University of London International Programmes – Creative Computing CO3346: Sound and music Coursework assignments 2015–16

Introduction

The following two coursework assignments are to enable you to obtain a broader and deeper understanding of specific material in this unit. To obtain the most benefit, you should read widely, rather than just reading enough to enable you to answer the particular questions asked.

You should take this as an opportunity to become more expert in an area of the subject than is otherwise possible when only studying towards examinations. It is also an opportunity to further develop your creative portfolio.

Academic approach to discussion questions

You are expected to approach the coursework assignments in this unit in a rigorous and academic way. While it is fine to use Internet search tools and Wikipedia to obtain a broad understanding of a topic, it is also essential that you use reliable academic references to obtain your information.

In any essay that you write, you must make sure that you use and cite your reference material appropriately. You can look at the end of any journal or conference paper to get an idea of how to do this. This is a final year unit, and we fully expect students to be able to cite and reference material correctly.

We also expect you to approach the work in an informed and critical manner, and to develop an ability to form views based on evidence (substantiating any strong claims you may make), and to argue in support of your claims.

Creative Computing CO3346 Coursework assignment 1: 2015–16

Algorithmic approaches to music creation

In Chapter 3 of the subject guide, you are given a brief introduction to algorithmic approaches to music creation. For Coursework assignment 1, you are required to read further in the area of algorithmic music composition, and to investigate algorithmic approaches more deeply.

Part A

First, answer the following general questions about this area, in an academically rigorous way. It is essential that your answers are written as complete paragraphs, and that you cite and reference correctly.

1. What is this general area of algorithmic composition? (Here you are not expected to focus solely on algorithmic composition of music, but to take a more general view.) How would you explain it to a knowledgeable non-expert in the field? [3%]

2. How are algorithmic approaches to composition connected to computer approaches? Describe briefly the history of this field, referring to the literature with appropriate citation and referencing. Note that there are algorithmic approaches that have not necessarily used computational technology; be sure to include a discussion of this aspect in what you write. [15%]

3. What about the connection to composing music (as opposed to other art forms)? Discuss this aspect specifically, and also mention the main researchers, main difficulties, and main successes in this area. [7%]

4. List with full reference two important academic papers that are in the field of algorithmic composition of music. (You may NOT choose any of the ones listed later in this coursework assignment.) Explain briefly what they are about, and why they are significant in the area. Please make sure that your explanations of what they are about are not simply a rewording of the abstracts or summaries of the content; you need to make the conceptual links. Also make sure that you do give the complete references for the papers, as you would if you were writing a research article. [10%]

5. Is there a difference between *algorithmic* composition of music, and *generative* approaches to music composition? Explain and substantiate your response. [5%]

Part B

The second part of this coursework assignment involves an in-depth investigation of a particular aspect of generative music.

1. Choose one of the research papers listed below, to read and analyse. You are to present the results of your work in a description, discussion and critique of the main ideas of the paper (in the form of an essay, max 2,000 words). You may well need to read other material as well as the main paper, in order to fully understand the paper, its relevance, and any context, and this may also be relevant to your critique.

   ▶ Nick Collins (2008) 'The Analysis of Generative Music Programs', Organised Sound, 13, pp 237–48.

   ▶ Michael Edwards, 'Algorithmic Composition: Computational Thinking in Music", Communications of the Association for Computing Machinery, Vol. 54, No. 7 (July 2011): 58–67.

   ▶ Williams, D., Kirke, A., Miranda, E. R., Roesch, E. B. & Nasuto, S. J. (2013) ' Towards Affective Algorithmic Composition', in: Proceedings of the 3rd International Conference on Music & Emotion (ICME3), Finland, 11th–15th June 2013. Geoff Luck & Olivier Brabant (Eds.). University of Jyväskylä, Department of Music.

   [40%]

2. What are the connections, if any between algorithmic and/or generative approaches to music composition (which kind of approaches you choose to focus on may depend on your response to Part A.5), and *live coding*? You should read broadly and come up with a position, and explain and substantiate your position. Your response is to be in the form of a short essay, up to 1,000 words, with appropriate academic rigour. [20%]

Your submission for all of the above is to be as PDF. Please submit two separate documents, the first called *YourName-YourSRN*-PartA.pdf and the second called *YourName-YourSRN*-PartB.pdf. Do not put these submissions into an archive; you should upload them as separate files. (*YourName* should be your own names.)

[Total 100 per cent]

[END OF COURSEWORK ASSIGNMENT 1]

Creative Computing CO3346 Coursework assignment 2: 2015–16

Creating a sonic artefact using an algorithmic approach

The first part of Coursework assignment 2 requires you to read and critically assess another student's attempt at a project in this area. You will find on the VLE two different coursework attempts to a previous assignment. (Bear in mind that the assignment itself was a different one to the one you have been given, so it is important that your critique is based on the assignment as set, which is also included with the example attempts.) You should critically evaluate **one** of the attempts that are given, including giving your assessment of the strengths, weaknesses, and the approximate grade you would give for the work. Make it very clear which of the two example attempts you are evaluating. Write this as a short report (you should be able to do this within 500 words), and include some advice to the student.

For the second part of this coursework assignment, you are to take an algorithmic approach to music generation, and come up with some music or sound art! The chapter in the subject guide that discusses swarm music is a very clear example of doing this, but there are many other approaches as you will have seen from working through the first coursework assignment.

The only constraint is that the approach must be generative or algorithmic, and you must very clearly relate what you have done to the published literature in the area. You will have read and explored much of this in the first coursework assignment, and here you are to put this into practice. Work that does not relate very clearly to published work, and work that does not make the connections explicit, will obtain much lower marks than work that does.

While you may use the swarms example as a basis for what you develop, bear in mind that the examiners are looking for originality as well as academic rigour, so taking that approach directly will not obtain high marks in the originality score, unless you do include some additional creative aspects.

We are looking for originality and creativity, and we are looking for a coherent academic approach. You should also be able to describe and assess your own work.

Submit three things:

1. Your critical evaluation of a previous project in this area, using one of the two examples found on the VLE. Please call this *YourName-YourSRN*-Critique.pdf. [20%]

2. Your creative artwork, and any software that you have developed in order to create it. Include sound files as appropriate, and if they are large, use an audio compression format, e.g. FLAC or Vorbis (both royalty-free formats). Enclose all of the files for this part of the coursework assignment in a zip file called *YourName-YourSRN*-Artwork.*ext*. (*ext* will depend on the kind of archiving format you are using.) Please include, in your zip file, a `readme` file giving instructions to the examiner about how to listen to or experience your work. [60%]

3. A report that does three things: describes the approach you have taken, including rationale and connection with published work; discusses any appropriate technical aspects of your work; and gives a critical analysis of where it has succeeded as an artwork, and where it may be further enhanced or developed. Please call this *YourName-YourSRN*-Report.pdf. [20%]

Again, do not combine these three parts into an archive; you need to upload one zip archive (which may contain a range of items) and two pdf files with your written work for this coursework assignment (your critique of the other work; and your report about your own work). Students whose submissions do not respect the above requirements will have marks deducted.

[Total 100 per cent]

[END OF COURSEWORK ASSIGNMENT 2]