**School of Computing**

|  |  |
| --- | --- |
| Intake | PT UOP MscAI&ML 1&2 BI |
| Module Code and Title | M33878 BUSINESS INTELLIGENCE (BI) |
| Module Lecturer | Ms Yegna Ramachandran Vijayalakshmi  ([yegna.ramachandran@kaplan.edu.sg](mailto:yegna.ramachandran@kaplan.edu.sg)) |
| Assessment Item number | Item 2 |
| Assessment Title | Group coursework |

**Schedule and Deliverables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Deliverable | Value | Format | Deadline / Date | Late deadline  ECF deadline |
| Individual coursework - presentation | 40% | 15-minute individual presentation + slides | 13 May 2025, Tuesday | 20 May 2025  27 May 2025 |

**Notes and Advice**

* The [Extenuating Circumstances procedure](https://myport.port.ac.uk/my-course/extenuating-circumstances) is there to support you if you have had any circumstances (problems) that have been serious or significant enough to prevent you from attending, completing or submitting an assessment on time. If you complete an Extenuating Circumstances Form (ECF) for this assessment, it is important that you use the correct module code, item number and deadline (not the late deadline) given above.
* [ASDAC](http://www2.port.ac.uk/additional-support-and-disability-advice-centre/) are available to any students who disclose a disability or require additional support for their academic studies with a good set of resources on the [ASDAC Moodle site](https://moodle.port.ac.uk/course/view.php?id=3012)
* The University takes any form of academic misconduct (such as plagiarism or cheating) seriously, so please make sure your work is your own. Please ensure you adhere to our [*Student Conduct Policy*](https://policies.docstore.port.ac.uk/policy-261.pdf) and watch the video on [Plagiarism.](https://www.youtube.com/watch?v=2a0QJnCmfEs)
* Any material included in your coursework should be fully cited and referenced in **APA 7** format. Detailed advice on referencing is available from the [library](https://library.port.ac.uk/w165.html), also see [TECFAC 08 Plagiarism](https://www.youtube.com/watch?v=2a0QJnCmfEs).
* Any material submitted that does not meet format or submission guidelines, or falls outside of the submission deadline could be subject to a cap on your overall result or disqualification entirely.

**Important: AI Statement**

AI tools, including Generative AI, **should not be used to**:

* generate content to include in your assessment submission
* generate code to include in your assessment submission

AI tools, including Generative AI, **can be used to**:

* develop your understanding of the concepts covered in the module
* practice use of analytics and programming skills
* check/improve the clarity of your language

**Use AI tools critically**. They make mistakes and their language is not precise. For example, accuracy and precision may be used as synonyms, while in machine learning these are metrics with very specific meaning and using them interchangeably is not appropriate.

## **Coursework Instructions**

The presentation will be 10-12 minutes long, with 3-5 minutes questions.

You are allowed to use any software to create your presentation.

All your visualisations must be in Flourish or Tableau

You can use any software for your BPMN task.

You are not allowed to use more than 12 slides in total.

You need to submit a file with your presentation in ppt or tableau workbook (don't forget the dataset if you use Tableau) or any other suitable format and Turnitin Report.

We need to form groups of 3-5 students.

For group assessments only ONE member of each team need to submit the coursework.

Do not forget that all assessments need to be anonymous but include your student numbers.

# Task 1 BPMN

This coursework aims to equip you with the skills to create Business Process Model and Notation (BPMN) diagrams to represent the mobilization of Computable Biomedical Knowledge (CBK) as outlined in the [manifesto](https://mobilizecbk.med.umich.edu/about/manifesto). You will explore the key principles, mechanisms of activity, and the vision of CBK to develop BPMN diagrams that depict processes fostering the open and [FAIR](https://www.nature.com/articles/sdata201618) CBK ecosystem.

You are required to:

1. Collaborative design of a comprehensive BPMN model simulating the processes involved in mobilizing CBK for healthcare improvement.
2. Presenting this BPMN model focusing on a specific aspect of CBK, explaining the decision-making process, and its impact on healthcare.

You are allowed to use any software to create the BPMN model.

[Total marks: 30]

# Task 2 Data Story.

Please provide a slide presentation that explores your question and shares a story that will benefit your audience. You may or may not focus on the MCBK/healthcare domain.

Your product will:

* Provide clear question(s)
* Tell us your motivation for the topic
* Define key variables including how they are measured
* Tell a clear story
* Have visuals and data that support the story
* Provide documentation about the source of the data set(s)
* Discuss limitations of data set(s).
* Demonstrate understanding of concepts covered in this course.
* Make effective comparisons
* Demonstrate that time was spent exploring your data sets, designing your visual displays, and crafting your story.

Please include the following sections:

A.

Introduction and background. Discuss your motivation for picking your topic. Please include any sources that inspired you. Give context and relevance. What do you want to learn and accomplish? What questions do you want to answer? How will your project benefit others?

B.

Datasets. Describe the datasets that you are using (need at least two datasets). For each dataset include:

* Who collected the data? Who funded the project that the data came from? Other important information?
* Define and describe the variables included in the dataset.
* How large is the dataset (cases, how many and what are the variables)?
* What locations are included in the dataset?
* Describe how the datasets will help you achieve your goals/questions that posed in your introduction, including any limitations.

C.

Create at least three charts in Flourish or Tableau. Please include at least one map and at least one bar chart.

For each chart:

* Tell the reader which data set (if using more than one) each variable comes from, the units (or categories) of the variable, and any other additional information.
* Please explore and reference accompanying documentation! Are there any limitations in the data set? Are there any definitions to share?

As mentioned above, make sure that your variables are clearly defined.

Demonstrate how the chart addresses your question/goal.

Create a Flourish or Tableau story that includes at least three charts and at least two interactive features.

Discuss and describe your charts and tells your audience a story that meets your goals stated in the introduction. Please apply the concepts and principles that we have covered in this module.

[Total marks: 65]

# Task 3 Peer review

This coursework marks (out of 5) will be a weighted average of the marks given by the tutor and the students’ peers.

Marking link will be provided on the day.

|  |
| --- |
| **Guidelines for Peer Marking of Coursework**  When marking the posters take the following into account:  Content   * Is it informative? * Does it tell you what you need to know? * Is it clear? * Is it correct and accurate? * Is it interesting? * Are they properly referenced?   Quantity   * Is there enough detail? * Is there too much detail?   Visual impact   * Is it visible, legible and understandable? * Are the diagrams correct? * Does it make the process clear?   Remember that content is more important than style!! |

**Marking scheme**

| **Marking** | **Task** | **Fail (<40%)** | **Pass (40-49%)** | **Pass (50-59%)** | **Good Pass**  **(60-69%)** | **Excellent**  **(70% +)** |
| --- | --- | --- | --- | --- | --- | --- |
| **Question 1**  **[Total 30 marks]** | | | | | | |
| **15** | **BPMN Model - Collaborative Design** | Minimal or no representation of CBK processes. Inadequate incorporation of principles, mechanisms, and CBK vision. Poor use of BPMN symbols and notation. | Limited representation of CBK processes with significant omissions. Weak incorporation of principles, mechanisms, and CBK vision. Inconsistent use of BPMN symbols and notation. | Adequate representation of CBK processes with noticeable gaps. Basic incorporation of principles, mechanisms, and CBK vision. Adequate use of BPMN symbols and notation. | Substantial representation of CBK processes with some minor omissions. Good incorporation of principles, mechanisms, and CBK vision. Competent use of BPMN symbols and notation. | Comprehensive and accurate representation of CBK processes for healthcare improvement. Exceptional incorporation of principles, mechanisms, and CBK vision. Clear and effective use of BPMN symbols and notation. |
| **10** | **Presentation of BPMN Model** | Incoherent or ineffective presentation of the BPMN model. No clear explanation of the decision-making process and its impact on healthcare. | Limited clarity in presenting the BPMN model. Weak explanation of the decision-making process and its impact on healthcare. | Adequate presentation of the BPMN model. Basic explanation of the decision-making process and its impact on healthcare. | Clear presentation of the BPMN model. Good explanation of the decision-making process and its impact on healthcare. | Exceptional clarity and effectiveness in presenting the BPMN model. Insightful explanation of the decision-making process and its impact on healthcare. |
| **5** | **Overall Coherence and understanding** | Incoherent or no coherence and integration of CBK principles, mechanisms, and vision in both BPMN model and presentation. Fails to understand the interconnections. | Limited coherence and integration of CBK principles, mechanisms, and vision in both BPMN model and presentation. Shows challenges in understanding the interconnections. | Adequate coherence and integration of CBK principles, mechanisms, and vision in both BPMN model and presentation. Demonstrates a basic understanding of the interconnections. | Strong coherence and integration of CBK principles, mechanisms, and vision in both BPMN model and presentation. Shows a solid understanding of the interconnections. | Exceptional coherence and integration of CBK principles, mechanisms, and vision in both BPMN model and presentation. Demonstrates a deep understanding of the interconnections. |
| **Question 2**  **[Total 65 marks]** | | | | | | |
|  | **Assessment Criteria** | **Fail (<40%)** | **Pass (40-49%)** | **Pass (50-59%)** | **Good Pass (60-69%)** | **Excellent (70% +)** |
| **5** | **Content & Context** | Lack of clear question(s) and motivation for the topic. | Basic question(s) but limited motivation for the topic. | Clearly defined question(s) with some motivation. | Well-defined question(s) and clear motivation. | Exceptionally well-defined question(s) and strong motivation. |
| **5** | **Datasets Description** | Incomplete or inaccurate information about datasets. | Basic description with some inaccuracies. | Accurate description of datasets but lacking depth. | Thorough and accurate description of datasets. | Comprehensive and insightful description of datasets. |
| **30** | **Charts in Flourish or Tableau** | Charts are absent or irrelevant to the topic. | Basic charts with limited relevance to the topic. | Relevant charts, but lack of depth and creativity. | Well-designed charts that address the topic effectively. | Exceptionally well-designed charts demonstrating creativity and depth. |
| **20** | **Storytelling & Goal Alignment** | Lack of coherent story and goal alignment. | Basic storytelling with some alignment to goals. | Clear storytelling, but limited alignment to goals. | Coherent story with good alignment to goals. | Compelling storytelling with excellent alignment to goals. |
| **5** | **Interactivity Features** | No or minimal use of interactive features. | Basic interactive features with limited relevance. | Relevant interactive features enhancing user experience. | Effective use of interactive features supporting the story. | Exceptional use of innovative interactive features. |
| **5** | **Peer review averaged mark min 0 and max 5** | | | | | |