**Schedule A**

Use this document to provide relevant project details about your organization and your project and send it back to the faculty Capstone Projects Coordinator (email provided at the end of this document).  
Please use simple text formatting as the data within this document is exported into our Projects database and formatting is lost during the export process. **NOTE: One Project per Form please**

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| **1** | **Client/Organisation Name:** | Melbourne Genomics Health Alliance |
| **2** | **Organisation Description:  *Brief description of your business*** | The Walter and Eliza Hall Institute of Medical Research |
| **3** | **Address:** | 1G Royal Pde, Parkville, 3052 |
| **4** | **Website:** | http://melbournegenomics.org.au |
| **5** | **Direct Contact:** | Dr Natalie Thorne |
| **6** | **Contact Title:** | Clinical Bioinformatics and Genomics |
| **7** | **Telephone:** | 03 9936 6326 |
| **8** | **Email:** | thorne@wehi.edu.au |
| **9** | **Host Supervisor: *Who, from your Organisation, will be supervising the Project?*** | Natalie Thorne |
| **10** | **Supervisor Title:** | Clinical Bioinformatics and Genomics Project Manager |
| **11** | **Department:** | Innovation and Adoptions Stream |
| **12** | **Telephone(s):** | 03 9936 6326 |
| **13** | **Email:** | Natalie.thorne@melbouregenomics.org.au |
| **14** | **Project Title:** | Genomics Sequencing Batch Quality Control System |
| **15** | **Referred by: *Who referred the Client/Organisation to Swinburne?*** | A/Prof Clara Gaff |
| **16** | **Estimated Project Length:  *e.g. 1 or 2 semesters*** | 2 semesters |
| **17** | **Project Description:**  ***Brief description of project being undertaken.  (One Project per Pro-forma please)*** | Patient samples are analysed in batches on Next Generation DNA Sequencing machines along with Null Template Control (NTC) that produce genomics data. For each batch there is a requirement to analyse the quality of the sequencing data along with the NTC to determine if there are any quality issues with using the data for clinical interpretation (curation). If issues are identified then samples may require re sequencing.  The system needs to accept the DNA sequencing data (FASTQ files) along with some metadata that instructs the system what do to and then use a series of pre-existing QC applications to generate QC data which is then checked against pre-determined criteria to determine if QC passes or fails.  Various laboratories have implemented similar systems so there would be an investigation stage to review existing systems, design an optimum system and then develop it. |
| **18** | **Project Specialisations Area:   *e.g. Research, Mobile Application Design(Android & IOS); Database Design; Network Design & Security; Robotics; Application Development; Systems Analysis & Design; Web Development & Design etc.*** | Database Design, Application Development, Systems Analysis & Design. |
| **19** | **Project Skills:   *Brief description of any specific skills students will require undertaking this project. e.g. Business Analysis; Systems Analysis; Project Management; Software Programming; OIS; Android; Business Intelligence etc.*** | Software programming  Project Management  Business Analysis |
| **20** | **Project Environment:   *Hardware/Software/ Programming Languages e.g.***  ***Android; IOS; C++; HTML; CCS3; Java; SQL; Visual Basic Script; Visual C++; XML, UNIX, Windows etc.*** | Linux (Ubuntu), BASH, Python, PostgreSQL |
| **21** | **Research Component:**  ***(Where applicable use this section to state topic of research relevant to this project. This may be part of the project or the entire project)*** | A bit of research into existing systems and potential improvements to those systems with newly available open source applications. |

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| **Overview of this Proposal** | |
| 1. The purpose of this exercise is to provide an educational opportunity for the Student(s) to obtain real-world experience as part of their course of study. 2. The Contracting Party or Host Organisation wishes to support the skills development of the Students by providing details of their project to Swinburne and agrees to provide the Students with the opportunity to undertake the Project. 3. All parties acknowledge that Project details may vary as the skills of the Student(s) are assessed or the Project requirements change. 4. Neither Swinburne nor the Student(s) provides any guarantee in relation to the quality, originality, operability, delivery or any other aspect of any work undertaken or material produced by the Student(s) as part of the Project. 5. The relationship between the parties is voluntary and involves no payment or only nominal work experience payments within regulatory requirements. 6. Swinburne will arrange for the Students to assign any Intellectual Property in the Projects to Swinburne. Swinburne will then assign the Project IP to the Contracting Party or Host Organisation. 7. The Contracting Party, or Host Organisation, and Swinburne agree to perform their obligations in accordance with the terms and conditions of the STUDENT PROJECT AGREEMENT. 8. The STUDENT PROJECT AGREEMENT will be issued to the Contracting Party or Host Organisation once their Project has been accepted by Swinburne and students have been assigned to the project. | |
| **Permission to market the Proposal to Students** | |
| *Swinburne University seeks permission to market an overview of your project to prospective students, as an example of the types of projects offered under the Internship Project unit.  NB: No company or personal details will be identified.* | |
| I Agree to allow details of the project to be marketed to prospective students. | |
| **Name:** | Natalie Thorne |
| **Date:** | 22/2/2018 |

**Send this completed Capstone Proposal to the Faculty of Science, Engineering and Technology, School of Software and Electrical Engineering, Capstone Projects Coordinator at: rbartels@swin.edu.au**