# ENTIEN YLLABU

# Syllabus Resources

The Sentient Syllabus Project<sup>1</sup>



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This document contains patterns of text for academic syllabi in an era of Al tools. Simply copy what you find helpful and reuse in your own syllabus. If you find this useful, tell others about it. If you find errors, omissions, or have other suggestions, please let us know so we can improve it.

Summaries appear in a shaded box like this one.

Notes to educators are in an outlined box.

Text in a serif font is meant to be copied and used.

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In Flux New 2023-01-04

Keep in mind that the situation is in flux and robust institutional responses have yet to appear. The date of the last revision appears at each section heading.

A disclaimer in your syllabus will be helpful. Part of the reason why this is difficult territory is that copyright issues have not been resolved and this raises the question of institutional liability. At this time, we cannot even propose what a copyright statement might look like. Be careful with assessments; departmental guidelines would typically allow you to change the rubrics, as long as this happens before submission, but re-weighting assessments may be difficult.

Expect changes. The developments around AI synthesized text are in flux and the rules that are expressed in this syllabus may need to change on short notice. This may affect the contents of assignments, as well as their evaluation.

## Three Principles

Last revision 2022-12-28

All our considerations derive from three principles:

- 1. An Al cannot pass a course.
- 2. Al contributions must be attributed and true.
- 3. Al use should be open and documented.

Three Principles. AI (Artificial Intelligence) resources are widely available to generate text, images, and other media. We encourage the use of AI tools to inform yourself about the field. to understand the contributions that AI can make, and to help your learning. However, keep the following three principles in mind: (1) An AI cannot pass this course; (2) AI contributions must be attributed and true; (3) The use of AI tools should be open and documented.

The following minimum passing requirements are likely higher than what you would have accepted previously. This can be made explicit with AI generated examples that show what is no longer considered sufficient.

To pass this course: Submissions that are substantially AI generated cannot achieve a passing grade. This is necessary if we are to ensure you can compete wherever AI resources are readily available – whether in academia, research, the workplace, or other domains of society. Either we learn to surpass the AI, or the AI becomes a competitor. To give you a sense of the level you need to surpass on this course, we will produce, analyze, and provide sample solutions that have been generated by AI.

Referencing ensures attribution. Validation ensures facticity. Details on both are included in the section on <u>Academic Integrity</u>.

Referencing and validating. You are taking full responsibility for AI-generated materials as if you had produced them yourself: ideas must be attributed and facts must be true.

We expect benefits from encouraging the open use of Al tools. (1) Students will become competent in the use of Al tools, (2) the risk-benefit balance of illicit use will change, and (3) students will understand the Al's weaknesses and their own strengths.

*Openness*. We encourage you to use AI tools to explore the field, play with knowledge, and help you study. But you need to be open about this, and document your use.

You could consider reserving a portion of your grade for student's documentation of their Al use. This will further incentivize them to be transparent about the Al's contributions. Details are included here.

A portion of your term grade will be based on your documentation of AI use throughout the course. By keeping track of your AI use and sharing your experiences, we gain understanding, identify potential issues, and discover ways to use the tools better.

This section mostly concerns submission of assignments with a substantial writing component, but keep in mind that AI tools can contribute to planning, research, finalizing, and formatting, and it can produce images, music, video and other media.

Common AI tools can easily write entire essays, even books. The *Generic writing* text sample can apply to essays, reviews, reports, abstracts, annotated bibliographies, grant proposals, and many more – and to other media in spirit. Assessment should focus on how students surpass this level. Note that this may put students who do *not* use AI resources at a disadvantage. That is the new reality.

General writing. While the submission of partially AI-generated materials is allowed in principle, it is important that you properly document your use of AI. This includes your use for drafting an outline, preparing individual sections, combining elements and removing redundant parts, and compiling and annotating references. Your documentation must include your prompts, the significant parts of the AI response, and comments on the process. You also need to explain how your submission surpasses what the AI can do. Remember to adhere to our standards for attribution, validation, and transparency. Assessment will focus on that part of your submission that surpasses the initial contributions of the AI.

Computer Code. While the submission of partially AI-generated materials is allowed in principle, it is important that you properly document this in the code comments. Comments should not need to explain what the code does, but why it does that. Your documentation must include your prompts and the significant parts of the AI response. AI tools may help you avoid syntax errors, but there is no guarantee that the generated code is correct and it is your responsibility to identify errors in program logic. Comprehensive testing is required and must be documented. Moreover, generated code is seldom elegant, in particular regarding separation of concerns, and repetitive code. Your submissions will require additional work to improve the code, and you need to explain how your submission surpasses what the AI can do.

*Closed book exam/quiz.* The use of AI tools is not permitted.

*Open book exam/quiz*. The use of AI tools is permitted, provided you follow our standards for attribution, validation, and transparency.

This section concerns the use of AI tools within the scope of performance based assessment, such as tests of practical skills, observation and demonstrations, oral tests, presentations, literature circles, role-playing, or live peer feedback. No specific text is provided, since Al-generated materials Al should be covered above. Some notes may be helpful.

- Al tools may play a significant role in drafting, structuring and otherwise preparing performance assessments, such as presentations, debates, discussions, scenarios etc. The documentation of such contributions was described above.
- Wherever performance based assessments are primarily meant to exclude access to resources (closed book format), they may be vulnerable to cheating, especially during online assessments. Moreover, such assessment may have limited relevance outside of exam situations. You may consider moving to an open-book format instead.
- However, the speed with which the Al can provide and cross-reference facts is remarkable, and already surpasses what most humans can do. If the assessment format allows it - for example in small group assessments - you could actually include an AI as a participant, prompted by the instructor or a TA. This would help students understand how the AI can be used to provide a point of departure which can and should be surpassed, allow them to critically evaluate contributions without the social burden of possibly causing offence, and catalyze community intelligence in a constructive us-versus-it competition in which there are no losers.

Al tools that are in common use today write through a formal process that does not involve understanding. This means, for the purpose of referencing, the Al itself is not a valid source, nor can the Al take responsibility for factual accuracy.

*Academic Integrity*. Academic Integrity involves more than trying to steer clear of academic offences. But AI tools require your special attention to two aspects: attribution and facticity. As with your own work, you must take responsibility for both. This section defines the standards you must apply.

It may be impossible to determine the specific sources the AI draws on. But that does not remove the obligation to attribute ideas that go beyond common knowledge in a particular field. The boundary between ideas that are common knowledge and those that need to be referenced varies between disciplines, it is important to make this explicit. More problematic may be the AI's tendency to concoct references to its sources when asked. This is a consequence of the probabilistic nature of the algorithm. But it raises an issue for the requirement to be factually correct (below). Note that AI generated text can generally not be identified as plagiarism. This is one of the reasons we advocate for open use. Instead of measuring the similarity of expressions and phrasing, we focus on the the source of *ideas*.

Attribution. All ideas that are not originally one's own have a source and that source must be referenced. This applies to your work, but it also applies to the AI itself: since the AI does not have ideas of its own, you need to find and reference the original source that supports its assertions. An appropriate reference must have the required format, state the exact location of the referenced fact in the source, and include a working link to the source. If you quote the AI itself, label it as "synthesized communication" and reference it like the conventions for a "personal communication". Note that this "synthesized communication" is not a valid source for facts, only for the conversation itself.

Remarkable factual errors can appear since the Al does not actually understand its text but creates a *plausible* response. Therefore references may not exist, quoted sources may actually state the opposite, logical contradictions and *non sequiturs* may appear, and cited text may be inaccurate. Fact-checking is required, and documented evidence for fact checking is required too, to help students avoid committing an academic offence through negligence.

Facticity. Sometimes the AI makes mistakes. It happens that statements are eloquent and confident – but entirely false. In addition, the AI's statements may reflect biases in its training data. You need to check the facts, the references, the quotes, the logic – and document in an appendix what you did to validate the AI's assertions. Submitting factually wrong material is an academic offence, and whether the source of the error is you or the AI makes no difference.

### Specific Assessment Types

#### Sample rubrics

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These sample rubrics are generic and apply to all types of materials that include Al-generated content.

These six levels reflect the conventions of many North-American universities..

Outstanding: A+ (90–100%)
Excellent: A (80–89%)
Good: B (70–79%)
Adequate: C (60–69%)
Marginal: D (50–59%)
Inadequate: F ( < 50%)</li>

Inadequate is a failing grade.

#### Sample rubrics: generic

Level	Description
Outstanding	Advances the field. Mastery of critical reflection on AI generated content; demonstrates the ability to abstract from the material, establish non-obvious relationships, and productively extend the source material; strong evidence of original thinking and deep understanding. May serve as a model on how to surpass AI generated content.
Excellent	Accomplished. Insightful critical reflection on AI generated content; convincing improvements that include non-trivial connections; some original thinking; clear evidence that the level of understanding surpasses that of the synthesized contributions. In total, a significant improvement over AI synthesized content.
Good	Competent. Critical reflection on AI generated content; generally successful attempts to improve on it; evidence that the material has basically been understood. Important further improvements beyond the quality of AI generated content could be made.
Adequate	Significant gaps. Use of AI generated contents needs more critical reflection; attempts to improve need to be more convincing; not all material appears to have been understood. There is obvious and significant scope to further improve beyond the quality of AI generated content.
Marginal	Large gaps. Unreflected use of AI generated content; attempts to improve on it are inconsistent and not always coherent; lack of evidence that the material is understood. Barely surpasses the quality of AI generated content.
Inadequate	Shows no significant improvements over AI generated content.

A good way to understand participation is "the contributions that flow from the student back into the course". We might assess a contribution in discussion groups, chats, or group activities, and evaluate it according to the effort it demonstrates. However, the availability of AI tools has made it much more difficult to assess such effort. This can be addressed if contributors demonstrate their use of AI to provide a baseline, and how their personal contribution brings the result above and beyond that level.

Assessment of participation needs to be somewhat open-ended, otherwise the metric becomes the goal. Therefore we generally do not publish rubrics for participation, but base assessment on our general understanding of performance levels.

Participation marks. Participation is evaluated through the contributions you make to the course, such as discussions and class activities. Your contributions should be continuous, meaningful, enrich the course experience for all and support our learning objectives. We encourage you to use AI tools to enhance your participation, in particular, keep in mind the value of demonstrating how the AI can be used to provide a baseline, which can be refined and surpassed.

#### Documenting AI use for credit

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When students document their use of Al tools, it helps us understand the benefits and challenges, and contributes to developing best practice. By giving course credit for this activity, we recognize that the competent use of the tools is itself a learning objective, and we discourage illicit use. We include sample text and marking rubrics.

This is a new type of assessment, and students will need a sample document for guidance. Compiling such a document would be an excellent task for a TA at the beginning of the term. We think assigning 10% of term marks to this component would strike a good balance between providing a meaningful incentive for the students and not taking away from the main objectives of the course.

Documenting AI use. Throughout this term, you will maintain a journal that documents significant interactions with AI tools, for course credit. Document your prompts, the AI's responses, and how the response was used. You should include the documentation that you may have appended to other submitted work, but also exploratory use of the tools, and reflections on your experience. If you have a lengthy conversation with the AI, you may use an ellipsis "[...]" to truncate its response, but you must include your own prompts in full, without any omission. Through such documentation and reflection, you will contribute to a knowledge base of best practice and help others learn from your experiences.

#### Sample rubrics: documenting AI use

Level	Description	
Outstanding	Engaging; illuminating reference for others; demonstrates the ability to abstract principles from observations; includes creative solutions to problems. A significant contribution to best practice.	
Excellent	Complete, commented documentation; has comments on unexpectedly valuable or misleading outcomes and some suggestions for how to improve the interaction in principle. In its entirety a useful contribution to best practice.	
Good	Complete, but including some irrelevant parts; should have more reflection. Still, many parts are a useful contribution to best practice.	
Adequate	Mechanical copy/paste over significant stretches; unclear objectives of the conversation; however mostly coherent and structured with headings. Only a few parts are useful as documentation of best practice.	
Marginal	Mostly mechanical copy/paste; very little reflection; not always coherent and structured. Barely useful to establish best practice.	
Inadequate	Incomplete, disorganized, patchy, lacking reflection. Prompts were not fully recorded. Not useful as documentation of best practice. Or, no significant additions to AI generated material.	

[END]