



SCHOOL OF BIOTECHNOLOGY AND BIOMOLECULAR SCIENCES

BABS3200: SYNTHETIC BIOLOGY



COURSE NOTES

TERM 2, 2019

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| Course Identity | |
| Course Code | BABS3200 |
| Course Name | Synthetic Biology |
| Academic Unit | School of Biotechnology and Biomolecular Sciences |
| Level of Course | Third-year undergraduate |
| Units of Credit | 6 |
| Term Offered | Term 2 |
| Assumed Knowledge or Prerequisites | Stage 2 molecular biology, biochemistry, or genetics |
| Hours per week | 6 hours per week |
| Number of Weeks | 10 weeks |
| Commencement Date | Week 1, Term 2, 201 |

Week

Location and times:

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| Administration Matters | |
| Expectations of Students | <p>A pass in BABS3200 is conditional upon a satisfactory performance in the practical program. A satisfactory performance means that you have:</p> <ul style="list-style-type: none"> < Attended the practical classes (an attendance record is kept). < Satisfactorily submitted all assigned work. < Ability to work independently and in a team environment. |
| Assignment Submissions | Requirements vary with each assigned task. Your lecturer will advise accordingly. |
| Occupational Health and Safety | <p>Information on relevant Occupational Health and Safety policies and expectations at UNSW: http://www.hr.unsw.edu.au/ohswc/ohswc_home</p> |
| Assessment Procedures | <p><u>SPECIAL CONSIDERATION</u> Students who believe that their performance, either during the session or in the end of session exams, may have been affected by illness or other circumstances may apply for special consideration. Applications can be made for compulsory class absences such as (laboratories and tutorials), in-session assessments tasks,</p> |

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| | <p><u>SUPPLEMENTARY EXAMINATIONS</u></p> <p>The University does not give deferred examinations. However, further assessment exams may be given to those students who were absent from the final exams through illness or misadventure. Special Consideration applications for final examinations and in-session tests will only be considered after the final examination period when lists of students sitting supplementary exams/tests for each course are determined at School Assessment Review Group Meetings. Students will be notified via the online special consideration system as to the outcome of their application. It is the responsibility of all students to regularly consult their official student email accounts and myUNSW in order to ascertain whether or not they have been granted further assessment.</p> |
| Equity and Diversity | <p>Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course Convenor prior to, or at the</p> |

Group Project

Design of a synthetic biology device or innovation

iGEM is a worldwide synthetic biology competition to build genetically engineered systems using standard biological parts.

In this group project, we will run a “mini-iGEM” to design unique genetically engineered systems that aim to address and solve a real-world problem.

Your team will design a synthetic biology device or innovation and describe:

- < What it does
- < The problem it solves or applications of the innovation
- < How it works
- < How it would be built

The final submission will be in the form of a written report and a group presentation.

For inspiration, explore previous iGEM team entries (http://igem.org/Main_Page). One initial approach is to think about significant challenges in the world (e.g. environmental plastic pollution) and brainstorm how synthetic biology could potentially solve the problem (e.g. engineering of microbes to digest plastic).

