OSSIS Scope – Capstone Project

1. Project History

OSSIS is medical device company that specialises in designing custom implant devices primarily for custom hip implants. OSSIS is NZ owned and has been operating in the industry for 15 years. OSSIS is the only custom implant provider in Australasia. Operating in the medical device industry requires strict controls over every part of the business. OSSIS has grown substantially over the past few years and the current workflow and inventory systems are no longer keeping up with the increased demand for OSSIS products.

2. Scope

The project will require the student to study the current control systems primarily, but not limited to:

- Workflow
- Inventory control

Workflow includes all input of patient data into the OSSIS database. Currently there are 5 separate systems to record patient data that all operate independently of each other. These systems include Workflow Max (a subsidiary of Xero), Miro board, Job Register (excel spreadsheet), Project database (excel spreadsheet) and timesheets (excel spreadsheet).

Inventory control is currently very limited. Each case is custom, so the custom parts required are not considered inventory. However, a set of instruments is required for each case and these are limited to the instrument inventory. Additional items such as custom OSSIS screws are also inventory. Currently there is no control over inventory other than manual input as each case is getting packaged for sending.

The expected outcomes of the project are to unify each area listed above and reduce the redundancy of multiple entries into various systems.

For Workflow the student is asked to find ways to programme the current systems to work together so that only one data input is required or to develop/advise on a new system that requires only one input of data.

For inventory control the student is asked to develop an inventory system that keeps current records of all instruments and custom screws, dependant on the upcoming surgeries. An automated document system that lists all instruments and screws required for our current Case Check List and Theatre Support documents would add additional benefit. The ability to consult the stock in / stock out, and the history of returned devices.

3. Constraints

Currently OSSIS has no clear indication of how the projects will be able to work in a cohesive way. It will be up to the student to inform OSSIS of how they think it will be best achieved.

The amount of work for each of the two requirements could potentially exceed that allowed for the course. Therefore, OSSIS is happy for this to be a two-person project, with each student taking the

responsibility of either workflow or inventory. However, the two students will need to work together to deliver a cohesive system.

4. Project Implementation

The project will be purely up to the student to advise OSSIS of the best way forward to implement the requirements.

All OSSIS managers will be available every step of the project to give advice and instruction. The students will have the ability to work from the OSSIS office (providing their own laptop) to enable them to completely immerse themselves into the OSSIS workflow if they require.

Additional information with regards to patient confidentiality will be readily available to the successful applicant(s).

5. Business Processes

The overall outcome of this project is to reduce the amount of manual inputs and therefore decrease the chance of information being inputted incorrectly.

The successful outcome of this project will have major impacts on the business process of OSSIS. If successful, the project will streamline the business process and enable OSSIS to continue our expansion into the custom device industry with less repeated inputs that OSSIS currently has.

6. Student Outcomes

The student is expected to create a programme(s) that improves on the system currently used within the OSSIS workflow and inventory systems.

The student must show how their systems have improved the current systems used at OSSIS.

The systems must be designed in a way that can be implemented by any OSSIS employee inputting the data.

Any student that shows a complete understanding of the business and how their knowledge of automated computer programmes could benefit the company will have the possibility of future employment (part or full time) within the OSSIS operations team.