Appendix A: Targeted Assessment Rubric for Interdisciplinary Writing

Category 1: Purposeful

	Naïve	Novice	Apprentice	Master
1.1 Does the framing of the problem invite an integrative approach?	The paper does not contain an identifiable purpose or the purpose is unclear.	The paper has a discernible purpose but it is not clear that it calls for an integrative approach. Or The paper does identify a problem that calls for an integrative approach but the purpose of the paper is not clearly stated or the purpose is unviable.	The paper has a clearly stated purpose that calls for an integrative approach. However, the paper offers no clear rationale or justification for taking this approach. Or The paper's purpose appears somewhat ambitious.	The paper has a clearly stated purpose that calls for an integrative approach and a clear rationale or justification for taking this approach.
1.2 Does the paper use the writing genre effectively to communicate with its intended audience?	There is little sense of an academic genre being used and the intended audience is unclear.	An academic genre is discernible but multiple violations of the genre (e.g. organization, tone, referencing, vocabulary) limit its ability to communicate with the intended audience. Or The writing is not fluid. It requires multiple readings.	An academic genre is clear and generally adhered to. There is obvious awareness of the intended audience, often representing more than one discipline. The paper reads fluidly. No innovation within the genre is visible or if there is any attempt at innovation it is not effective. The paper may have minor errors in tone, mechanics, and referencing.	An academic genre is clear and consistently adhered to and there is obvious awareness of the intended audience, often representing more than one discipline. Any innovation within the genre is effective and deliberate.

Category 2: Grounded in Disciplines

	Naïve	Novice	Apprentice	Master
2.1 Does the paper use disciplinary knowledge accurately and effectively (e.g., concepts, theories, perspectives, findings, and examples)?	A disciplinary knowledge base is not discernible in the sense that the ideas and information included do not stem from any particular disciplinary tradition. Misconceptions and folk beliefs abound. In some cases, jargon is used with little evidence of understanding. And /or sources are misused	Disciplinary concepts, theories, perspectives, findings, or examples are used in simplistic, general, or mechanical ways—as in the "textbook" version of a discipline. Key claims are sometimes not supported, or concrete disciplinary examples are disconnected from key claims. Some misconceptions and unwarranted use of jargon may be present. Sources are used pro-forma.	Concepts and theories are used effectively in accordance to their disciplinary origins, in ways adopted by disciplinary experts. Theories and generalizations are consistently supported with examples or findings from the disciplines involved. Conversely, concrete cases and examples are interpreted with disciplinary concepts and theories. Relevant and credible sources are	In addition to the qualities outlined at level 3, a well organized network of concepts, theories, perspectives, findings, and examples within one or more of the selected disciplines is clearly visible. Some insightful new examples, interpretations, or responses within the selected disciplines may be present. There is sophisticated use of
	in a major way—e.g., non- credible sources, misunderstanding the meaning of the source(s) used, relying too heavily on one source.		used intelligently to advance the argument of the piece, though the paper may have too many unnecessary sources, or key sources be missing.	sources. The sources used are relevant and credible and integrated thoughtfully and purposefully to advance the papers' argument.
2.2. Does the paper use disciplinary methods accurately and effectively (e.g., experimental design, philosophical argumentation, textual analysis)?	The paper shows little to no awareness of the methods, habits of mind, and validation criteria by which knowledge is constructed and verified in the disciplines. Opinions and information summaries are presented as matters of fact.	The paper shows awareness or use of disciplinary methods and modes of thinking in one or more of the included disciplines, but employs them mechanically, superficially, or algorithmically. There may be oversimplifications and misconceptions about methods (e.g. if someone assumes statistics results are true).	The paper accurately employs methods, modes of thinking (e.g., ways to select evidence or construct causal accounts), and validation criteria to construct knowledge in one or more of the selected disciplines.	The paper accurately employs methods, habits of mind, and validation criteria to construct knowledge in one or more of the selected disciplines. It does so effectively, exhibiting language that describes the constructed nature of disciplinary knowledge (e.g., the provisional nature of insights, the limits of generalizations, the multiplicity of interpretations).

Category 3: Integration

	Naïve	Novice	Apprentice	Master
3.1. Does the paper include selected disciplinary perspectives and insights from two or more disciplinary traditions presented in the course or from elsewhere that are relevant to the paper's purpose?	The paper shows no evidence that <i>disciplinary</i> perspectives are used to address the paper's purpose. Multiple perspectives or points of view may be considered but these do not represent <i>disciplinary</i> views and/or are not clearly related to the paper's purpose.	The paper includes two or more relevant disciplinary perspectives or fields. But the connections between the included disciplinary insights and the purpose of the work are superficial or unclear. Crucial disciplinary perspectives may be missing.	The paper includes two or more relevant disciplines or fields. Selected disciplinary insights are clearly connected to the purpose of the work. Disciplinary perspectives that are tangential to the purpose may be present, or relevant perspectives missed.	The paper includes two or more relevant disciplines or fields. Selected disciplinary insights are clearly connected to the purpose of the work. No unrelated disciplinary insights appear and no crucial perspectives are missing. If the paper includes some tangential perspectives which are, however, original it should be considered Level 4 for this criterion.
3.2. Is there an integrative device or strategy (e.g., a model, metaphor, or analogy)?	The paper may explore the topic in a holistic way but connections are unclear and there is no obvious sense of integration.	The paper may explore the topic in a holistic way, making valid connections across disciplinary or field perspectives; however, insights from different perspectives are not integrated coherently or effectively. In some cases, disciplinary concepts, theories, perspectives, findings, or examples are placed side by side; connections and analogies are made but no overall coherent integration is discernible.	An integrative device (e.g., a leading metaphor, a complex causal explanation) clearly brings disciplinary insights together in a generally coherent and effective way.	A novel, imaginative, or well-articulated integrative device (e.g., a leading metaphor, a complex causal explanation) is used to bring disciplinary insights together in a coherent and effective way.
3.3. Is there a sense of balance in the overall composition of the piece with regard to how the disciplinary perspectives are brought together to advance the	The paper shows an imbalance in the way particular disciplinary perspectives are presented in light of the purpose of the work (e.g. particular disciplinary	The paper attempts to balance perspectives but this is built on artificial or algorithmic grounds rather than substantive ones (e.g., giving equal weight to each	Disciplinary insights in the paper are generally balanced on substantive grounds in light of the purpose of the work. However, one or more aspects of	Disciplinary insights are delicately balanced to maximize the effectiveness of the paper in light of the purpose of the work. The integration is elegant and

purpose of the piece?	perspectives are given disproportionate weight for no obvious reason).	disciplinary perspective studied irrespective of its substantive relevance to the problem at hand).	the argument may be weakly addressed.	coherent and there are no distractions in the building of the argument.
3.4. Do the conclusions drawn by the paper indicate that understanding has been advanced by the integration of disciplinary views?	The paper attempts to make connections across different perspectives but these are unrelated to the apparent purpose of the paper.	Minor efforts at integration are present. Or a language of integration is present but is used mechanistically to yield minimal advancement toward the intended purpose.	The paper makes a valid integration of disciplinary insights to generate understandings linked to the purpose of the paper. However, some obvious opportunities to advance the purpose of the paper are overlooked or undeveloped.	The paper takes full advantage of the opportunities presented by the integration of disciplinary insights to advance its intended purpose both effectively and efficiently. The integration may result in novel or unexpected insights.

Category 4: Critical Awareness

	Naïve	Novice	Apprentice	Master
4.1. Does the paper exhibit awareness of the limitations and benefits of the contributing disciplines?	There is no awareness of the differing contributing disciplines or fields or their benefits or limitations (e.g., the topic is only approached from a commonsense or very general standpoint).	There is awareness of which disciplines are being used but there is no or only brief discussion of the limitations and/or benefits of the disciplinary contributions. There may be some misconceptions about how the disciplines are being used.	The benefits and/or limitations of the differing contributing disciplines or fields are sufficiently and clearly discussed. Some of the points made may be general or obvious.	The benefits and/or limitations of the differing contributing disciplines or fields are discussed clearly, insightfully, and in relationship to one another (e.g. students not only describe individual contributions but highlight how views complement, balance, add empirical grounding or put into question insights from other disciplines included in the work).
4.2. Does the paper exhibit self-reflection?	The paper does not include consideration of its own strengths or limitations. Ideas are presented at face value without skepticism or reflection.	Comments on the strengths and limitations of the paper and its integrative approach, seem mechanical, superficial, or in passing. Ideas are mostly presented at face value without skepticism or reflection.	There is sufficient comment on the strengths and /or limitations of the paper and its integrative approach, although the points made may be general or obvious. ¹	There is consistent awareness of the strengths and limitations of the paper and its integrative approach. A tentative tone is adopted and alternative integrative approaches may be considered.