCpath	:05	:00	Randomized using random.org, posted in Line group	BP
1.2	Intro to raster graphics software: windows, toolbox, layers	:20	:00	Software demonstration Gimp app	BP
1.2	Design your avatar	:30	:00	Group interaction (ice breaker for teams): Zoom breakout, Gimp app	BP
1.3	**MacOS dock, raster graphics software 1 (for Mac users)**	**1:00**	**:00**	Software demonstration: MacOS, PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
1.3	Attendance	:05	:00	Spreadsheet	BP
1.3	Operating system: MAcOS dock, menur bar, notifications	:55	:00	Software demonstration: MacOS operating system	BP
2.1	**Computer platforms**	**2:00**	**:00**	Socratic lecture using online classroom: use any mobile device, PPT posted on LMS, class video posted unlisted, playlist link in LMS, in-class survey using Google Forms	BP

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
2.1	Attendance	:05	:00	Spreadsheet	BP
2.1	Reminder of attendance policy, take notes	:05	:00	Socratic lecture using online classroom: PPT	BP
2.1	Computer Model and numbering bytes	:10	:00	Socratic lecture using online classroom: PPT	BP
2.1	Computer platforms	:30	:00	Socratic lecture using online classroom: PPT	BP
2.1	Break	:10	:00		BP
2.1	Attendance	:05	:00	Spreadsheet	BP
2.1	Students' use of computers	:35	:00	Socratic lecture using online classroom: Share Mobile Media Survey results, PPT	BP
2.1	Students select mCpath roles for next week	:20	:00	Group interaction: Zoom breakout	BP
2.2	**Window OS files, raster graphics software 2**	**2:00**	**:00**	**Software demonstration: use desktop or laptop, Windows OS, Google Search, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
2.2	Attendance	:05	:00	Spreadsheet	BP
2.2	Prior class review	:05	:00	Class discussion: PPT posted on LMS	BP
2.2	Operating system: Windows 10 file system	:45	:00	Software demonstration: Microsoft Windows 10 OS	BP
2.2	Break	:10	:00		BP
2.2	Raster graphics software: selection tools	:45	:00	Gimp app	BP
2.2	Review	:10	:00	Socratic lecture using online classroom: PPT	BP
2.3	**MacOS files, raster graphics software 2 (for Mac users)**	**1:00**		**Software demonstration: use desktop or laptop, MacOS, PPT posted on LMS,**	**BP**

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
				class video posted unlisted, playlist link in LMS	
2.3	Attendance	:05	:00	Spreadsheet	BP
2.3	Prior class review	:05	:00	Class discussion: PPT posted on LMS	BP
2.3	Operating system: MacOS 10 file system	:50	:00	Software demonstration: MacOS operating system	BP
3.1	**Input, displays (mCpath)**	**2:00**	**:00**	**In-class cooperative team m-learning (mCpath) using Google Search, YouTube. Auditor, presenter, reporter, researcher and peer evaluation due Saturday via Google Classroom in Google Form. Instructor feedback, peer feedback. In-class presentations**	**BP**
3.1	Attendance	:05	:00	Spreadsheet	BP
3.1	mCpath instructions	:10	:00	Socratic lecture using online classroom: PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
3.1	mCpath mobile learning session	:50	:00	Group interaction: Zoom breakout or class Discord Server	BP
3.1	mCpath presentations	:55	:00	Students in-class presentation per group. Allowed to redo and submit unlisted through YouTube. Reports for Auditor, Presenter, Reporter, Researcher due Saturday. Students give peer evaualtion for each member of their group	BP

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
3.2	Windows OS troubleshoot, search	2:00	:00	Software demonstration: use desktop or laptop, Windows 10, Gimp app, PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
3.2	Attendance	:05	:00	Spreadsheet	BP
3.2	Reflection on mCpath session	:05	:00	Class discussion	BP
3.2	Operating system: Windows troubleshooting	:40	:00	Software demonstration: Microsoft Windows 10 OS	BP
3.2	Break	:10	:00		BP
3.2	Attendance	:05	:00	Spreadsheet	BP
3.2	Search: search terms & filters	:45	:00	Google search	BP
3.2	Review	:10	:00	Group discussion	BP
3.3	MacOS Troubleshoot, search (for Mac users)	1:00		Software demonstration: use desktop or laptop, MacOS, PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
3.3	Attendance	:05	:00	Spreadsheet	BP
3.3	Reflection on mCpath session	:05	:00	Class discussion	BP
3.3	Operating system: MacOS troubleshooting	:50	:00	Software demonstration: MacOS operating system	BP
4.1	Binary, memory	2:00	:00	Socratic lecture using online classroom: use any mobile device, PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
4.1	Attendance	:05	:00	Spreadsheet	BP
4.1	Reflection on mCpath session	:05	:00	Class discussion	BP
4.1	Transistors	:05	:00	Socratic lecture using online classroom: PPT posted on LMS	BP

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		Theory*	Practice**		
4.1	Counting in binary	:30	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
4.1	Bits and bytes, alphanumeric code	:20	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
4.1	Break	:10	:00		BP
4.1	Attendance	:05	:00	Spreadsheet	BP
4.1	RAM, ROM, CPU	:30	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
4.1	Review	:10	:00	Class discussion: PPT posted on LMS	BP
4.2	**Presentation software 1, raster graphics software 3**	**2:00**	**:00**	**Software demonstration: use desktop or laptop, PowerPpoint, Gimp app, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
4.2	Attendance	:05	:00	Spreadsheet	BP
4.2	PowerPoint: introduction	:45	:00	Software demonstration: Powerpoint, class discussion	BP
4.2	Break	:10	:00		BP
4.2	Attendance	:05	:00	Spreadsheet	BP
4.2	Raster graphics software: masks	:30	:00	Software demonstration: Gimp app	BP
4.2	Edited selfie	:25	:00	Group interaction: zoom breakout or Discord, individual projects using Gimp app	BP
5.1	**CPU**	**2:00**	**:00**	**Socratic lecture using online classroom: use any mobile device, PPT posted on LMS,**	**BP**

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
				class video posted unlisted, playlist link in LMS	
5.1	Attendance	:05	:00	Spreadsheet	BP
5.1	Prior class review	:05	:00	Class discussion: PPT posted on LMS	BP
5.1	Parts of CPU, types of CPU	:40	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
5.1	Break	:10	:00		BP
5.1	Attendance	:05	:00	Spreadsheet	BP
5.1	Motherboard	:15	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
5.1	Cache, computer bus, GPU	:35	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
5.1	Review	:05	:00	Class discussion: PPT posted on LMS	BP
5.2	**Presentation software 2**	**2:00**	**:00**	**Software demonstration: use desktop or laptop, PowerPoint, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
5.2	Attendance	:05	:00	Spreadsheet	BP
5.2	Views	:20	:00	Software demonstration: PowerPoint	BP
5.2	Slide Master, custom layouts	:25	:00	Software demonstration: PowerPoint	BP
5.2	Break	:10	:00		BP
5.2	Attendance	:05	:00	Spreadsheet	BP
5.2	Templates & themes	:30	:00	Software demonstration: PowerPoint	BP

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		Theory*	Practice**		
5.2	Introduce your group	:25	:00	Group interaction: zoom breakout or Discord, individual projects using Gimp app	BP
6.1	**Storage, ports**	**2:00**	**:00**	**Socratic lecture using online classroom: use any mobile device, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
6.1	Attendance	:05	:00	Spreadsheet	BP
6.1	Prior class review	:05	:00	Class discussion: PPT posted on LMS	BP
6.1	Hard drive	:40	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
6.1	Break	:10	:00		BP
6.1	Attendance	:05	:00	Spreadsheet	BP
6.1	SSD	:25	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
6.1	Computer ports	:20	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
6.1	Review	:10	:00	Class discussion	BP
6.2	**Presentation software 3, midterm review**	**2:00**	**:00**	**Software demonstration: use desktop or laptop, PowerPoint, OS, Gimp app, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
6.2	Attendance	:05	:00	Spreadsheet	BP
6.2	Prior class review	:05	:00	Class discussion	BP
6.2	Animation	:20	:00	Software demonstration: PowerPoint	BP

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
6.2	Slide Show	:20	:00	Software demonstration: PowerPoint	BP
6.2	Break	:10	:00		BP
6.2	Attendance	:05	:00	Spreadsheet	BP
6.2	Midterm review	:55	:00	Lecture: PPT posted on LMS	BP
7.1	Midterm class exam (online)	2:00	:00	Google Classroom using Google Forms, short essay format	BP
7.2	Midterm lab exam (online)	2:00	:00	Google Forms through Google Classroom. Use desktop or laptop	BP
8.1	Operating system/copyright (mCpath)	2:00	:00	In-class cooperative team m-learning (mCpath) using Google Search, YouTube. Auditor, presenter, reporter, researcher and peer evaluation due Saturday via Google Classroom in Google Form. Instructor feedback, peer feedback. In-class presentations	BP
8.1	Attendance	:05	:00	Spreadsheet	BP
8.1	mCpath mobile learning session	:55	:00	Group interaction: Zoom breakout or class Discord Server.	BP
8.1	Attendance	:05	:00	Spreadsheet	BP
8.1	mCpath presentations	:55	:00	Students in-class presentation per group. Allowed to redo and submit unlisted through YouTube. Reports for Auditor, Presenter, Reporter, Researcher due Saturday. Students give peer evaulation	BP

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
				for each member of their group	
8.2	Searching, vector graphics software 1	2:00	:00	Software demonstration: use desktop or laptop, Google Search, Inkscape app. PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
8.2	Attendance	:05	:00	Spreadsheet	BP
8.2	Primary, secondary, tertiary sources	:15	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
8.2	Evaluating websites	:20	:00	Software demonstration: Google Search	BP
8.2	Models of team collaboration	:15	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
8.2	Break	:10	:00		BP
8.2	Attendance	:05	:00	Spreadsheet	BP
8.2	Intro to vector graphics	:40	:00	Software demonstration: Inkscape app	BP
8.2	Review	:10	:00	Class discussion	BP
8.3	Review, reflection on midterm answers (optional)	2:00	:00	Review midterm questions & answers, individual discussion using Zoom breakout	BP
9.1	Information systems	2:00	:00	Socratic lecture using online classroom: use any mobile device, PPT posted on LMS & Website, class video posted unlisted, playlist link in LMS	BP
9.1	Attendance	:05	:00	Spreadsheet	BP
9.1	Reflextion of educational level reached in class	:05	:00	Reflection	BP

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9.1	Intro to SDLC	:05	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
9.1	Analysis phase	:40	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
9.1	Break	:10	:00		BP
9.1	Attendance	:05	:00	Spreadsheet	BP
9.1	Design phase	:15	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
9.1	Implementation phase	:25	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
9.1	Review	:10	:00	Class discussion	BP
9.2	**Word processing 1, vector graphics software 2**	**2:00**	**:00**	**Software demonstration: use desktop or laptop, Word, Inkscape app, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
9.2	Attendance	:05	:00	Spreadsheet	BP
9.2	Setting tab stops, tables	:45	:00	Software demonstration: Word for Windows	BP
9.2	Break	:10	:00		BP
9.2	Attendance	:05	:00	Spreadsheet	BP
9.2	Bezier curve & layers	:25	:00	Software demonstration: Inkscape app	BP
9.2	Drawing skylines using Bezier curve and layers	:30	:00		BP
10.1	**Information system-case study example**	**2:00**	**:00**	**Practice case study: individual and group feedback on how answers will be accessed**	**BP**

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		Theory*	Practice**		
10.1	Attendance	:05	:00	Spreadsheet	BP
10.1	Prior class review	:05	:00	Class discussion	BP
10.1	Case study practice: analysis, define problem	:55	:00	Team discussion: Individual feedback on answer, reflection on how to improve quality of answer	BP
10.1	Attendance	:05	:00	Spreadsheet	BP
10.1	Work on case study: analysis, plan to gather more information	:50	:00	Team discussion: Individual feedback on answer, reflection on how to improve quality of answer	BP
10.2	Word processing 2, vector graphics software 3	2:00	:00	Software demonstration: use desktop or laptop, Word, Inkscape app, PPT posted on LMS, class video posted unlisted, playlist link in LMS	BP
10.2	Attendance	:05	:00	Spreadsheet	BP
10.2	Mail Merge	:45	:00	Word for Windows	BP
10.2	Break	:10	:00		BP
10.2	Attendance	:05	:00	Spreadsheet	BP
10.2	Converting objects to paths, editing nodes, boolean selections	:55	:00	Inkscape app	BP
11.1	Computer security	2:00	:00	Socratic lecture using online classroom: use any mobile device, PPT posted on LMS, class video posted unlisted, playlist link in LMS, YouTube video supplement	BP
11.1	Attendance	:05	:00	Spreadsheet	BP
11.1	Hardware, software issues, users	:50	:00	Socratic lecture using online classroom: PPT posted on LMS	BP

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
11.1	Break	:10	:00		BP
11.1	Attendance	:05	:00	Spreadsheet	BP
11.1	Backup devices, cloud storage, protect system	:35	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
11.1	Password keepers	:15	:00	Socratic lecture using online classroom: PPT, YouTube video	BP
11.2	**Word processing 3, vector graphics software 4**	**2:00**	**:00**	**Software demonstration: use desktop or laptop, Word, Inkscape app, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
11.2	Attendance	:05	:00	Spreadsheet	BP
11.2	Styles, paragraphs	:40	:00	Software demonstration: Word for Windows	BP
11.2	Break	:10	:00		BP
11.2	Attendance	:05	:00	Spreadsheet	BP
11.2	Formating text, text to path, fit text to shape	:50	:00	Software demonstration: Inkscape app	BP
11.2	Review	:10	:00	Class discussion	BP
11.3	**Case study practice (optional)**	**2:00**	**:00**	**Team discussion: Individual feedback on answer, reflection on how to improve quality of answer**	**BP**
11.3	Attendance	:05	:00	Spreadsheet	BP
11.3	Work on case study: design phase	:55	:00	Team discussion: Individual feedback on answer, reflection on how to improve quality of answer	BP
11.3	Attendance	:05	:00	Spreadsheet	BP

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
11.3	Work on case study: installation	:55	:00	Team discussion: Individual feedback on answer, reflection on how to improve quality of answer	BP
12.1	**Computer networks**	**2:00**	**:00**	**Socratic lecture using online classroom: use any mobile device, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
12.1	Attendance	:05	:00	Spreadsheet	BP
12.1	Purpose, types of network, VPN	:45	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
12.1	Break	:10	:00		BP
12.1	Attendance	:05	:00	Spreadsheet	BP
12.1	Peer-to-peer, client/server, mediums, internet connection	:45	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
12.1	Review	:10	:00	Socratic lecture using online classroom: PPT posted on LMS	BP
12.2	**Word processing 4, case study practice**	**2:00**	**:00**	**Software demonstration & individual feedback: use desktop or laptop, Word, PPT posted on LMS, class video posted unlisted, playlist link in LMS**	**BP**
12.2	Attendance	:05	:00	Spreadsheet	BP
12.2	Layout, track changes, markup, editor, thesaurus, translate	:50	:00	Software demonstration: Word for Windows	BP
12.2	Break	:10	:00		BP
12.2	Attendance	:05	:00	Spreadsheet	BP

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Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
12.2	Case study practice: implementation phase, IP issues, network design	:50	:00	Team discussion: Individual feedback on answer, reflection on how to improve quality of answer	BP
13.1	Final lab exam (Online)	2:00	:00	Google Classroom using Google Forms: short essay format, must use desktop or laptop, open book, open computer	BP
13.2	Final class exam (Class time)	2:00	:00	Google Forms through Google Classroom: case study, answers written in long essay format. Students can work together but must submit work that is substantially orginal, use TurnitIn to check	BP
	Total hours	55:00			

2. Plan for Assessment of Expected Course-Level Learning Outcomes (CLOs)

2.1 Measurement and Evaluation of learning achievement

A. Formative Assessment

- In-class review of mobile learning survey results
- In-class reflection on in-class team cooperative m-learning session-mCpath (3)
- Comments on individual mCpath reports, peer grade and comments on team (2)
- In-class review, reflection on midterm exam results (1)
- In-class case study practice session (3)
- Comments on individual lab projects (3)

B. Summative Assessment

(1) Tool and weight for measurement and evaluation

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CLOs	Learning outcomes measurements								Weight (percent)
	Midterm class: short essay	Midterm lab: short essay	Final case: case study	Final lab: short essay	Inclass mLearning: individual	Inclass mLearning: group	Inclass mLearning: peer evaulation	Class/lab homework	
CLO1 Describe basic functions of common digital tools in everyday life, including computers, the internet and social platforms and recognize how digital tools influence society	7		15		3				25
CLO2 Improve digital information literacy by using desktops and mobile devices for in-class group work and self-learning	3	3		5	2	2			15
CLO3 Understand copyright,			5		2	3			10

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CLOs	Learning outcomes measurements								Weight (percent)
	Midterm class: short essay	Midterm lab: short essay	Final case: case study	Final lab: short essay	Inclass mLearning: individual	Inclass mLearning: group	Inclass mLearning: peer evaulation	Class/lab homework	
creative commons and other intellectual property right									
CLO4 Work cooperatively in a group with each member assigned a role and responsible for timely completion of tasks			5			5	5		15
CLO5 Show proficiency in use of operating system and basic software		7		20	3			5	35
Total	10	10	25	25	10	10	5	5	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

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

Not applicable to MUIC

3. Students' Appeal

Not applicable to MUIC

Section 6 Teaching Resources

1. Required Texts

    1)   Class handout will be provided via Google Classroom and class website (updated 2021, September 4)

2. Suggested Materials

    2)   Bah, T. (2011). *Guide to a vector drawing program* (4th ed.). Boston, MA, USA: Prentice Hall.

    3)   Bettany, A., & Halsey, M. (2017). *Windows virus and malware troubleshooting*. UK: Apress.

    4)   Halsey, M. (2016). *Windows 10 troubleshooting*. UK: Apress.

    5)   Kernigham, B. W. (2017). *Understanding the digital world: what you need to know about computers, the internet, privacy, and security.* Princeston, NJ, USA: Princeton University Press.

    6)   Knittel, B., & McFedries, P. (2018). *Windows 10 in depth.* (2nd ed.). USA: Que Publishing.

    7)   Kuhlman, G. (2019). The *Gimp bible.* Kuhlman Publishing.

    8)   Mueller, S. (2015). *Upgrading and repairing PCs* (22nd ed.). Indianapolis, IN, USA: Pearson Education.

    9)   Pogue, D. (2020). *Mac unlocked.* New York, NY, USA: Simon & Schuster.

    10)   Schmidt, C. A. (2020). *Complete A+ guide to IT hardware and software* (8th ed.). Hokoben, NJ, USA: Pearson Education.

    11)   Vermaat, M., Monk, E., Sebok, S., Freund, S., Cable, S., & Starks, J. (2019). *Shelly Cashman Series Microsoft Office 365 & Office 2019 introductory*. Singapore: Cengage Learning.

    12)   Wilson, K. (2020). *Exploring Microsoft Office.* Liverpool, UK: Elluminet Press.

3. Other Resources (if any)

    1)   Video of recorded class uploaded on Google Classroom

    2)   Links to keyboard shortcuts and search filters posted in Google Classroom

    3)   Web site icns141.com

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Section 7 Evaluation and Improvement of Course Implementation

1. **Strategy for Course Effectiveness Evaluation by Students**

    1) Student comments from peer report, mCpath (2)

    2) Formal end of the term student evaluation

    3) Response to student comments on TQF5

2. **Strategy for Teaching Evaluation**

    1) Student comments on peer report, mCpath (2)

        a. Review and consisder revisions during the term

    2) Formal end of the term student evaluation

        a. Review students' comments and make revisions between terms

    3) Review of videos and self-reflection on improving teaching

    4) Periodic item analysis of exams to help develop better questions

    5) When creating midterms, review of weighting in terms of questions asked per topic and also difficulty of question

    6) PA review mid year and end of school term

3. **Teaching Improvement**

    1) Update of handout during summer break

    2) Review and update of currency of content of presentations during term break

    3) Review of student evaluation and comment, making adjustments to the next TQF3

    4) Attending teaching workshop and training sessions arranged by OAA, MUIC IT and other as offered

    5) Periodic item analysis of exams, using results to update class test bank

4. **Verification of Standard of Learning Outcome for the Course**

    1) Pass the course with a minimum of 60 percent or a D grade

5. **Revision Process and Improvement Plan for Course Effectiveness**

    1) Update of handout during summer break

    2) Use lesson plan to help manage time

    3) Manage division sharing session on "Online exams and integrity"

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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) ICGN119	MU-GE LOs								
	MLO1	MLO2	MLO3	MLO4	MLO5	MLO6	MLO7	MLO8	MLO9
CLO1 Describe basic functions of common digital tools in everyday life, including computers, the internet and social platforms and recognize how digital tools influence society	1.1 1.2	2.2 2.3		4.1 4.3					
CLO2 Improve digital information literacy by using desktops and mobile devices for in-class group work and self-learning	1.2 1.3		3.1			6.3 6.4	7.1 7.2 7.3		9.1 9.2
CLO3 Understand copyright, creative commons and other intellectual property right	1.2 1.3	2.2		4.2		6.3	7.1		
CLO4 Work cooperatively in a group with each member assigned a role and responsible for timely completion of tasks	1.4		3.1			6.4	7.2	8.1 8.2	9.1 9.2
CLO5 Show proficiency in use of operating system and basic software			3.1		5.1 5.2				

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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
	2.3 Apply concept of process management to solve problems
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
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
	4.3 Implement innovation through process management approach

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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 Resort to multi-dimensional settings and tools to acquire knowledge and skills relevant to the problems or situation at hand
MLO6 Act autonomously within context of relationships to others, law, rules, codes, and values	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.
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

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

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

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Competences	LOs:	Sub LOs:
	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
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

Competences	LOs:	Sub LOs:
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