The aim of this assessment is to consider what general modelling literature tells us about models and the modelling process and to reflect on how this compares with the experience of practical case studies. This should be considered in relation to the material covered in **MS921 FORBA/MS985 BDM Part 1**

Select a case study from the OR/MS literature.

A range of case studies will be identified and shared in the class materials. Please <u>only</u> make your choice from this list.

You may use the case study that you worked on for the group presentation, but if you do so you should ensure that the work you discuss in this individual assignment is your own.

Section	Marks	Notes
Provide an introduction to the case study which describes key information.	20%	For example, the context, nature of the model, aims, use, and outcomes of the whole intervention.
Using literature to support your discussion, explain in your own words 1) what are the characteristics of a 'good' OR/MS model 2) what are the characteristics of a 'good' OR/MS modelling process	30%	In this section it is vital that you use the literature on modelling and analysis to inform and support your discussion.
Discuss and evaluate the extent to which the model(s) and modelling described in your selected case studies matches these characteristics.	30%	Discussion and evaluation are required in this section. If you believe there has been little information communicated in the case study about modelling process, then state this, and ensure that you cover the characteristics of models comprehensively.
In theory and practice, why would it be difficult for all the characteristics of a good model and a good process to be achieved in an intervention?	20%	A chance to use more literature. You can use your selected case study as an example.

<u>NOTES</u>

- Your essay should be **2000** words +/- 10% as per university policy (please include a word count).
- This is a **structured essay**. Please do not waste valuable word count writing additional introductions and conclusions that will not get you any marks
- Make informed choices as to **allocating word count** to specific sections.
- It is expected that students **write in sentences and paragraphs**. Bullet points should be used sparingly (if at all). If you do use bullet points these should be explained in greater detail.
- Your discussion in your essay should be supported throughout with the **use of literature**. You can refer to the core texts recommended for the class (Williams, and Pidd). You are also expected to demonstrate that you have **read more widely** and refer to other OR/MS modelling literature. as well as other case studies you have read (and any other examples or material which help to illustrate the points that you are making).
- You are asked to use your own words. You should ensure that appropriate referencing is used. Please get guidance if you are unsure how to do this.
 Academic dishonesty can lead to disciplinary procedures including failing the class.
- Please note that it is Departmental policy that all uploaded essays are automatically run through **TurnitIn**.
- Your essay should be uploaded in MyPlace by the time and date indicated.
- Request extensions via MyPlace.
- Please refer to the university marking guide attached

MARK	Descriptor
92, 100	Exceptional demonstration of the learning outcomes
	Exceptional in most or every respect, the work demonstrates all of the
	characteristics noted for First class in the Outstanding range below and is also well
	beyond the level expected of a highly competent student at their level of study,
	and could not be bettered for the level of study.
84	Outstanding demonstration of the learning outcomes
	Outstanding in most respects, the work is what might be expected of a highly
	competent student at their level of study.
	The work demonstrates most of the following attributes:
	 A breadth of appropriate and focussed knowledge, and a deep and
	critical understanding of the subject matter
	 An outstanding standard of synthesis and evaluation, and a critical and
	insightful analysis
	 - Complexity of thought, creativity, insight and/or originality
	Evidence of comprehensive reading and thought of significant
	complexity and well beyond, but still relevant to, course/assignment
	materials
	Outstanding use of references and exemplars, well beyond, but still
	relevant to, course/assignment materials
	 An outstanding standard of writing and communication and/or
	presentation, that is clearly and logically structured
72, 75, 78	Excellent demonstration of the learning outcomes
	Excellent in most respects, the work is what might be expected of a very
	competent student at their level of study. The work demonstrates
	Wide, appropriate and focussed knowledge and critical understanding of
	the subject matter
	• - An excellent standard of synthesis and evaluation and/or shows critical
	and insightful analysis
	• - Some complexity of thought, insight and/or originality - Evidence of
	comprehensive reading and thought beyond course/assignment materials
	 Excellent use of references and exemplars
	 An excellent standard of writing and communication and/or
	presentation, that is clearly and logically structured
Low 2.1: 62	Comprehensive demonstration of the learning outcomes
Mid 2.1: 65	Very good or good in most respects for the level of study in displaying attainment
High 2.1: 68	of the learning outcomes, with marks at the higher end of this scale reflecting
111g112.1.00	stronger and more consistent attainment of the learning outcomes.
	This work demonstrates:
	A very good or good level of appropriate knowledge and critical
	understanding of the subject matter, with only occasional lapses in detail
	Very good or good synthesis, analysis, reflection, understanding and/or
	critical evaluation
	Evidence of reading and thought beyond course/assignment materials
	 Appropriate use of references and exemplars
	A good standard of writing and communication and/or presentation, that
	is clearly and logically structured
Low 2.2: 52	Satisfactory demonstration of the learning outcomes:
Mid 2.2: 55	The work is satisfactory for the level of study and clearly meets the requirements
	for demonstrating the relevant learning outcomes. Marks at the higher end of this

	-
	scale reflect stronger and more consistent attainment of the learning outcomes for this standard of work. This work demonstrates:
	 Satisfactory knowledge and a reasonable understanding of the essential material –
	 Weaknesses in the synthesis and/or analysis, reflection, understanding
	and critical evaluation of material, resulting in parts of the work being
	overly descriptive in nature
	 General accuracy with occasional mistakes and/or reduced focus on the
	main issue or lapses in detail
	 Limited evidence of reading and thought beyond course/assignment
	materials
	 A satisfactory standard of writing and communication and/or
	presentation, where there may be weaknesses in the clarity and/or
	structure of the work
	 Appropriate use of references and exemplars, though there may be minor
	flaws in the referencing technique
Low 3rd: 42,	PG: Fail
Mid 3rd: 45,	Unsatisfactory demonstration of the learning outcomes.
High 3rd: 48	The work fails to meet the minimum requirements for demonstrating the relevant
0	learning outcomes at PGT level. Marks at the higher end of this scale reflect
	stronger and more consistent attainment of the learning outcomes for this
	standard of work, although ultimately insufficiently at year 5 and PGT level. This
	work demonstrates:
	Basic knowledge and understanding
	• A weak argument which is not logically structured or which lacks clarity or
	is based on unsubstantiated statements
	No relevant critical analysis
	• Insufficient evidence of reading and thought beyond course/assignment
	materials
	Poor organisation and/or presentation
	A lack of references and exemplars
32, 35, 38	Inadequate demonstration of the learning outcomes
	The work fails to meet the minimum requirements for demonstrating the relevant
	learning outcomes for the level of study. Marks at the higher end of this scale
	reflect stronger and more consistent attainment of the learning outcomes within this range of marks. This work domenstrates:
	 this range of marks. This work demonstrates: An insufficient level of knowledge and understanding
	 A poorly structured, poorly developed, or incoherent argument, or no
	argument at all
	 An awkward writing style or poor expression of concepts A lack of familiarity with the subject and/or assessment method
	 A fack of failing and the subject and/or assessment method Insufficient evidence of reading and thought beyond course/assignment
	 Insufficient evidence of reading and thought beyond course/assignment materials
	 A lack of references and exemplars
`20	Clear fail: Weak demonstration of the learning outcomes
20	The work is very weak or shows a decided lack of effort. The work demonstrates –
	 Very poor or confused knowledge and understanding, with reference to
	only a few key words, phrases or key ideas –

	 No argument or one based on irrelevant and erroneous content - 	
	Irrelevant content and extensive omissions –	
	 Weaknesses of presentation and/or logic and/or evidence 	
	Inadequate evidence of learning	
	 Incomplete or inadequately presented references, if any 	
10	Minimal demonstration of the learning outcomes	
	The work is extremely weak. The work demonstrates:	
	 No knowledge or understanding of the area in question 	
	 Incomplete, muddled, and/or irrelevant material 	
	Irrelevant or little content, extensive omissions	
	Weaknesses of presentation and/or logic and/or evidence	
	Deficient evidence of learning	
	 Incomplete or inadequately presented references, if any 	
0	No relevant work submitted for assessment	