A. ABOUT THE PROJECT
As part of NTU’s curriculum, all final year students in the Sport Science and Management programme are required to undertake a project, supervised by academic staff. This project will involve in-depth study, investigation and testing in any of the areas/courses offered on the programme. It comprises a total of 6 academic units in the final semester of study. The student is required to give a poster presentation at the end of the study (30% final mark) and submit a formal report (70% final mark) upon the completion of the project.

This set of guidelines is prepared so that all students are aware of the various requirements in terms of project schedules and project report and presentation. Please note that you who are responsible for the work, not your supervisor(s). You should think through your project strategy and plan and arrange for the necessary conducting of any related testing or surveys. Your supervisor(s) will be around to assist you and to provide you with guidance. Therefore you should consult your supervisor(s) on a regular basis, especially during the critical moments of your project work. They will not, however, do the work for you. Please note that project supervisors are not allowed to examine or check drafts of your final project report. This is an independent piece of work.

B. SELECTING A PROJECT
[NEW] Students will propose to SSM committee a tentative topic or FYP title and three scientific fields or areas of interest. To do so, kindly fill in the online form by 17 February 2017: https://goo.gl/forms/qfUovdbjktiSnJJn1

Upon that, SSM committee will allocate a supervisor to each FYP student. The allocation of your supervisor is final.

Kindly be reminded of the NTU Institutional Review Board’s (IRB) guidelines and obtain the necessary approval for projects which will be published: http://research.ntu.edu.sg/GuidelinesnForms/Pages/default.aspx. It may take 2-3 months for approval. [NEW] You must apply to IRB approval before 30 of June 2017.

You are not allowed to start the experiments before 11 December 2017 even if you get the IRB approval letter in the meantime. Please note that this rule includes projects that are being conducted at your internship company. If you wish to conduct your FYP at the same company, you have interned with then you must collect data during the mid-December-to-April period and not beforehand.
C. POSTER PRESENTATION (30% FINAL MARK)

You are required to submit and present one poster detailing your research project to your supervisor. The poster presentation must be completed by **1700 on 04 April 2018**. You must also submit an A4 copy of your poster and a pdf copy to your supervisor. You will be assessed on the quality of your poster, your ability to explain your research and your ability to answer questions. Details of the poster format are given below:

1. Presentation to the supervisor will be done with an E-Poster in A1 size (841 × 594 mm).
2. Narrative must be clear and readable from a distance of 1.2 m. The title, author, course name and institution are to be prominently displayed across the top border as indicated in the sample poster template indicated in Appendix A. The actual poster template can be downloaded from the SSM website. [NEW] The FYP student is the sole author of the poster. Hence, anyone that helped the student, should be acknowledged under a dedicated section instead of credited with authorship.
3. Hard copy of the poster will be printed afterwards to be presented at the Lau Teng Chuan (LTC) Physical Education and Sports Science Symposium, edited accordingly to supervisor’s feedback over the presentation.
4. Attendance and presentation by the FYP student at the LTC Physical Education and Sports Science Symposium is mandatory and reflected on the FYP grade (The tentative date of the LTC symposium: 06 April 2018).
5. Poster displays must include an ABSTRACT (in the upper left hand corner) and other text narrative. Depending on the focus of the research you can also include TABLES, FIGURES, ILLUSTRATIONS, PHOTOGRAPHS and LEGENDS.
6. The information presented on the poster is expected to be coherent and straightforward and informative by itself. Please remember to emphasize on the important points without overwhelming viewers with too much details. Specific recommendations include:

   i. In the INTRODUCTION – briefly summarise the necessary background (with citations) that led to this work, clearly identify the purpose or specific aims of the present experiment, and identify the questions asked or hypothesis(es) tested.
   ii. Provide sufficient detail of the EXPERIMENTAL DESIGN and the METHOD employed to do the work, including number and necessary demographics of the participants studied. Also include the statistical method(s) used to analyse/summarise these data.
   iii. RESULTS may be effectively presented by table, figure, illustrations and/or photograph. Make each stand on its own, so the viewer does not have to refer elsewhere on the display to understand the important message(s). For each table, figure etc., a lucid INTERPRETATIVE LEGEND will go a long way in highlighting and *briefly* discussing the essential points. Do NOT interpret results in this section.
   iv. SUMMARY AND CONCLUSION – *briefly*, what re the vital ‘bottom lines’ of your work? What are recommendations for further research?
v. ACKNOWLEDGEMENTS – identify individuals, without excessive praise, who have contributed significantly to help you with your research.

vi. REFERENCES - all citations within the document should be listed in American Psychological Association format.

7. General points to bear in mind with respect to the poster presentation:

i. Use large dark lettering.

ii. Keep tables and figures simple and uncluttered.

iii. Strong visual contrast is a must. Many individuals have difficulty distinguishing closely related colours, like green from blue, or among subtle shades of a primary colour, particularly against incompatible background colours.

iv. Use large and unique symbols or shading patterns to distinguish groups and conditions, with a more sparing use of colour to make these distinctions.

You will be asked to present and summarise your poster to your supervisor within 5 minutes. You will then be questioned on the content and presentation.

D. REQUIREMENTS FOR FORMAL REPORT (70% FINAL MARK)

You will need to submit a hard copy of your final report to your project supervisor by **1700 on 11 April 2018**. In addition a pdf copy of the report must be emailed to the supervisor at the same time. Late submissions for the project report will be penalised according to the following scheme:

<table>
<thead>
<tr>
<th>Submission delay</th>
<th>Penalty (% reduction)</th>
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</thead>
<tbody>
<tr>
<td>&lt;24 hours</td>
<td>5%</td>
</tr>
<tr>
<td>24 hours-&lt;7 days</td>
<td>10%</td>
</tr>
<tr>
<td>7-14 days</td>
<td>25%</td>
</tr>
<tr>
<td>&gt;14 days</td>
<td>Fail</td>
</tr>
</tbody>
</table>

A copy of the full text report must go to the library through Digital Repository @ NTU. http://repository.ntu.edu.sg/handle/10356/51927

Details of the submission procedure are available at the following web address: http://repository.ntu.edu.sg/drntu/procedure.htm

[NEW] NTU takes very seriously any concern on research integrity. Hence, at project end all Informed Consent forms and data (physical and electronic) resulting from the project must be passed to the FYP Supervisor to keep. Students who have not passed the data to Supervisors will face disciplinary action.

E. REPORT FORMAT

1. Format
The format of the report must be laid out in a standardized manner. Margins should be as follows: left 3.0cm, right 2cm, top 2.54cm, bottom 2.54cm. Pages should be numbered at the bottom in the centre. Please use 12 point Times New Roman font. Text should be double spaced and left-justified throughout. The main body of your report (excluding abstract, acknowledgements, figures, tables, diagrams, references and appendices) must be no more than 5,000 words in length. A word count is required at the end of the conclusion. The report must be ring bound. The front cover must include the title of the report, the student’s name, degree (BSc) and year.

2. Cover page
The report must be ring bound. The front cover must include the title of the report, the student’s name, degree (BSc) and year. Please see Appendix B. The title of the project should accurately reflect the work within without being overly lengthy.

3. Statement of originality
Serious action will be taken against any student who plagiarises in whole or in part his/her final year report. Each student must include a signed copy of the statement given Appendix C on originality of the work.

4. Abstract
An abstract of no more than 250 words is required for your report. The abstract should succinctly describe the work in no more than one page:
- The background, purpose or hypothesis to your study.
- The research design and methods you employed. This should include the basic design, setting, number of participants and selection criteria, treatment or intervention and methods of assessment.
- Results – describe the main significant findings from the study. You should include data to substantiate your conclusion(s) being drawn. It is not satisfactory to simply describe what was found verbally in general terms.
- Conclusions to your project. Describe what is valid and relevant from your findings.
- Include three to five keywords.

5. Acknowledgements
Relevant thanks for assistance and support with the project work should be acknowledged. Excessive and disproportionate praise for supervisors, family relatives or significant others is not encouraged.

6. Contents page
An accurate contents page must be provided before the main report. Please see Appendix D.

7. List of tables (if any)
A list of tables with their corresponding page numbers must be provided before the main report. All tables must be numbered throughout the report.

8. List of figures (if any)
A list of figure with their corresponding page numbers must be provided before the main report. All figures must be numbered throughout the report.

9. List of abbreviations (if any)
Abbreviations should only be used where necessary. All abbreviations used in the project must be fully defined in their first instance of use. In addition a list of any abbreviations used must be provided before the main report. Do not use the same abbreviation for multiple terms. Do not begin a sentence with an abbreviation even if previously defined.

10. List of symbols (if any)
All symbols used to represent concepts in the project must be listed before the main report.

11. Introduction
Set the scene for the project. Clearly state the rationale and purpose of the project and the main reasons for undertaking it. Set clear aims and hypotheses for the project. Please remember a research project should either a) move forward a field of knowledge or, b) clarify the answer to an existing research question. It is not sufficient to simply state that no one has done the project before – this is not a rationale for a research study.

12. Review of Literature
Comprehensively describe the existing literature which is relevant to your research topic. Be critical of the literature identifying existing gaps in the knowledge. Identify the strengths and the level of evidence of the research you review – primary or secondary source of information; observational or experimental evidence.

13. Method
This section should describe exactly what you did in your research. The method section should contain sufficient detail to allow other researchers to reproduce your results. The following information must be given:

- Indicate that any human subject procedures were in accordance with the ethical standards of the relevant Institutional Review Committee. Do not use identifiable participants’ names or initials anywhere in the project report.
- The design and setting of the experiment.
- Number of participants and selection criteria, inclusion and exclusion criteria and details of any randomization if applicable.
- Describe the treatment or intervention.
- Describe the methods for, and success of, any masking (blinding) of observations. Include information on the reliability and validity of the methods used.
- Report any complications.
- Describe methods of assessment.
- The name and location (city and state/country) of the source for any specified equipment, chemicals and other material should be provided in the first instance.
14. Results
This section should report your findings. Avoid commenting on any findings in this section – this should be for your Discussion. Present your results in a logical sequence using text, tables, and figures. Do not present specifics of data more than once and do not duplicate data from tables or figures in the text; emphasize or summarize only important observations. Do not present data from individual subjects except for very compelling reasons. Report any losses to observation (participants who did not complete the study).

15. Discussion
This section should emphasise the important novel aspects of the study and the conclusions that follow from them. Do not repeat in detail data given in the Introduction, Review of Literature or Results. Include the implications of the findings, limitations of the study and relate your observations to other relevant studies. State any new hypotheses, research directions and recommendations warranted by the results and label them clearly as such.

16. Conclusions
Link conclusions with the aims of the study and avoid unqualified statements and conclusions that are not supported by the data. Avoid claiming priority and alluding to work that has not been completed.

17. References
References in the text should be in normal type and in parentheses. The reference list must be complete, in alphabetical order and contain all citations used in the main body of the text. Referencing style must follow that of the American Psychological Association (for details please see Publication Manual of the American Psychological Association, 6th Edition). For basic examples of how to style various citations in the reference list see Appendix E.

18. Appendices
The following items should be included in the appendices:
- A copy of the NTU Institutional Review Board approval letter. Please note that this is mandatory for all projects involving original data collection from humans. The date of the letter must precede the data collection period.
- A copy of the informed consent form for participants.
- A copy of data collection forms or survey instruments.

19. Tables
All tables should be numbered and have a title at the top and inserted in the main text. Tables should be 1.5 spaced. Units should be included where relevant and confined to column headings. Identify statistical measures of variation, such as standard deviation and standard error in the table legend. Abbreviations should be kept to a minimum and defined in the table legend. Footnotes should be used
consecutively from left to right, top to bottom of a table. If tables are taken from other sources, it should be noted in the legend.

20. Figures and diagrams
All figures and diagrams should be numbered and have a legend underneath and inserted in the main text. Figures should be clear and large enough that information can be read easily. Please use 12 point Times New Roman font in the figures. Figures must have axes labels. Information on the axes should be succinct. The label on the y-axis should be read vertically and not horizontally. Key information should be placed in any available white space within the figure; if space is not available the information must be in the figure legend. Figures with multiple parts must be marked A, B, C, etc., with a description of each panel included in the legend.

Lines on graphs should be bold enough to be easily read, as should all symbols. Bars should be black or white only unless more than two datasets is being presented; additional data sets should be drawn with clear bold hatch marks or stripes, not shades of grey.

21. Writing style
Do not use active voice such as ‘we’ or ‘our’ or ‘I’. Use past tense when describing and discussing the experimental work on which the article is based. Reserve present tense for reference to existing knowledge or prevailing concepts and for the discussion and conclusions from the experimental work. Clearly differentiate previous knowledge and new contributions. Do not use level when referring to a concentration.

22. Units
Units, quantities, and formulas should be expressed according to the Système Internationale (SI units).

F. EXPENSES
In order to defray costs incurred in carrying out each final year project, each project has been allocated some funding towards the purchase of consumables required for the project. All acquisitions of materials for the project should be through your supervisor. [NEW] With consent by your supervisor, you should submit an application to the SSM committee asking for the funds being allocated to your project. The following documents must be provided: (i) research topic; (ii) summary of the research; (iii) quotations (including a breakdown by items and its justification); (iv) a declaration that the FYP is not under a research grant already funded by a third party.

The project fund is intended mainly for projects where there is a purchase of consumables. It is not possible to list all the items that will be approved as the requirements are different for each discipline. For example, it is expected that the cost of postage will be reimbursed if required for mailing questionnaires for a survey project. As another example costs of food items will be reimbursed for a study in sports nutrition. Reimbursement of costs for participants will not be approved. Transportation costs for getting to places outside of campus will not be approved.
You are expected to use public transport. Expenses incurred by students for typing, drafting, printing and binding their final reports will not be reimbursed. Neither will the costs of copying technical papers.

You can obtain the reimbursement form personally from the PESS/SSM General Office. The reimbursement form (with supporting receipts), duly endorsed by your supervisor must be submitted to the PESS/SSM General Office no later than 1700 on 07 May 2018. Kindly note that reimbursement will not be provided if the receipts feature a date earlier than the funding approval by the SSM committee.

G. SCHEDULE SUMMARY: ACADEMIC YEAR 2017/2018

<table>
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<th>Date</th>
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<tr>
<td>Topic proposal</td>
<td>17 February 2017</td>
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<tr>
<td>[NEW] Apply to IRB</td>
<td>30 of June 2017</td>
</tr>
<tr>
<td>Data collection (with IRB approval only)</td>
<td>11 December 2017 onwards</td>
</tr>
<tr>
<td>Poster presentation and submission</td>
<td>04 April 2018</td>
</tr>
<tr>
<td>Lau Teng Chuan Physical Education and Sports Science Symposium</td>
<td>06 April 2018 (tentative)</td>
</tr>
<tr>
<td>Final report submission</td>
<td>11 April 2018</td>
</tr>
<tr>
<td>Expenses reimbursement submission</td>
<td>07 May 2018</td>
</tr>
</tbody>
</table>
Title Of Poster (Arial font size 60, bold)

List of Authors (Arial font size 40, bold)
Sport Science and Management, Nanyang Technological University, Singapore

YOUR FINAL YEAR PROJECT TITLE

by

Students’s name

Sport Science and Management
Nanyang Technological University

A final year report submitted to Nanyang Technological University in partial fulfilment of the requirements for the degree of Bachelor of Science.

YEAR
Appendix C – Sample statement of originality

STATEMENT OF ORIGINALITY

I have read and understood the guidelines on academic dishonesty as found at and the penalties for academic integrity (http://academicintegrity.ntu.edu.sg/a-guide-to-academic-integrity/) and declare that this assignment is my own work and does not involve plagiarism or collusion according to the University’s honour code and pledge (http://www.ntu.edu.sg/home/yclai/). The sources of other people’s work have been appropriately referenced. I have also not submitted any part of this assignment for another course.

.......................................... (Signed)

.......................................... (Date)
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<td>Acknowledgements</td>
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<td>iii</td>
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<td>List of tables</td>
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<td>List of figures</td>
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<td>List of abbreviations</td>
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| Chapter 1 - Introduction     |      |
| 1.1 Background               | 1    |
| 1.2 Purpose and rationale    | 2    |
| 1.3 Aims                     | 4    |
| 1.4 Hypotheses               | 6    |

| Chapter 2 - Review of Literature | X   |
| 2.1                              | X   |
| 2.2                              | X   |

| Chapter 3 - Method            | X   |
| 3.1                            | X   |
| 3.2                            | X   |

| Chapter 4 - Results           | X   |
| 4.1                            | X   |
| 4.2                            | X   |

| Chapter 5 - Discussion and Conclusions | X   |
| 5.1 Discussion                  | X   |
| 5.2 Conclusions                 | X   |
| 5.3 Future studies              | X   |

| References                     | X   |

| Appendices                     |     |
Appendix E – Examples of referencing style


In the text
Reference citations in the text are done using parenthetical referencing. This involves enclosing the author’s surname and the date of publication within parentheses, separated by a comma, immediately after the reference or at the end of the sentence in which the reference is made:

- One study found that after performing equivalent volumes of aerobic exercise over a 10-week period weight loss was greater in men than women (Doe, 2010).

Authors should be cited in the order that they appear in a published article (e.g. Doe & James, 2010). With two authors, cite names every time the reference occurs in the text. With three to five authors, the first reference to the article must include all authors; subsequent citations of the same article may refer to the principal author only plus et al. (e.g. Doe et al., 2010). For six or more authors the correct order in the text in all instances is author name, et al., followed by year (Doe et al., 2010).

Reference list
The reference section at the end of the main body of text should include all references cited in alphabetical order within the body of your project. Do not include references which you may have read but do not refer to. In the reference list any article with less than eight authors must include all in the authors in the citation. For eight or more authors list the first six, put an ellipsis (three periods) and then list the last author. Some examples to cite various types of work:

1. Books:
   Author, A.A. (year). Title of work. Location. Publisher.


2. Articles in journals/periodicals: