ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

វិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ

កម្មវិធីសិក្សាលម្អិត

សម្រាប់បណ្តុះបណ្តាលគ្រូបង្រៀនកម្រិតមធ្យមសិក្សា

ថ្នាក់បរិញ្ញាបត្រអប់រំ វិជ្ជាជីវៈគ្រូបង្រៀន (១២+៤)

ឯកទេស៖ គណិតវិទ្យា

មុខវិជ្ជា៖ ការប្រើ ICT សម្រាប់ការបង្រៀននិងរៀន I

ឆ្នាំទី១

តុលា ២០២២

បុព្វកថា

ដើម្បីរួមចំណែកក្នុងការអនុវត្តយុទ្ធសាស្ត្រចតុកោណដំណាក់កាលទី៤របស់រាជរដ្ឋាភិបាលដែលបានកំណត់យកការអភិវឌ្ឍធនធានមនុស្សជាអាទិភាពទីមួយ ក្រសួងអប់រំ យុវជន និងកីឡាបានកសាងផែនការយុទ្ធសាស្ត្រវិស័យអប់រំឆ្នាំ២០១៩-២០២៣ ក្នុងគោលបំណងអភិវឌ្ឍមូលធនមនុស្សដើម្បីប្រែក្លាយកម្ពុជាទៅជាប្រទេសមានចំណូលមធ្យមកម្រិតខ្ពស់ក្នុងឆ្នាំ២០៣០ និងជាប្រទេសអភិវឌ្ឍន៍នៅឆ្នាំ២០៥០។ ដើម្បីឆ្លើយតបនឹងចក្ខុវិស័យនេះ ក្រសួងអប់រំ យុវជន និងកីឡា បាននិងកំពុងយកចិត្តទុកដាក់យ៉ាងខ្លាំងក្នុងការលើកកម្ពស់គុណភាពអប់រំ ដើម្បីបង្កើនគុណភាពធនធានមនុស្សឱ្យស្របទៅនឹងសកលភាវូបនីយកម្មនៃការអប់រំនៅក្នុងតំបន់ និងលើសកលលោក តាមតម្រូវការទីផ្សារការងារក្នុងសង្គមពុទ្ធិនាសតវត្សរ៍ទី២១នេះ។ ទន្ទឹមគ្នានេះដែរ ក្រសួងអប់រំ យុវជន និងកីឡាបានកំណត់យកគ្រូបង្រៀនជាអាទិភាពទី១ក្នុងកំណែទម្រង់របស់ខ្លួនដែលមានចែងក្នុងមុំទី១ស្តីពី "ការពង្រឹងគុណភាពអប់រំ វិទ្យាសាស្ត្រ និងបច្ចេកវិទ្យា" ។

តាមស្មារតីនេះ ក្រសួងអប់រំ យុវជន និងកីឡាបានបង្កើនកម្រិតនៃការបណ្តុះបណ្តាលគ្រូបង្រៀនបឋមសិក្សា និងមធ្យមសិក្សាបឋមភូមិឱ្យដល់កម្រិតបរិញ្ញាបត្រ (អប់រំ) តាមរយៈការបង្កើតវិទ្យាស្ថានគរុកោសល្យចំនួន២ គឺវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ និងវិទ្យាស្ថានគរុកោសល្យបាត់ដំបង ក្នុងគោលបំណងបណ្តុះបណ្តាលគ្រូបង្រៀនប្រកបដោយគុណសម្បទាពេញលេញរួមមានវិជ្ជាសម្បទា បំណិនសម្បទា កាយសម្បទា និងចរិយាសម្បទា ស្របតាមស្តង់ដាអន្តរជាតិ។ កម្មវិធីសិក្សាលម្អិតនេះ ត្រូវបានអភិវឌ្ឍឡើងស្របតាមក្របខណ្ឌកម្មវិធីសិក្សារបស់វិទ្យាស្ថាន ដើម្បីធានានូវសង្គតិភាព និងគុណភាព ក្នុងការអនុវត្តកម្មវិធីបណ្តុះបណ្តាលគ្រូបង្រៀននេះឱ្យមានប្រសិទ្ធភាពខ្ពស់។

ក្រសួងអប់រំ យុវជន និងកីឡាជឿជាក់ថា កម្មវិធីសិក្សាលម្អិតនេះនឹងជាឯកសារសំខាន់ក្នុងការជួយគាំទ្រដល់ការអនុវត្តកម្មវិធីបណ្តុះបណ្តាលគ្រូបង្រៀនឱ្យមានគុណភាពខ្ពស់ប្រកបដោយចំណេះដឹង សមត្ថភាពជំនាញវិជ្ជាជីវៈ គុណធម៌ សីលធម៌ សុខភាពល្អ និងស្មារតីទទួលខុសត្រូវ ដើម្បីធានាបាននូវការអប់រំប្រកបដោយគុណភាពនិងប្រសិទ្ធភាព។ ក្រសួងអប់រំ យុវជន និងកីឡា សូមថ្លែងអំណរគុណដល់មន្ត្រីជំនាញ គណៈកម្មការ អនុគណៈកម្មការ ក្រុមការងារ ដៃគូអភិវឌ្ឍវិស័យអប់រំ និងអ្នកពាក់ព័ន្ធទាំងអស់ដែលបានយកចិត្តទុកដាក់ក្នុងការរៀបចំឯកសារនេះ។

ថ្ងៃ ខែ ឆ្នាំជូត ទោស័ក ព.ស.២៥៦៤

រាជធានីភ្នំពេញ ថ្ងៃទី ខែ ឆ្នាំ២០២០

រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា

អារម្ភកថា

កម្មវិធីសិក្សាលម្អិត **ការប្រើ** ICT **សម្រាប់ការបង្រៀននិងរៀន** សម្រាប់អប់រំគ្រូបង្រៀនកម្រិតមធ្យមសិក្សា ថ្នាក់បរិញ្ញាបត្រ (១២+៤) ឯកទេសគណិតវិទ្យាត្រូវបានរៀបចំឡើងដោយមន្ត្រីអប់រំរបស់ក្រសួងអប់រំ យុវជន និងកីឡា មកពីនាយកដ្ឋាននានាក្រោមឱវាទក្រសួង សាកលវិទ្យាល័យ វិទ្យាស្ថានជាតិអប់រំ រួមជាមួយដៃគូអភិវឌ្ឍដូចជាអង្គការ JICA/E-TEC អង្គការVVOB និងផ្សេងទៀត។

ខ្លឹមសារនៅក្នុងកម្មវិធីសិក្សាលម្អិតនេះរួមមានកម្មវិធីសិក្សាលម្អិតសម្រាប់ឆ្នាំសិក្សាទី១ ដែលមានទាំងចំណងជើងមេរៀន និងវិធីសាស្ត្របង្រៀនស្នើសម្រាប់អនុវត្តការបង្រៀននិងរៀនតាមសប្តាហ៍នីមួយៗ។ កម្មវិធីសិក្សានេះគឺជាឯកសារដ៏សំខាន់របស់វិទ្យាស្ថានគរុកោសល្យ ដែលសាស្ត្រាចារ្យឧទ្ទេសអាចយកទៅប្រើប្រាស់ក្នុងកម្មវិធីបណ្តុះបណ្តាលគ្រូបង្រៀនប្រកបដោយប្រសិទ្ធភាព និងទទួលបានលទ្ធផលល្អ។

ក្រុមការងារយើងខ្ញុំសូមថ្លែងអំណរគុណចំពោះថ្នាក់ដឹកនាំក្រសួងអប់រំ យុវជន និងកីឡា ដែលបានជួយឧបត្ថម្ភ គាំទ្រក្នុងការអភិវឌ្ឍកម្មវិធីសិក្សាដ៏មានតម្លៃនេះ។ យើងខ្ញុំទាំងអស់គ្នានឹងបន្តខិតខំកែលម្អកម្មវិធីសិក្សានេះ បន្ថែមទៀត ដើម្បីឱ្យការអប់រំគ្រូបង្រៀននៅវិទ្យាស្ថានគរុកោសល្យកាន់តែមានគុណភាពប្រសើរឡើង។

គណៈកម្មការមុខវិជ្ជា ICT

គណៈកម្មការរៀបចំ

គណៈកម្មការគ្រប់គ្រង

១. ឯ.ឧ. បណ្ឌិតសភាចារ្យ ហង់ ជួន ណារ៉ុន រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	ប្រធាន
២. ឯ.ឧ. បណ្ឌិតសភាចារ្យ ណាត ប៊ុនធឿន រដ្ឋលេខាធិការក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	អនុប្រធាន
៣. ឯកឧត្តម ហ៊ីង ស៊ីណេ អនុរដ្ឋលេខាធិការក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	សមាជិក
៤. ឯកឧត្តម លាង សេងហាក់ អនុរដ្ឋលេខាធិការក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	សមាជិក
៥. ឯកឧត្តម ពុត សាមិត្ត អគ្គនាយកអប់រំ	សមាជិក

គណៈកម្មការបច្ចេកទេស

១. ឯ.ឧ. បណ្ឌិតសភាចារ្យ ណាត ប៊ុនធឿន រដ្ឋលេខាធិការក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	ប្រធាន
២. ឯកឧត្តម ហ៊ីង ស៊ីណេ អនុរដ្ឋលេខាធិការក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	អនុប្រធាន
៣. ឯកឧត្តម លាង សេងហាក់ អនុរដ្ឋលេខាធិការក្រសួងអប់រំ យុវជន និងកីឬ្ឬ	អនុប្រធាន
៤. ឯកឧត្តម ពុត សាមិត្ត អគ្គនាយកអប់រំ	អនុប្រធាន
៥. ឯកឧត្តម អ៊ុក សិទ្ធិជាតិ អគ្គនាយកកីឬ្ឬ	សមាជិក
៦. ឯកឧត្តម ជេត ជាលី សាកលវិទ្យាធិការនៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ	សមាជិក
៧.ឯកឧត្តមបណ្ឌិត ឌី សមស៊ីដេត អគ្គនាយករងអប់រំ	សមាជិក
៨.ឯកឧត្តមបណ្ឌិត សិត សេង នាយកវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
៩.ឯកឧត្តម ប៊ិន ឆុំ នាយកវិទ្យាស្ថានគរុកោសល្យបាត់ដំបង	សមាជិក
១០. លោកបណ្ឌិត ម៉ុក សារ៉ុម អគ្គនាយករងអប់រំ	សមាជិក
១១. លោកជំទាវបណ្ឌិត ឃួន វិច្ជិកា អគ្គនាយករងនៃអគ្គនាយកដ្ឋានរដ្ឋបាលនិងហិរញ្ញវត្ថុ	សមាជិក
១២. លោកបណ្ឌិត សំអេ អង្ការតន៍ អគ្គនាយករងគប.ផក	សមាជិក
១៣. លោក ង៉ោ ប៉េងឡុង ប្រធាននាយកដ្ឋានបវ	សមាជិកប្រចាំការ
១៤. លោកបណ្ឌិត សុខ សូត្រ ព្រឹទ្ធបុរសនៃសាលវិទ្យាល័យភូមិន្ទភ្នំពេញ	សមាជិក
១៥. លោក តាកាហាស៊ី កូជិ ប្រធានគម្រោងE-TEC	សមាជិក

គណៈកម្មការមុខវិជ្ជាឯកទេស

១. លោកសាស្ត្រាចារ្យ វ៉ាគីអូ អូយ៉ាណាហ្គិ សាស្ត្រាចារ្យនៃសាកលវិទ្យាល័យអប់រំណារ៉ា	ប្រធាន
២. លោកសាស្ត្រាចារ្យ គីតាហ្គារ៉ា តាកិហ្ស៊ី សាស្ត្រាចារ្យនៃសាកលវិទ្យាល័យអប់រំណារ៉ា	អនុប្រធាន
៣. លោក ជ សុភា ប្រធានដេប៉ាតឺម៉ង់ICTនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
៤. លោក ជួង សុវណ្ណតារា អនុប្រធានដេប៉ាតឺម៉ង់ICTនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
៥. លោក កែវ ទូច អនុប្រធានដេប៉ាតឺម៉ង់ICTនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
៦. លោក ម៉ែង សុខជា គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក

៧.លោក ហ៊ីម ធីយ៉ា គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
៨. លោក ឌី ច័ន្ទពិសិដ្ឋ គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
៩. លោក ម៉ក់ រដ្ឋា គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
១០. លោក ទូច សារ៉ាម គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
១១. លោក ស៊ិន សុវណ្ណា គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
១២. លោក សេង ណុល គ្រូឧទ្ទេសនៃវិទ្យាស្ថានគរុកោសល្យរាជធានីភ្នំពេញ	សមាជិក
១៣. លោក ហ៊ុន រ៉ារី ព្រឹទ្ធបុរសរងនៃវិទ្យាស្ថានគរុកោសល្យបាត់ដំបង	សមាជិក
១៤. លោក ណុប តារាវង្ស អនុប្រធានដេប៉ាតឺម៉ង់ICTនៃវិទ្យាស្ថានគរុកោសល្យបាត់ដំបង	សមាជិក
១៥. លោក ឌី ចាន់ឌឿន អនុប្រធានដេប៉ាតឺម៉ង់ICTនៃវិទ្យាស្ថានគរុកោសល្យបាត់ដំបង	សមាជិក

មាតិកា

បុព្វកថា	1
អារម្ភកថា	2
គណៈកម្មការរៀបចំ	3
មាតិកា	5
Use of ICT in Teaching and Learning I	1
I. General information	1
II. Module Description	1
III. Course Learning Outcome	1
IV. Methodology	1
V. Assessment (assignment, assessment criteria, hand-in date)	1
VI. Other Course Specific Information	2
VII. Reading List and Resources	2
VIII. Lesson Schedule in 2018-2019	3
1. Semester 1:1 credit (2 hours × 15 weeks)	5
Week 1: Knowledge on basic components of computer	5
Week 2: Operating system and file management	5
Week 3: English and Khmer typing	6
Week 4: English and Khmer typing practice	6
Week 5: The Use of the Internet and Email	6
Week6: Media and Information Literacy	7
Week7: News and Information	7
Week8: Digital Literacy	8
Week9: Personal Ethics and Responsibility in Media	9
Week10: Content creations	9
Week 11: Using Google Drive to Store and Share Resources	10
Week 12: Google Docs: Create or import files	10
Week 13: Google Docs: Edit and format a document	10
Week 14: Google Docs: Share, Collaborate, Print and Download Documents	11
Week 15: Google Docs: Access your calendar, notes, and tasks	11
2. Semester 2:1 credit (2 hours × 15 weeks)	12
Week 1: Google Sheets: Create or import files and formatting spreadsheet contents	12
Week 2: Google Sheets: Using spreadsheet formulas for teaching and learning	12
Week 3: Google Sheets: Share, Collaborate, Print and Download files	13
Week 4: Google Slides: Create or import files and Add content to your presentation	13
Week 5: Google Slides: Share, collaborate, Print and download files	14
Week 6: OpenOffice.org Writer: Understanding the Menu bar, making basic documents, Page formatting, and Bullet and Number list	14
Week 7: Make document with table and Change Page number to Khmer	15
Week 8: Paragraph, tab stop, and special character	15

Week 9: Page column and Printing 16
Week 10: Add different page numbers or number formats to different sections 16
Week 11: Using bookmarks and Hyperlink 16
Week 12: Working with Long Documents 17
Week 13: Add footnotes, endnotes, and citations to document 17
Week 14: Writing formula in OpenOffice.org writer 18
Week 15: Protecting text section in OpenOffice.org writer 18

Use of ICT in Teaching and Learning I

I. General information

Category	Subject Knowledge
Lecturer	Name: ********** Email: **********
Room	Room *****, Building *****
Student Teachers	1st year of Lower Secondary Education Programme
Semester	Semester 1: 15 classes (2 hours ×15 weeks) Semester 2: 15 classes (2 hours ×15 weeks)
Date	November 2018 – August 2019
Credits	2(0-2)

II. Module Description

This course provides an overview of the use of Information and Communication Technology (ICT) in teaching and focuses on a knowledge and understanding of ICT, learning how to use ICT to prepare lesson plans, making teaching and learning materials and working together, using the internet without violating copyrights. Student teachers will acquire knowledge and skills in basics of computer and internet literacy. Student teachers will possess competencies in using of ICT for communication, collaboration, collection and analysis of data for further study and research effectively. Also, Student teachers will understand the basic idea to teach their students how to use ICT.

III. Course Learning Outcome

After the study of this module, student teachers will be able:

- CLO 1: Identify ethics, technology, resources, technology, technology tools, student welfare and safety online used in teaching and learning (PLO2)
- CLO2: Use data through information and communication technology to support effective teaching and learning and professional ethics (PLO12)
- CLO3: Use information and communication technology tools to support teaching and learning in response to education in the digital age (PLO11)

IV. Methodology

- Lecture
- Practice
- Group Discussion
- Individual Presentation

V. Assessment (assignment, assessment criteria, hand-in date)

Preservice students will be evaluated comprehensively based on class attendance, contribution in class, report and performance in accordance with the assessment criteria.

No.	Assessment	Assessment criteria
1	Class attendance (10%)	More than 80 % of class attendance in each semester is prerequisite to submit assignments or to take examinations.
2	Contribution (20%)	Points to consider the class contribution: - To participate actively in group discussions. - To express your own opinions in class.

		- To hear earnestly the other students opinions in class.
3	Report/essay (30%)	**1st semester:** Theme: "Using Google Sheets, please create a student list with total score, average, rank, mention, and number of students by counting number of male and female in any class of a practical school. And then, send the link of the workbook to your lecturer." - Date of hand-in by March 30th - The essay will be evaluated based on the Criteria for Evaluation Written Work in TEC. **2nd semester:** Theme: "Please create a lesson plan for science subject by using OpenOffice.org writer, Adobe Photoshop, and store the result in Google drive after that share to lecturer with a presentation slide." - Date of hand-in by August 30th The essay will be evaluated based on the Criteria for Evaluation Written Work in TEC.
4	Performance (40%)	The assessment will be made based on the criteria for evaluation in each midterm and final of each semester: - Semester 1: The midterm will occur during the 7th week of the 1st semester and the final examinations for the 1st semester will be made during the 15th week of the 1st semester. - Semester 2: The midterm will occur during the 7th week of the 2nd semester and the final examinations for the 2nd semester will be made during the 15th week of the 2nd semester.

VI. Other Course Specific Information

None

VII. Reading List and Resources

- The 3rd Edition of Computer Education and Learning Booklet by the Ministry of Education, Youth and Sports
- Intel Teach start reading course, 2009 Edition
- Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport
- https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Calc_Guide/ Page_breaks
- https://support.office.com/en-us/article/Add-different-page-numbers-or-number-formats-to-different-sections-BB4DA2BD-1597-4B0C-9E91-620615ED8C05
- https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Writer_Guide/ Linking
- https://www.webucator.com/tutorial/advanced-microsoft-word/random-useful-items.cfm
- https://www.papercheck.com/open-office/create-a-table-of-contents-openoffice-3-2-1/
- https://www.webucator.com/tutorial/advanced-microsoft-word/working-with-long-documents.cfm
- https://wiki.openoffice.org/wiki/Documentation/OOoAuthors_User_Manual/Writer_Guide/Using_footnotes_and_endnotes
- https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Writer_Guide/Adding_a_reference
- https://wiki.openoffice.org/wiki/Math
- https://wiki.openoffice.org/wiki/Documentation/FAQ/Writer/FormattingText/How_do_I_protect_(lock)_a_section_of_text_so_that_the_content_cannot_be_changed%3F
- http://www.activitydata.org/How_to_Pivot_data_in_Open_Office_Spreads.html
- https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Calc Guide/Validating_cell_contents
- https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/ Calc_Guide/Autoformat_and_themes
- http://www.howtousevlookup.com/vlookup-in-openoffice/
- https://dottech.org/181240/how-to-use-hlookup-functions-in-openoffice-spreadsheets-tip/

- https://www.suse.com/c/brainstorm-cool-tip-protecting-spreadsheet-cells-openofficeorg-20-calc/https://www.google.com.kh/
- https://www.webucator.com/tutorial/advanced-microsoft-word/index.cfm
- https://www.computer-pdf.com/tutorials-photoshop-cs6
- The Ministry of Education, Youth and Sport (MoEYS) published in 2016, grade 12 of ICT for textbooks and communication
- The Grade 4 to Grade 6 Information and Communication Technology Details Study, published in 2018
- Other related resources:
    - Textbook Ultimate computer repair guide 2010
    - www.khmeros.info; www.openoffice.org; www.comptechdoc.org; www.techopedia.com/software; www.mybroadband.co.za; http://krou.moeys.gov.kh; https://gsuite.google.com; www.eliademy.com; canvas.instructure.com; e-learning; canvas.instructure.com; http://classroom.google.com; http://cisco.netacad.net

VIII. Lesson Schedule in 2018-2019

1) Semester 1: Computer Basic, Internet, and media Literacy:1 credit (2 hours × 15 weeks)

Week No.	Date	Topic
1-1	November	Knowledge on basic components of computer
1-2		Practice
2-1	November	Operating system and file management
2-2		Practice
3-1	December	English and Khmer typing
3-2		Practice
4-1	December	English and Khmer typing practice
4-2		Practice
5-1	December	The Use of the Internet and email
5-2		Practice
6-1	January	Media and Information Literacy
6-2		Practice
7-1	January	News and Information
7-2		Practice
8-1	January	Digital Literacy
8-2		Practice
9-1	January	Personal Ethics and Responsibility in Media
9-2		Practice
10-1	February	Content creations
10-2		Practice
11-1	February	Using Google Drive for Storing and Sharing Resources
11-2		Practice
12-1	February	**Google Docs:** Create or import files
12-2		Practice
13-1	February	Edit and format a document
13-2		Practice
14-1	March	Share, Collaborate, Print and download Google Docs file
14-2		Practice
15-1	March	Access your calendar, notes, and tasks
15-2		Practice

2) Semester 2:OpenOffice.org and Image Editing:1 credit (2 hours × 15 class hours)

Week No.	Date	Topic
1-1	April	**Google Sheets:**

		Create or import files and formatting spreadsheet contents
1-2		Practice
2-1	April	Using spreadsheet formulas for teaching and learning
2-2		Practice
3-1	May	Share, Collaborate, Print and download Google Sheets file
3-2		Practice
4-1	May	**Google Slides:** Create or import files and add content to your presentation
4-2		Practice
5-1	May	Share, Collaborate, Print and download Google Slides file
5-2		Practice
6-1	June	**OpenOffice Writer** Understand OpenOffice.Org Writer Interface and Page Setup
6-2		Practice
7-1	June	Make document with table and Change Page number to Khmer
7-2		Practice
8-1	June	Paragraph, tab stop, and special character
8-2		Practice
9-1	June	Page column and Printing
9-2		Practice
10-1	June	Add different page numbers or number formats to different sections
10-2		Practice
11-1	July	Using bookmarks and Hyperlink
11-2		Practice
12-1	July	Working with Long Documents
12-2		Practice
13-1	July	Add footnotes, endnotes, and citations to document
13-2		Practise
14-1	July	Writing formula in OpenOffice.org writer
14-2		Practise
15-1	August	Protecting text section in OpenOffice.org writer
15-2		Practise

1. Semester 1:1 credit (2 hours × 15 weeks)

Week 1: Knowledge on basic components of computer

1	**Date/time**	
2	**Venue**	
3	**Contents**	In designing and carrying out effective classes, it is required that teachers prepare lessons and develop teaching materials using computers. This time as its first time, you learn the following. ・Clarify what you will learn and think through this course. ・Know about computer hardware ・Functions of Monitor, System Unit, Keyboard, and Mouse ・Computer components and its' functions(CPU, RAM, Hard Disk, VGA,…) ・Other computer devices (Printer, Scanner, projector,…) ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to understand basic of computer hardware, components in System Unit and other devices needed to add on the a personal computer
5	**Main Questions**	How many basic computer components that let a computer work?
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition ・http://cisco.netacad.net

Week 2: Operating system and file management

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you will get to know some kinds of Operating System (Window, Linux, …) and understand how to manage file. You are requested to explain the points to be noted at that time ・Clarify the differences between Window operating system and Linux ・Understand about smart phone operating system (IOS, Android, …) ・How to use Window operating system ・How to Login to Window Operating System ・Understand desktop on Window ・Understand Window Explorer or File Explorer (Create folder, Change Folder or file name, and Delete folder or file) ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・explain about operating system on computer and smart phone. ・use Window operating system ・Create folder and find file correctly
5	**Main Questions**	・What is a computer operating system? ・Please, tell some Operating system that you have known. ・What is the benefit when you keep your file in a folder correctly?
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport

		・Intel Teach start reading course, 2009 Edition

Week 3: English and Khmer typing

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use keyboard for typing English and Khmer language. You are requested to explain the points to be noted at that time ・How to use Keyboard and Mouse ・Type word and phrase in English and Khmer languages ・Practice
	Learning Outcomes	After completing work for this class, you will be able: ・explain how to use a keyboard and mouse ・type letter correctly both in English and Khmer
5	**Main Questions**	・Why must you use your all ten fingers to type word on keyboard? ・What are the prerequisites to type word faster?
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition

Week 4: English and Khmer typing practice

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use keyboard for typing English and Khmer language. You are requested to explain the points to be noted at that time ・Practice type word and phrase in English and Khmer languages
	Learning Outcomes	After completing work for this class, you will be able: ・type letter correctly both in English and Khmer
5	**Main Questions**	・Please type word given by lecturer.
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition

Week 5: The Use of the Internet and Email

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use Internet. you will also be able to: ・know the history of Internet ・benefit of Internet ・services on Internet ・get to know some web browser ・search information on Internet ・understand Media Literacy ・know form of media

		・understand content and information form ・The literacy skills of the media ・Building the literacy skills of media for users of news content ・Building media literacy skills for content creators ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・search information on the Internet by yourself ・know how important Internet use is ・use information searched form Internet effectively ・show your own idea on the Internet correctly
5	**Main Questions**	・What is an Internet? ・What are the pros and cons of Internet for yourself and society? ・How do we know the information on Internet is correct or not?
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition ・https://www.library.georgetown.edu/tutorials/research-guides/evaluating-internet-content

Week6: Media and Information Literacy

1	**Date/time**	
2	**Venue**	
3	**Contents**	This week you will learn about Media and Information Literacy. You will also be able to understand about: ● Media and Information Literacy ● Media ● Media form ● Content of information ● Form of information ● Media literacy skills ● Develop media literacy skills for users ● Develop media literacy skills for content creator
4	**Learning Outcomes**	After completing work for this class, you will be able to: ● Understand what is media and information literacy ● Develop media literacy skills ● Understand Media form ● Understand Content of information ● Defining Form of information
5	**Main Questions**	● What is media and information literacy? ● What is media ? ● Why is media and information literacy important to you? ● What are the 5 elements of media and information literacy? Briefly describe.
6	**Reading List and Resources**	https://elearning.moeys.gov.kh/mod/scorm/player.php https://www.unesco.org/en/communication-information/media-information-literacy/about https://www.techopedia.com/definition/1098/media https://www.niallmcnulty.com/2021/06/why-is-media-literacy-important/

Week7: News and Information

1	**Date/time**	

2	**Venue**	
3	**Contents**	This week you will learn about News and Information. You will also be able to understand about: ● News ● Sources News ● Information ● The difference between news and information ● Questions that information should answer and journalists' ethical standards ● Importance of access to information and ways to obtain good and sufficient information ● Distinguish between misinformation and disinformation and the evaluation of this information.
4	**Learning Outcomes**	After completing work for this class, you will be able to: ● Understand what information, disinformation, and fake are: their development, spread and potential impact. ● Understand that everyone is responsible for fighting disinformation, debunking it, and stopping their spread. ● Experiencing the role of news editor. ● Defining factors that go into news judgement. ● Exploring the constructed nature of news media ● Becoming aware of the way subjective choices influence the news that gets reported; analysing, reflecting, discussing, expressing an opinion; analysing different. ● Knowing how to check information for truthfulness and accuracy, knowing how to identify disinformation.
5	**Main Questions**	● What is information ? ● What is news? ● What is the difference between news and information ? ● What is misinformation, disinformation and malinformation? ● Learning to evaluate information (Disinformation and Misinformation)
6	**Reading List and Resources**	MIL_Course_Outline_for_teacher_training_V05_inputs_2021_05_21 https://elearning.moeys.gov.kh/mod/scorm/player.php https://youtu.be/3PQLttNq2BI https://www.youtube.com/watch?v=XJcsgVB9zxM&t=120s https://www.youtube.com/watch?v=VEMfc1-t7ds&t=1s

Week8: Digital Literacy

1	**Date/time**	
2	**Venue**	
3	**Contents**	This week student will learning new lesson Digital Literacy. The students will be able to understanding new skills such as : ● The definition of Digital literacy. ● The advantages of Digital literacy. ● Understanding the Security and privacy on the internet.
4	**Learning Outcomes**	After completing this lesson students will be able to: ● Understand clearly the definition of digital literacy. The students use their smart phone, or computer to open new website or mobile apps and find something on the internet. ● understand the advantages of the digital literacy. Digital literacy skills allow you to find, use & create info online in a productive & useful way. Having an understanding about digital literacy means you're able to use technology safely and it helps you avoid its dangers. ● understand the security and privacy on the internet. Students can project their privacy , and security from internet when they use internet and social media . students will understand the government law security and system security (social media) that user can make their own security from system.

5	**Main Questions**	• What is the digital literacy? • What are the advantage of digital literacy? • What is internet and email? • What are the security and privacy?
6	**Reading List and Resources**	https://www.teachthought.com/literacy/definition-digital-literacy/ https://bowvalleycollege.libguides.com/digital-literacy/safety https://iopn.library.illinois.edu/pressbooks/demystifyingtechnology/back-matter/security-and-privacy/

Week9: Personal Ethics and Responsibility in Media

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn about personal Ethics and responsibility in media. You will learn about: • Introduction to Ethics and Responsibility • Ethics in expression and responsible information sharing • The rights to use the internet in legal context • Impact of technological tools overuse
4	**Learning Outcomes**	After completing work for this class, you will be able to: • Defining accurate information and right of expression on internet and social media • explain responsibility on the use of technology and social media. • Being able to analyze reliable source and information before sharing
5	**Main Questions**	• What is ethics in expression? • Why do you need to respond to information sharing? • Why do you need to know the rights to use the internet in a legal context? • What are the points to consider before you express an opinion and share information on the Internet? • What happens when you overuse technological tools?
6	**Reading List and Resources**	• https://youtu.be/dzO3UGharmg • អក្ខរកម្មប្រព័ន្ធផ្សព្វផ្សាយ និងព័ត៌មាន: មេរៀនទី៥៖ ក្រមសីលធម៌បុគ្គល និងទំនួលខុសត្រូវផ្ទាល់ខ្លួន នៅក្នុងប្រព័ន្ធផ្សព្វផ្សាយ (moeys.gov.kh) • https://elearning.moeys.gov.kh

Week10: Content creations

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn about content creations. You will learn about: • Choosing article to write for publishing • Main points for content creation • Key points for an interview planning • Content creation based on the reverse pyramid
4	**Learning Outcomes**	After completing work for this class, you will be able to: • Observing the purpose and meaning of article • Being able to compose a well-informed article which covers 5WH questions
5	**Main Questions**	• Why do you need to choose an article to write for publishing? • What are the main points for an accurate content creation? • What are the key points for an interview planning? • What is content creation based on the reverse pyramid?
6	**Reading List and Resources**	• https://youtu.be/LaESYVJkSsE • អក្ខរកម្មប្រព័ន្ធផ្សព្វផ្សាយ និងព័ត៌មាន: មេរៀនទី៦៖ ការសរសេរអត្ថបទព័ត៌មាន (moeys.gov.kh)

		● https://elearning.moeys.gov.kh

Week 11: Using Google Drive to Store and Share Resources

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use Google Drive to store and share resources. You will also be able to: ・Use Google Drive with your Google Account ・Organize your Drive by creating new folders and upload and store files or folders in your Drive ・Set your Drive as offline ・Share files or folders and set access levels for visitors.
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Describe how to start working with Google Drive. ・Identify what Google Drive is ・Demonstrate how to create folders and upload files or folders in Google Drive, access your files offline in Google Drive, and share files or folders and set access levels for visitors.
5	**Main Questions**	・How to get start with Google Drive? ・How to create folders in Google Drive? ・How to share files or folders and set access levels and visibility?
6	**Reading List and Resources**	・How to use Google Drive - Android - Google Drive Help ・https://support.google.com/a/users/answer/9310349?hl=en&ref_topic=9296420# ・https://youtu.be/gdrxAoqfvbA ・Cloud Storage for Work and Home - Google Drive

Week 12: Google Docs: Create or import files

1	**Date/time**	
2	**Venue**	
3	**Contents**	Throughout the lesson, you will understand what Google Docs is and know how to create or import files as well. You will also be able to: ● Sign in/Login Gmail account ● Create a new file ● Import and convert existing files
4	**Learning Outcomes**	After completing this lesson, you will be able to: ● Describe how to start working with Google Docs. ● Identify what Google Docs is ● Demonstrate how to import and convert existing files from different word processing such as Microsoft Word or OpenOffice.org Writer
5	**Main Questions**	● How do you start with Google docs? ● How to create a new file on Google docs? ● How to Import and convert existing files?
6	**Reading List and Resources**	https://support.google.com/mail/answer/8494?hl=en&ref_topic=7065107 https://support.google.com/mail/answer/56256?hl=en&ref_topic=7065107 https://support.google.com/a/users/answer/9300503?hl=en

Week 13: Google Docs: Edit and format a document

1	**Date/time**	
2	**Venue**	

3	**Contents**	With this lesson, you will learn how to edit a document with Google Docs in which you go through several parts such as: ● Add and edit text ● Customize your document ● Add pictures, links, tables, and more ● Create page columns
4	**Learning Outcomes**	After completing this lesson, you will learn how to edit a document, change how it looks, and work in it much like you did in your old program. Google Docs automatically saves every change you make. In this lesson, you go through several parts such as: ● Add and edit text ● Customize your document ● Add pictures, links, tables, and more ● Create page columns
5	**Main Questions**	● How to add and edit text in google docs? ● Please describe how you can customize your document.
6	**Reading List and Resources**	https://support.google.com/a/users/answer/9305685

Week 14: Google Docs: Share, Collaborate, Print and Download Documents

1	**Date/time**	
2	**Venue**	
3	**Contents**	In this lesson, you will learn how to share and collaborate on files with Google Docs in which you go through several parts such as: ● Share documents ● Unshare documents ● Add comments and replies ● Suggest edits ● Print your document ● Download versions in other formats
4	**Learning Outcomes**	You will learn how to share your documents with your team or people outside your company. People can make changes at the same time, and you can see their changes as they happen. After completing this lesson you will be able: ● Demonstrate how to share/unshare documents. ● Use comments and replies to collaborate in a document. ● Use Suggesting mode without editing directly in the document ● Know how to print your document ● Know how to download versions in other formats.
5	**Main Questions**	● How can you share and unshare your documents with someone? ● How can you collaborate on a document with someone? ● Please tell me how to make a copy or download document in another format
6	**Reading List and Resources**	https://support.google.com/a/users/answer/9305987?hl=en&ref_topic=9296546

Week 15: Google Docs: Access your calendar, notes, and tasks

1	**Date/time**	
2	**Venue**	
3	**Contents**	In this lesson, you will learn how to see your schedule, reply to invitations, and keep track of your to-do lists without leaving your current app with Google Docs in which you go through several parts such as: ● Open your Google Calendar and events ● Open notes in Google Keep ● Open your to-do lists in Google Tasks

		• Get add-ons
4	**Learning Outcomes**	After completing this lesson, you will be able to: • Use Google Calendar, Google Keep, To-Do Lists and Google Tasks without leaving Google Docs. • Demonstrate how to get add-ons.
5	**Main Questions**	• Please tell how open your google calendar, event and notes in google keep. • Please tell how to get add-ons.
6	**Reading List and Resources**	https://support.google.com/a/users/answer/9259948?hl=en&ref_topic=9296546

2. Semester 2:1 credit (2 hours × 15 weeks)

Week 1: Google Sheets: Create or import files and formatting spreadsheet contents

1	**Date/time**	
2	**Venue**	
3	**Contents**	Throughout the lesson, you will understand what Google Sheets is and know how to create or import files as well. You will learn to: • Create a new file • Import and convert existing files • Enter and edit your data • Customize your spreadsheet • Work with rows, columns, and cells • Work with multiple sheets • Conditional Formatting
4	**Learning Outcomes**	After completing this lesson, you will be able to: • Identify what Google Sheets is • Describe how to start working with Google Sheets. • Demonstrate how to import and convert existing files from different spreadsheet such as Microsoft Excel or OpenOffice.org Calc • Describe how to add content and edit your data • Demonstrate how to customize your spreadsheet • Understand how to work with multiple sheets • Understand how to use Conditional Formatting
5	**Main Questions**	• How do you start, create a new file, import and convert existing file in Google Sheets? • Please tell me how to work with rows, columns, cells and multiple sheets. • Please tell how to use Conditional Formatting.
6	**Reading List and Resources**	https://support.google.com/a/users/answer/9300311?ref_topic=9296423 https://support.google.com/a/users/answer/9310181?hl=en&ref_topic=9296423 https://support.google.com/docs/answer/78413

Week 2: Google Sheets: Using spreadsheet formulas for teaching and learning

1	**Date/time**	
2	**Venue**	
3	**Contents**	You will learn how to add content to your spreadsheet. In this lesson, you will learn to: • Range Selection • Formulas & functions • Average, Minimum, Maximum, Count, Count numbers
4	**Learning Outcomes**	After completing this lesson, you will be able to: • Know how to select a range of data • Understand how to use formulas and functions in Google Sheets. • Use of Average, Minimum, Maximum, Count and Count numbers formulas.

5	**Main Questions**	• Please tell how to select a range of data • Please tell how to use Average, Minimum, Maximum, Count and Count numbers formulas.
6	**Reading List and Resources**	https://support.google.com/docs/answer/46977?hl%3Den%26ref_topic%3D1361471 https://support.google.com/docs/answer/66032?hl=en&ref_topic=1361471 https://support.google.com/docs/table/25273

Week 3: Google Sheets: Share, Collaborate, Print and Download files

1	**Date/time**	
2	**Venue**	
3	**Contents**	You will learn how to share and collaborate on files. After completing this lesson, you will be able to: • Share Google Sheets files in Drive, • Unshare Google Sheets files in Drive • Add comments and replies in Drive • Suggest edits in Google Sheets • Chat with people directly in Google Sheets • Protect Sheet • Print your file • Download versions in other formats
4	**Learning Outcomes**	After completing this lesson, you will be able to: • Demonstrate how to share/unshare Google Sheets documents in Drive • Use comments and replies to collaborate in Google Sheets • Use Suggesting mode without editing directly in the document • Demonstrate how to protect sheet in Google Sheets • Know how to print your document • Know how to download versions in other formats
5	**Main Questions**	• Please tell how to share, unshare Google Sheets documents. • Please tell me how to collaborate in Google Sheets. • Please tell me how to protect your sheet. • Please tell how to print and download documents in other formats.
6	**Reading List and Resources**	https://support.google.com/a/users/answer/9305987?hl=en&ref_topic=9296423 https://support.google.com/a/users/answer/9308980?hl=en

Week 4: Google Slides: Create or import files and Add content to your presentation

1	**Date/time**	
2	**Venue**	
3	**Contents**	You will learn how to Create or import files and Add content to your presentation. In this lesson, you will learn to: • Create a new file • Import and convert existing files • Choose a theme and layout • Add and edit content • Customize your slides • Create and arrange slides
4	**Learning Outcomes**	After completing this lesson, you will be able to: • Know how to create a new file • Understand how to choose a theme and layout • Understand how to customize your slides • Understand how to create and arrange slides
5	**Main Questions**	• Please tell me how to create, import and convert existing files. • Please tell me how to add content to your presentation.

6	**Reading List and Resources**	https://support.google.com/a/users/answer/9300311?ref_topic=9296555 https://support.google.com/a/users/answer/9310270?hl=en&ref_topic=9296555

Week 5: Google Slides: Share, collaborate, Print and download files

1	**Date/time**	
2	**Venue**	
3	**Contents**	You will learn how to Share, collaborate, Print and download files, you will able to: ● Share/Unshare presentations ● Add comments and replies ● Print a document ● Download versions in other formats ● Make a copy ● Email a copy as an attachment
4	**Learning Outcomes**	After completing this lesson, you will be able to: ● Demonstrate how to share/unshare Google Sheets documents in Drive ● Use comments and replies to collaborate in Google Sheets ● Use Suggesting mode without editing directly in the document ● Know how to print your document ● Know how to download versions in other formats ● Know how to make a copy in Docs ● Demonstrate how to Email a copy as an attachment
5	**Main Questions**	● How do you create a new file in Google slide? ● How do you import and convert existing files?
6	**Reading List and Resources**	https://support.google.com/a/users/answer/9305987?hl=en&ref_topic=9296555 https://support.google.com/a/users/answer/9306091?hl=en&ref_topic=9296555

Week 6: OpenOffice.org Writer: Understanding the Menu bar, making basic documents, Page formatting, and Bullet and Number list

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use word processing, understand the user interface, use format page and how to insert bullet and numbering. you will also be able to: ・Understand benefit of using word processing. ・Understand title bar, menu bar, and tools bar. ・Know how to show and hide each tools bar ・Know how to use standard bar for text formatting ・Set page formatting ・Setup Margin ・Page orientation ・Header and Footer ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・explain the benefit of using word processing ・know how to use Toolbar, Menu bar of word processing ・use word processing without any payment ・setup paper size, margin, page orientation, page header and footer ・Understand how to set Bullet and Numbering to text list. ・Insert picture into document.
5	**Main Questions**	・What is the difference between Menu bar and Tool bar? ・What is the function of Title bar?

		・Why must we use word processing? ・Please tell how to setup page orientation to Landscape and Portrait? ・Please put header and footer on page? ・Please tell how to insert bullet in document. ・Please tell how to insert image into a document.
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition

Week 7: Make document with table and Change Page number to Khmer

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to make a document with table and change page number into Khmer for the whole document. It will also be able to: ・Insert table, format table, and text formatting in the table. ・Change Page number to Khmer in document. ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Insert a table into document and format text in the table. ・Change Page number to Khmer in document.
5	**Main Questions**	・Please tell how to insert a table into a document. ・Please tell how to change page number to Khmer in document.
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition

Week 8: Paragraph, tab stop, and special character

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to format paragraph, setup tab stop, and insert special character on a document. It will also be able to know how to: ・format paragraph ・setup tab stop ・insert special character ・Practice.
4	**Learning Outcomes**	After completing work for this class, you will be able to format paragraph, setup tab stop, and insert special character on document.
5	**Main Questions**	・Please tell how to format paragraph. ・Please tell how to insert special character.
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition

Week 9: Page column and Printing

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to input page column and print the document. It will also be able to know how to: ・Insert page column ・Print document to a hard copy ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to insert page column and print the document to a hard copy.
5	**Main Questions**	・What is the benefit of using page column in document? ・Please tell how to print document?
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports ・Department of Education, Youth and Sport, grade 11, published in 2016 by the Ministry of Education Youth and Sport ・Intel Teach start reading course, 2009 Edition

Week 10: Add different page numbers or number formats to different sections

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use OpenOffice. Org Writer to add different page numbers or number formats to different sections. You will also be able to: ・Describe how to break page section ・Know how to set page numbers in the different page sections ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Explain the benefit of using different page numbers or number formats to different sections ・Insert page number on page header or footer
5	**Main Questions**	・Please tell me how to add different page numbers or number formats to different sections?
6	**Reading List and Resources**	・https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Calc_Guide/ Page_breaks ・https://support.office.com/en-us/article/Add-different-page-numbers-or-number-formats-to-different-sections-BB4DA2BD-1597-4B0C-9E91-620615ED8C05

Week 11: Using bookmarks and Hyperlink

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use bookmarks with hyperlink in OpenOffice.Org writer. You will also be able to: ・Add bookmarks to Writer document and to use them to jump around the document ・Use bookmarks with hyperlink ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Add bookmarks to a Writer document and to use them to jump around the document ・Use bookmarks with hyperlink
5	**Main Questions**	・What do we use the bookmarks for? ・Please describe the benefit of using hyperlink.

6	**Reading List and Resources**	・https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Writer_Guide/Linking ・https://www.webucator.com/tutorial/advanced-microsoft-word/random-useful-items.cfm

Week 12: Working with Long Documents

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn about features that can help you work with longer documents. You will also be able to: ・Add a table of contents to an OpenOffice.org writer document ・Update the table of contents. ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Add a table of contents to a OpenOffice.org Writer document ・Update the table of contents
5	**Main Questions**	・Please tell me how to add a table of contents to a document. ・Why do we need to update the table of contents in a document?
6	**Reading List and Resources**	・https://www.papercheck.com/open-office/create-a-table-of-contents-openoffice-3-2-1/ ・https://www.webucator.com/tutorial/advanced-microsoft-word/working-with-long-documents.cfm

Week 13: Add footnotes, endnotes, and citations to document

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to add footnotes, endnotes, and citations for a document in OpenOffice.org writer. you will also be able to: ・Add Footnotes at the bottom of the page on which they are referenced. ・Use Endnotes collected at the end of a document ・Create bibliography for a document. ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Add Footnotes at the bottom of the page on which they are referenced. ・Use Endnotes collected at the end of a document ・Create bibliography for a document.
5	**Main Questions**	・Why do we need to add footnotes and endnotes to a document or book ? ・Please tell me how to make a bibliography for a document or book.
6	**Reading List and Resources**	・https://wiki.openoffice.org/wiki/DE/Dokumentation/OOo_2.x/Handb%C3%BCcher/Writer-Handbuch/Die_Verwendung_von_Fu%C3%9F-_und_Endnoten ・https://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/Writer_Guide/Adding_a_reference

Week 14: Writing formula in OpenOffice.org writer

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to use arithmetic formulas in OpenOffice.org writer. You will also be able to: ・Insert formula tool to OpenOffice.org writer ・Input formulas into documents.

		・Input formulas by right click ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・Insert formula tool to OpenOffice.org writer ・Input formulas into documents. ・Input formulas by right click
5	**Main Questions**	・Please tell me how to insert formula objects into the writer. ・Please tell me how to input equation formulas into a document.
6	**Reading List and Resources**	・The 3rd Edition of Computer Education for teaching and Learning Booklet, published in 2012 by the Ministry of Education, Youth and Sports(page 30) ・https://wiki.openoffice.org/wiki/Math

Week 15: Protecting text section in OpenOffice.org writer

1	**Date/time**	
2	**Venue**	
3	**Contents**	Here, you learn how to protect any section of text in your document. You will also be able to: ・protect your document from changing ・Practice
4	**Learning Outcomes**	After completing work for this class, you will be able to: ・protect your document from changing or deleting.
5	**Main Questions**	・Why do we need to know how to protect your document?
6	**Reading List and Resources**	・https://wiki.openoffice.org/wiki/Documentation/FAQ/Writer/FormattingText/How_do_I_protect_(lock)_a_section_of_text_so_that_the_content_cannot_be_changed%3F