

# ASSESSMENT PROFORMA

Module Convenor to tick, as appropriate: <b>Formative:</b> <input type="checkbox"/> <b>Summative:</b> <input checked="" type="checkbox"/>	<b>Assessment Deadline:</b> All work should be submitted by 1pm on the day of submission Monday 22 <sup>nd</sup> April 2024
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<b>Module Code:</b> SOCI44115	<b>Module Title:</b> Computational Social Science
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<b>Title of Assessment</b> (e.g. Essay One, Critical Essay, Data Analysis, Reflection, Individual Poster Commentary with Bibliography)	<b>Length / Duration</b>	<b>Component Weighting</b>
Research Brief	3,000 words	100%

<b>The Marking Criteria for this piece of assessment is:</b> Module Convenor to tick in appropriate box and affix criteria to the last page of this document.	
General Essay: <input checked="" type="checkbox"/>	Other: (attached) <input type="text"/>

<b>Assessment Specifics</b> (e.g. Assessment Titles / Narrative / Instructions / Guidance)
<p><b>TITLE:</b> Applying computational methods to complex issues</p> <p><b>NARRATIVE:</b> You are working in the policy and research office of a major third sector organisation (charity, lobby group, political party...). Your boss has just come back from a conference excited about the potential for computational methods to help develop proposals about difficult policy issues. She is particularly excited about four methods that are new to her:</p> <ul style="list-style-type: none"><li>• Clustering</li><li>• Qualitative Comparative Analysis</li><li>• Social Network Analysis</li><li>• Agent-Based Modelling</li></ul> <p>You are required to help her understand the potential of these methods to help understand a socially relevant topic of your choice and the practical implications of applying these methods to that topic.</p> <p><b>INSTRUCTIONS:</b> Do ONE of the following</p> <p><b>Option 1:</b> Compare two methods</p> <p>Choose a topic of interest where complexity is relevant and two research questions that consider aspects of that topic. Prepare a research brief of 3000 words (+/- 10%, excluding bibliography) that describes how computational methods could be used to answer those questions. Two different methods must be chosen, one for each question.</p> <p>Your brief should cover:</p> <ul style="list-style-type: none"><li>• Background describing the social policy context for your topic of choice, including the ways in which complexity is relevant;</li><li>• For each of your two research questions and methods:<ul style="list-style-type: none"><li>○ the question, the method you would use to understand or answer that question, and why that method is appropriate</li><li>○ How that method would be applied, including data sources or data collection, what attributes are required</li><li>○ Difficulties in applying the method and how they could be managed</li></ul></li></ul>

- Compare the contributions of the two methods, including how they complement each other and contribute to an overall understanding of the topic.

## **Option 2: Example analysis**

Choose a topic of interest where complexity is relevant and a dataset (for clustering, QCA or SNA) or NetLogo library model (for ABM). Prepare a research brief of 3000 words (+/- 10%, excluding bibliography) that describes how the method could be used for your topic and conduct some analysis using your dataset or model.

Your brief is to help your enthusiastic **boss** better understand the method and how it could be useful. It should cover:

- Background describing the social policy context for your topic of choice, including the ways in which complexity is relevant;
- Research question that the method and dataset/model could be used to answer and why that method is the most appropriate choice for the question
- Justification of the choice of dataset/model – for example, why are the cases and attributes the in the dataset the right ones, how does the ABM represent a relevant social process
- Apply the method using your dataset (see additional instructions)
- Difficulties in applying the method and how they could be managed

The analysis section should comprise about half of the brief. You are not expected to do a full analysis, but instead provide sufficient detail so that your enthusiastic boss better understands the method and how it could be useful. Suitable analyses for each of the methods are:

- Clustering: apply k-means or self organising map to the data, assess the quality of the clustering solution, and interpret the findings. You do not need to optimise the number of clusters but should discuss this in your brief.
- QCA: apply crisp QCA to your dataset and interpret the findings. If you have contradictions, you can assign different truth values without justifying that these new values are appropriate, so the method finds a solution. You should discuss appropriate ways to resolve contradictions in your brief.
- SNA: visualise the network (or a piece of the network), calculate two relevant network properties and interpret the findings.
- ABM: modify a NetLogo library model with one of the extensions suggested in the information page, create and run appropriate scenarios using BehaviorSpace (10 runs of each scenario is sufficient) and interpret the findings by comparing the scenarios.

**GUIDANCE:** The connection between the complexity aspects of the topic and the method that you have chosen to research that topic is particularly important. You must justify how the method you have chosen is appropriate to deal with the complexity of the social issue, but no method is a perfect fit so you must also discuss what it cannot achieve.

# POSTGRADUATE TAUGHT MARKING CRITERIA

<b>Extensions:</b>	Summative work can only be agreed by the Chair of the Board of Examiners. Failure to hand in your assessment on time without an agreed extension will result in a mark of 40% being recorded for work submitted within 5 working days of the deadline and zero being recorded for work submitted more than 5 working days after the deadline.
<b>Word Limits:</b>	Exceeding word limits will result in penalties. Please see the student handbook.
<b>Assessment Irregularity:</b>	Suspected cases of plagiarism or collusion will ALWAYS be referred to the appropriate Chair of the Board of Examiners for investigation. If accusations are found to be true, the penalties range from reduction of marks to the possibility of being dismissed from the University on grounds of assessment irregularity. Please see <a href="#">University regulations on Assessment Irregularities</a> .

	Classification				Fail (below 50%)	
	Distinction		Merit	Pass		
	80+	70 - 79	60 - 69	50-59	40 - 49	39 or less
<b>Structure and Argument</b>	Highly cohesive, clearly focused and structured in a logical manner that makes the work both easy to follow and highly persuasive. Of professional quality.	Very cohesive, clearly focused and structured in a logical manner that makes it both persuasive and easy to follow. There are only minor elements which would benefit from further refinement.	Largely cohesive, focused and convincing but may occasionally be distracted from the core focus of the work or lack persuasiveness. Mostly well-structured, but some elements may not fit as well together as they could.	Generally cohesive but may sometimes lack clarity of focus or persuasiveness and some points may lack clear relevance. Typically well-structured but some elements may be confusing or not fit well together.	Somewhat cohesive but often lacking focus. Points are frequently tangential or lack clear relevance. The structure is often confusing with points that do not fit well together or which contradict and the main argument being made.	Cohesion is limited. The central focus is unclear and points often lack relevance. Some structure but generally confusing and hard to follow. Points may exhibit significant contradictions that undermine the overall argument.
<b>Depth of Knowledge</b>	Comprehensive and consistently accurate, with a level of detail comparable to professional academic work. Clear evidence of extensive knowledge beyond directly-taught content that entirely fulfils the requirements of Masters level work.	Extensive knowledge of the topic which is consistently accurate and very detailed. Evidence of substantial knowledge beyond directly-taught content appropriate to Masters level work.	Significant knowledge of the topic appropriate to Master's level work which is accurate and generally well-detailed. Knowledge beyond directly-taught content is present but may not be extensive. Some elements may be superficial or lack nuance.	Clear and largely accurate knowledge appropriate to Masters level work but may be limited or lack detail. Gaps in knowledge and/or minor inaccuracies may be evident. Knowledge beyond directly-taught content may be limited.	Clear knowledge of the basics but with significant inaccuracies, gaps and/or limitations in knowledge. Concepts and issues are outlined in a superficial or partial manner insufficient for Master's level work.	Some awareness of the basics have been expressed, but there are major gaps in knowledge and/or significant inaccuracies, demonstrating a clearly-insufficient depth of knowledge for Masters level work.
<b>Application and Analysis</b>	Very effective application and integration of knowledge and evidence. Discussion is consistently insightful and grounded in independent critical thought which may include aspects of originality. Content may be approaching publishable standard.	Effective application and integration of knowledge and evidence to produce. The discussion is clearly informed and often insightful, demonstrating independent critical thought.	Generally good application and integration of knowledge and evidence, demonstrating strong comprehension of relevant concepts and ideas. There is some evidence of independent critical thought but depths of insight may have occasional limitations.	Reasonable application and integration of knowledge and evidence, but there may be inconsistencies or occasional limitations. Discussion may be largely reliant on others' ideas, with sufficient but limited signs of independent thought.	Application and integration of knowledge and evidence is limited and insufficient for Masters level work. The work may be largely descriptive and discussion limited to others' arguments and ideas, with little or no sign of independent thought.	Application and integration of knowledge and evidence is minimal. The work is more or less entirely descriptive and does not meaningfully engage in critical discussion or analysis.
<b>Use of Sources</b>	Draws on an extensive range of appropriate sources to inform and substantiate the work that is fully appropriate for Master's level study, which includes substantial evidence of independent study.	Draws on a substantial range of appropriate sources to inform and substantiate the work that is appropriate to Master's level study. There is clear evidence of independent study but occasionally scope for evidence to be refined or developed further.	Draws on a good range of appropriate sources to inform and substantiate the work that is appropriate to Master's level study. There are signs of independent study but some elements lack good evidence.	Draws on a fair range of appropriate sources to inform and substantiate the work that is appropriate to Master's level study but evidence is sometimes weak or lacking. There are some signs of independent study but this is limited.	Draws on some appropriate sources to inform and substantiate the work but the range and quality is not fully sufficient for Master's level. Evidence is often weak or absent and there are minimal signs of independent study	Draws on no or very few appropriate sources to inform and substantiate the work and so wholly inadequate Master's level work. Evidence is largely weak/absent throughout and there are no meaningful signs of independent study.
<b>Presentation and Style</b>	Work is clear, accurate, appropriately presented/styled and highly engaging.  References are formatted accurately throughout.	Work is clear, accurate and appropriately presented/styled.  References are formatted accurately throughout.	Work is predominantly clear, accurate and appropriately presented/styled.  References are formatted accurately throughout.	Work is generally clear, accurate and appropriately presented/styled.  References are largely correct but there may be some minor mistakes in details or format.	Work is typically clear and accurate but presentation/style is not fully appropriate.  There is evidence of referencing but with frequent mistakes and/or limitations.	Work is often unclear owing to inaccuracies and/or poor presentation/style.  Referencing may be attempted but with frequent mistakes and/or limitations.