

## **MANUAL PENGGUNAAN “iCGPA COURSE DEVELOPMENT v2”**

Langkah 1: Pemetaan “Programme Educational Objectives” (PEO) kepada “Programme Learning Outcomes” (PLO)

Sila lengkapkan maklumat di kotak berwarna PUTIH sahaja.

\* Satu PLO sepatutnya dipetakan kepada satu PEO sahaja

| PROGRAMME EDUCATIONAL OBJECTIVES (PEO) - what the graduates are in 5 years time |   | NEXT |  |  |  |  |
|---|---|------|--|--|--|--|
| PEO 1   | knowledgeable and technically competent in medical imaging discipline in-line with the industry requirement.                |      |  |  |  |  |
| PEO 2   | capable to solve medical imaging problems innovatively, creatively and ethically through sustainable approach.              |      |  |  |  |  |
| PEO 3   | effective in communication and demonstrate good leadership quality in an organization.                                      |      |  |  |  |  |
| PEO 4   | able to demonstrate entrepreneurship skills and recognize the need of life long learning for successful career advancement. |      |  |  |  |  |
| PEO 5   | DDDDDDDD  |      |  |  |  |  |

| PROGRAMME LEARNING OUTCOMES (PLO) - what the students will be able to do upon graduation |  | NEXT  |       |       |       |       |
|--|--|-------|-------|-------|-------|-------|
| At the end of this programme, students will be able to:                                  |  | PEO 1 | PEO 2 | PEO 3 | PEO 4 | PEO 5 |
| PLO 1  | acquire and apply knowledge of science and medical imaging fundamentals to diagnostic radiography field (Knowledge in Specific Area)   | ✓     |       |       |       |       |
| PLO 2  | demonstrate comprehensive technical competencies in the Medical Imaging field (Practical Skills)   | ✓     |       |       |       |       |
| PLO 3  | use critical thinking and clinical reasoning skills to identify, analyse, evaluate and solve problems related to Medical Imaging and conduct research to enhance knowledge. (Thinking and Scientific Skills)                                       |       |       | ✓     |       |       |
| PLO 4  | communicate effectively both in written and spoken form with the healthcare team and community. (Communication Skills)   |       | ✓     |       |       |       |
| PLO 5  | understand social culture, global and environmental responsibilities and ethics of Medical Imaging profession in order to function in a multi-disciplinary team related to the healthcare industry (Social Skills, Teamwork, and Responsibilities) |       | ✓     |       |       |       |
| PLO 6  | understand and commit professionally, ethically and with humane responsibility, in line with the Medical Imaging field and the healthcare industry. (Values, Ethics, Moral and professionalism)  |       | ✓     |       |       |       |

Langkah 2: Pemetaan PLO kepada 9 MOE LO (Ministry of Education Learning Outcomes)

Pemetaan PLO kepada 9 MQF LO (Malaysian Qualification Framework Learning Outcomes) dan kepada 6 Malaysian Education Blueprint (MEB) akan berlaku secara automatic, apabila PLO dipetakan kepada MOE LO.

\* Satu PLO sepatutnya dipetakan kepada satu MOE LO sahaja

| PROGRAMME LEARNING OUTCOMES (PLO) - what the students will be able to do upon graduation |  | NEXT  |   |  |   |   |
|--|--|---|---|--|---|---|
| At the end of this programme, students will be able to:                                  |  | Ministry of Education (MOE) Learning Outcomes | Malaysian Qualification Framework (MQF) Learning Outcomes | Malaysian Education Blueprint (MEB) Higher Education |   |   |
| PLO 1  | acquire and apply knowledge of science and medical imaging fundamentals to diagnostic radiography field (Knowledge in Specific Area)   | ✓   |   |  | ✓ |   |
| PLO 2  | demonstrate comprehensive technical competencies in the Medical Imaging field (Practical Skills)   | ✓   |   |  | ✓ |   |
| PLO 3  | use critical thinking and clinical reasoning skills to identify, analyse, evaluate and solve problems related to Medical Imaging and conduct research to enhance knowledge. (Thinking and Scientific Skills)                                       | ✓   |   | ✓  |   |   |
| PLO 4  | communicate effectively both in written and spoken form with the healthcare team and community. (Communication Skills)   | ✓   |   | ✓  |   |   |
| PLO 5  | understand social culture, global and environmental responsibilities and ethics of Medical Imaging profession in order to function in a multi-disciplinary team related to the healthcare industry (Social Skills, Teamwork, and Responsibilities) |   | ✓   | ✓  | ✓ | ✓ |
| PLO 6  | understand and commit professionally, ethically and with humane responsibility, in line with the Medical Imaging field and the healthcare industry. (Values, Ethics, Moral and professionalism)  |   | ✓   | ✓  | ✓ | ✓ |
| PLO 7  | ready to engage in an ongoing life-long learning and management of information in the Medical Imaging and the healthcare industry. (Information Management and Life Long Learning)   |   | ✓   | ✓  | ✓ | ✓ |
| PLO 8  | be self motivated, with entrepreneurship and managerial capabilities for career development. (Management and Entrepreneurship)   |   | ✓   | ✓  | ✓ | ✓ |

Langkah 3: "Constructive Alignment" bagi kursus-kursus dalam program.

Lengkapkan maklumat di dalam ruang berwarna putih.

i) "Course Learning Outcomes" (CLO)

- kenalpasti "verb", "condition" dan "standard" bagi setiap pernyataan CLO.
- kategorikan setiap CLO kepada Bloom'S Taxonomy (C (cognitive), A (affective) dan P (psychomotor)) melalui "verb" yang digunakan. Tekan butang "BLOOM'S" untuk panduan.
- ii) "PLO Addressed by CLO"
- petakan setiap CLO kepada satu PLO yang hendak dinilai.
- apabila PLO dipilih, "Suggested TLA" dan "Suggested Assessment" akan keluar secara automatik. Anda perlu menyatakan TLA dan Assessment yang dipilih di dalam kolumn "TLA Chosen" dan "Assessment Chosen"(anda cuma boleh memilih SATU kaedah penilaian sahaja).
- bagi setiap TLA yang dipilih, sila nyatakan SLT (Student Learning Time) bagi TLA tersebut. Peratusan TLA itu akan dikira secara automatik. Sila nyatakan peratusan yang anda sebenarnya anda inginkan, di dalam kolumn "Weightage"

**Matrix of Course Learning Outcomes vs Programme Learning Outcomes**

(PLEASE ENTER INFORMATION IN WHITE-COLOURED CELLS)

Faculty: Health Sciences  
Programme: HS242  
Course: Medical Imaging  
Course Code: MRD463 Credit : 3 Part: 1

PEO VS PLO PLO VS MOE LO CLO VS PLO iCGPA DATABASE BLOOM'S

SAVE TO PART 1 SAVE TO PART 2 SAVE TO PART 3 SAVE TO PART 4 SAVE TO PART 5 SAVE TO PART 6 SAVE TO PART 7 SAVE TO PART 8

To SAVE this worksheet, as a new file, first, create a new folder in drive C. Name the folder "iCGPA". You will find this worksheet, saved as a new file in this folder, when you click this button.

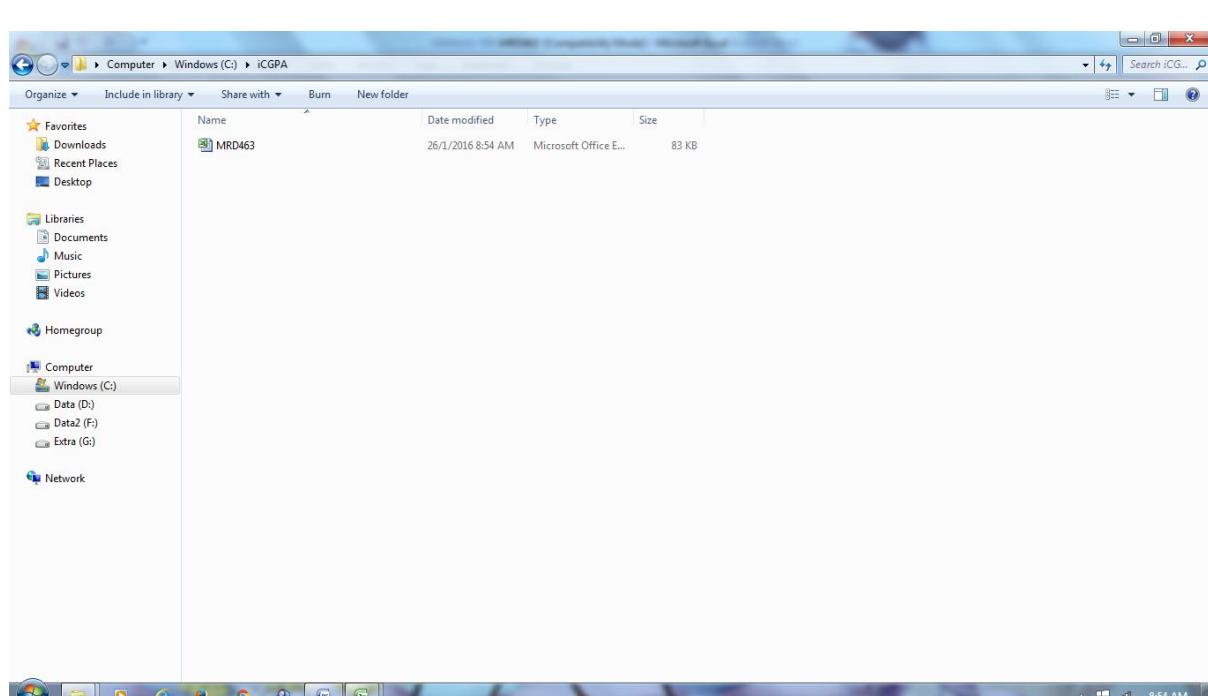
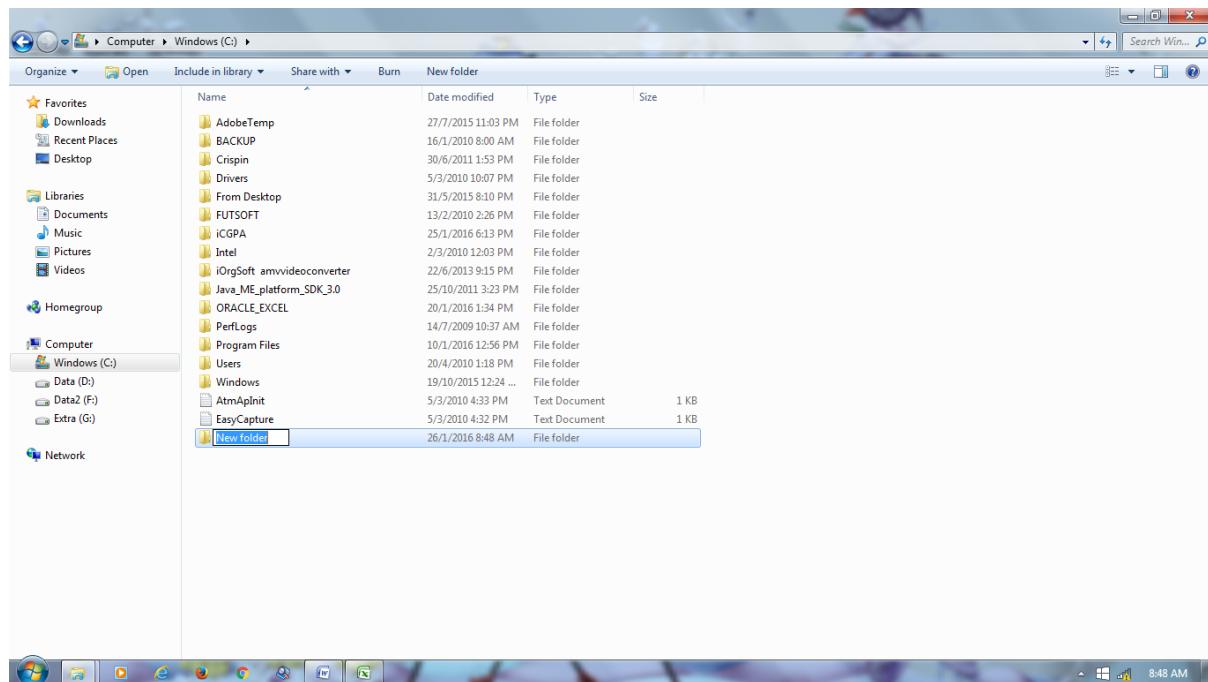
SAVE THIS WORKSHEET TO A NEW FILE

**Course Learning Outcomes** Bloom's Level **PLO Addressed by CLO** (only ONE PLO for each CLO) **Suggested Teaching and Learning(TLA) Strategies** **Suggested Assessment Strategies** **TLA Chosen** **SLT of TLA chosen** **Assessment Chosen (Please choose ONE method)** **Weightage**

| CLO   | Verb     | Condition   | Standard                               | C  | A  | P | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | PLO 11 | 0 | SLT of TLA chosen   | Assessment Chosen (Please choose ONE method) | Weightage |     |
|-------|----------|---|--|----|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|---|---|--|-----------|-----|
| 1     | Propose  | solution to manufacturing and operations problems using related theory and analytical methods           |  |    | A5 |   |       | ✓     |       |       |       |       |       |       |       |        |        |   |   |  |           |     |
| 2     | Organise | in groups to study and present the application of advanced manufacturing and operation analysis methods | based on given topics                  |    | P5 |   |       |       | ✓     |       |       |       |       |       |       |        |        |   |   |  |           |     |
| 3     | Explain  | the main concepts and methods obtained from literatures to professionally analyse                       | the manufacturing and operation system | C5 |    |   | ✓     |       |       |       |       |       |       |       |       |        |        |   |   |  |           |     |
| 4     |          |   |  |    |    |   |       |       |       |       |       |       |       |       |       |        |        |   |   |  |           |     |
| 5     |          |   |  |    |    |   |       |       |       |       |       |       |       |       |       |        |        |   |   |  |           |     |
| Total |          |   |  |    |    |   |       | ✓     |       | ✓     | ✓     |       |       |       |       |        |        |   |   | 98   | 100       | 100 |
|       |          |   |  |    |    |   |       |       |       |       |       |       |       |       |       |        |        |   |   |  |           |     |
|       |          |   |  |    |    |   |       |       |       |       |       |       |       |       |       |        |        |   | PLO 1 PLO 2 PLO 3 PLO 4 PLO 5 PLO 6 PLO 7 PLO 8 PLO 9 PLO 10 PLO 11 0 |  |           |     |
|       |          |   |  |    |    |   |       |       |       |       |       |       |       |       |       |        |        |   | MRD463 ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓  |  |           |     |
|       |          |   |  |    |    |   |       |       |       |       |       |       |       |       |       |        |        |   | PET1 PET2 PET3 PET4 PET5 PET6   |  |           |     |

Langkah 4: Menyimpan data kursus

- Untuk menyimpan data kursus ke dalam "database" program, tekan butang "SAVE TO PART...." mengikut bahagian kursus itu sepatutnya berada. Contoh, kalau kursus itu ialah pada "PART 1" (atau Sem.1), tekan butang "SAVE TO PART 1", dan seterusnya. Maklumat asas kursus akan disimpan ke dalam "database" program. Anda boleh melihatnya dengan menekan butang "iCGPA DATABASE".
- Untuk menyimpan data kursus ke dalam satu fail tersendiri :
  - Buat satu "folder" baru di dalam pacuan (drive) "C". Namakan "folder" itu sebagai "iCGPA".
  - Untuk menyimpan data kursus ke dalam satu fail tersendiri, tekan butang "SAVE THIS WORKSHEET TO A NEW FILE". Data di "worksheet" itu akan di simpan sebagai satu fail baru di C:\iCGPA\. Fail itu akan diberi nama kursus yang dibangunkan. Contoh, jika nama kursus ialah "MRD463", fail itu akan dinamakan "MRD463"



Please TYPE your word in the box below:

(Please enable Macro before using)

**REVISED BLOOM'S TAXONOMY INDICATOR v3.3**

developed for UHEK, HEA UiTM / MNMY @2014

Click this button to see suggested method of assessment for action verb entered

Click this button to see explanation of Bloom's Taxonomy for action verb entered

Word selection according to: **C5**

| Appraise  | Assess    | Choose  | Compare   | Conceive  | Conclude | Consider  | Contrast     |
|-----------|-----------|---------|-----------|-----------|----------|-----------|--------------|
| Criticise | Critique  | Decide  | Deduce    | Defend    | Describe | Determine | Discriminate |
| Estimate  | Evaluate  | Explain | Interpret | Judge     | Justify  | Measure   | Question     |
| Rate      | Recommend | Revise  | Score     | Summarise | Support  | Value     | Weigh        |

BACK

Bloom's Taxonomy for the word **Display**

|    | P2         | P3 | P4                      | P5 | A5 | O                      |
|----|------------|----|-------------------------|----|----|------------------------|
| C1 | Remember   | A1 | Receiving Phenomena     | P1 |    | Perception             |
| C2 | Understand | A2 | Responding to Phenomena | P2 | X  | Set                    |
| C3 | Apply      | A3 | Valuing                 | P3 | X  | Guided Response        |
| C4 | Analyse    | A4 | Organising Values       | P4 | X  | Mechanism              |
| C5 | Evaluate   | A5 | X Internalising Values  | P5 | X  | Complex Overt Response |
| C6 | Create     |    |                         | P6 |    | Adaption               |
|    |            |    |                         | P7 |    | Origination            |

Revised Bloom's  
Anderson, L. W., Krathwohl, D.R. (2001)      Bloom, B.S., Mesia, B.B., Krathwohl, D.R. (1964)      Simpson, E.J. (1972)

**(PLEASE EDIT DATA IN WHITE-COLOURED CELLS ONLY)**

| Course | Credt | Part | PLO Assmt |       |     | Marks |   |       | PLO Assmt |       |   | Marks |     |       | PLO Assmt |       |     | Marks |   |       | PLO Assmt |       |   | Marks |     |       |
|--------|-------|------|-----------|-------|-----|-------|---|-------|-----------|-------|---|-------|-----|-------|-----------|-------|-----|-------|---|-------|-----------|-------|---|-------|-----|-------|
|        |       |      | %         | Marks | PLO | Assmt | % | Marks | PLO       | Assmt | % | Marks | PLO | Assmt | %         | Marks | PLO | Assmt | % | Marks | PLO       | Assmt | % | Marks | PLO | Assmt |

|   |   |     |      |
|---|---|-----|------|
| 0 | 0 | GPA | CGPA |
|---|---|-----|------|

| Course | Credt | Part | PLO Assmt |       |     | Marks |   |       | PLO Assmt |       |   | Marks |     |       | PLO Assmt |       |     | Marks |   |       | PLO Assmt |       |   | Marks |     |       |
|--------|-------|------|-----------|-------|-----|-------|---|-------|-----------|-------|---|-------|-----|-------|-----------|-------|-----|-------|---|-------|-----------|-------|---|-------|-----|-------|
|        |       |      | %         | Marks | PLO | Assmt | % | Marks | PLO       | Assmt | % | Marks | PLO | Assmt | %         | Marks | PLO | Assmt | % | Marks | PLO       | Assmt | % | Marks | PLO | Assmt |

|   |   |     |      |
|---|---|-----|------|
| 0 | 0 | GPA | CGPA |
|---|---|-----|------|

| Course | Credit | Part | PLO Assmt |       |     | Marks |   |       | PLO Assmt |       |   | Marks |     |       | PLO Assmt |       |     | Marks |   |       | PLO Assmt |       |   | Marks |     |       |
|--------|--------|------|-----------|-------|-----|-------|---|-------|-----------|-------|---|-------|-----|-------|-----------|-------|-----|-------|---|-------|-----------|-------|---|-------|-----|-------|
|        |        |      | %         | Marks | PLO | Assmt | % | Marks | PLO       | Assmt | % | Marks | PLO | Assmt | %         | Marks | PLO | Assmt | % | Marks | PLO       | Assmt | % | Marks | PLO | Assmt |

|   |   |     |      |
|---|---|-----|------|
| 0 | 0 | GPA | CGPA |
|---|---|-----|------|