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This course consists of integrated lecture, tutorial and practical work. For the first four weeks of the semester there will be a three hour period, which will include a lecture and small group exercises/tutorials, group discussions and other methods to facilitate student learning.

Alternate lecture weeks will be followed up with homework assignments, which students will take away and solve and submit the following week for assessment. These will contribute towards the final course mark.

There will be a quiz assessment in week 7 contributing to the final mark. This will assist with solidifying the theory and content covered in the earlier weeks, before the laboratory sessions start in the following weeks.

From Week 5 to Week 10, a set of laboratory experiments will be conducted to help develop a practical and intuitive understanding of op-amps.

A final extended revision tutorial will be given in advance of the final assessment.

Additional Course Information

Presumed knowledge

A good background in mathematics and physics is essential. Basic knowledge of chemistry is assumed. Some knowledge of electrical engineering would also be extremely advantageous, though the basics will be covered in the early weeks. The MATLAB programming environment will be used in the laboratories and as part of some homework exercises, so familiarity with MATLAB or some other programming language will be helpful. If you enroll in this course, an additional Moodle module will be made available to you which contains some MATLAB tutorial material, videos and quizzes to help bring you up to speed.

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