## STEM Faculty – 2021-2022 Scope & Sequence – Year 12 Information Processes & Technology

| Core Topic 1 – Project Management         This topic is intended to give students an understanding of the underlying theory of project management as well as an opportunity to plan, design and implement an information system that has a purpose.       Core Topic 2 – Information Systems & Databases         Skills developed throughout the topic:       •   |        | Creating Futures   | 2   | 3   | 4                                | 5 | 6 | 7 | 8                              | 9 | 10 | 11   |
|---|--------|--|---|---|----------------------------------|---|---|---|--------------------------------|---|----|------|
| Image: Note of the processes       Image: Note of the processes | TERM 4 | plan, design a<br>Skills develop<br>• Tech<br>• Unde<br>• Plan<br>• Desig<br>• Imple | and implement<br>bed throughout<br>niques for mar<br>erstanding the p<br>ning<br>gning solutions<br>ementing<br>ing, evaluating | an information<br>the topic:<br>naging a project<br>problem<br>and maintainin | nderstanding o<br>system that ha |   |   |   |                                |   |    |      |
| Core Topic 2 – Information Systems & Databases (cont.)Core Topic 3 Communication SystemsCore Topic 3 Communication SystemsCommunication systems support people who are working together, by<br>enabling the exchange of data and information electronically. In this to<br>the information processes of transmitting and receiving are featured, w<br>the other processes considered when relevant because all information<br>processes play a role in communication systems.Skills developed throughout the topic:<br>Storage and retrieval<br>Other information processes<br>Problem solving issues related to information systems and databases<br>( <i>Outcomes: H1.1, H1.2, H2.1, H2.2, H3.1, H3.2, H4.1, H5.1, H5.2, H6.1, H6.2 H7.1, H7.2</i> )Communication systems<br>Communication systemsCommunication systems<br>and receiving in communication systemsCommunication systemsCommunication systemsCommunication systemsCommunication systemsCommunication systemsCommunication systemsCommunication systems <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Part A –<br/>Management<br/>Plan</th><th></th><th></th><th></th></t<>   |        |  |   |   |                                  |   |   |   | Part A –<br>Management<br>Plan |   |    |      |
| <ul> <li>The emphasis in this topic is on the processes of organising, storing and retrieving with database systems and hypermedia.</li> <li>Skills developed throughout the topic: <ul> <li>Development and maintenance of information systems</li> <li>Development and maintenance of database information systems</li> <li>Development and maintenance of database information systems</li> <li>Dorganisation</li> <li>Storage and retrieval</li> <li>Other information processes</li> <li>Problem solving issues related to information systems and databases</li> </ul> </li> <li>(<i>Outcomes: H11, H1.2, H2.1, H2.2, H3.1, H3.2, H4.1, H5.1, H5.2, H6.1, H6.2 H7.1, H7.2</i>)</li> </ul>   |        |  | 2   |   | ,                                |   |   |   |                                |   |    | <br> |
|   |        | 1  | -   | -   | -                                | - |   | 7 | 8                              | - | -  |      |

|  |  |  |  | Case Study Part<br>B – research |  |
|--|--|--|--|---------------------------------|--|
|  |  |  |  | and                             |  |
|  |  |  |  | Implementation<br>25%           |  |

|        | 1          | 2                           | 3          | 4  | 5  | 6  | 7   | 8  | 9             | 10  |
|--------|------------|-----------------------------|------------|--|--|--|---|--|---------------|---|
| TERM 2 | Core Topic | : 3 Communicatio<br>(cont.) | on Systems | wide breadth of<br>topic emphasis<br>Skills developed<br>Identific<br>Identific<br>Method<br>Other in<br>Problem | ultimedia system<br>f experience. Mult<br>es the informatio<br>d throughout the<br>cation of characte<br>cation of example<br>ls of displaying in<br>nformation proces<br>n solving issues r | s, especially whe<br>imedia systems of<br>n process of disp<br>topic:<br>eristics of multime<br>s of multimedia syst<br>sess in multimedia<br>related to multime | encompass the e<br>blaying.<br>edia systems<br>systems<br>ems<br>ia systems<br>edia systems | s<br>nvolve many part<br>ntire information<br><i>2, H6.1, H6.2 H7.1,</i> | process. This | Option Topic 2<br>– Automated<br>manufacturing<br>Systems |
|        |            |                             |            |  |  |  |   | Multimedia<br>Systems Project<br>30%                                     |               |   |

|        | 1 2                   | 3                   | 4   | 5   | 6   | 7  | 8  | 9    | 10   |
|--------|-----------------------|---------------------|---|---|---|--|--|------|------|
| TERM 3 | Trial HSC<br>Exams    | Trial HSC<br>Review | Automated mar<br>manufacturing<br>processing, a si<br>mechanical act<br>information pro<br>collecting.<br>Skills developed<br>Identifie<br>Identifie<br>Method<br>Other in<br>Problem | on Topic 2 – Auto<br>nufacturing syste<br>equipment. Data<br>ignal is sent to an<br>ion. While such in<br>cesses, the inform<br>d throughout the<br>cation of characte<br>cation of types of<br>ls of storage and<br>nformation proces<br>n solving issues n<br>mes: H1.1, H1.2, H2<br>7.2) | ms have compute<br>is gathered throu<br>a actuator, a device<br>formation system<br>nation process for<br>automated many<br>retrieving in auto<br>sses in automate<br>related to automate | erised controls by<br>igh sensors and f<br>ce that performs a<br>ms carry out all o<br>ocused on in this<br>ated manufacturi<br>ufacturing system<br>mated manufacturing<br>ated manufacturing | uilt into the<br>following some<br>some<br>f the<br>topic is<br>ng systems<br>ns<br>uring systems<br>systems<br>ng systems | Revi | sion |
|        | Trial HSC Exam<br>30% |                     |   |   |   |  |  |      |      |