Subject Description Form

<table>
<tr><td>Subject Code</td><td>APSS3244</td></tr>
<tr><td>Subject Title</td><td>Social Data Analytics</td></tr>
<tr><td>Credit Value</td><td>3</td></tr>
<tr><td>Level</td><td>3</td></tr>
<tr><td>Pre-requisite/
Co-requisite/
Exclusion</td><td>NIL</td></tr>
<tr><td>Assessment Methods</td><td>
<table>
<tr><th>100% Continuous Assessment</th><th>Individual Assessment</th><th>Group Assessment</th></tr>
<tr><td>1. Written assignment</td><td>35%</td><td>--</td></tr>
<tr><td>2. Presentation & report</td><td>--</td><td>35%</td></tr>
<tr><td>3. In-class exercise & participation</td><td>30%</td><td>--</td></tr>
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The grade is calculated according to the percentage assigned;
The completion and submission of all component assignments are required for passing the subject; and
Student must pass all component(s) (standard of passing) if he/she is to pass the subject.

</td></tr>
<tr><td>Objectives</td><td>This subject aims to enable students to :
Enhance students' proficiency in:
(i) basic Python programming skills;
(ii) collect, analyze and visualize digital data;
(iii) create digital data reports.</td></tr>
<tr><td>Intended Learning Outcomes</td><td>Upon completion of the subject, students are able to:
<ol type="a">
Comprehend the fundamental techniques of social data analytics;
Possess the ability to locate and collect information from various digital media sources;
Exhibit proficiency in text mining;
Interpret, illustrate, and visualize social data effectively;
Apply social data analytics techniques to produce comprehensive digital data reports.

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<table>
<tr><td>Subject Synopsis/ Indicative Syllabus</td><td>1. Basic Python
3. Data mining
4. Text mining
5. Data visualization
6. Digital storytelling</td></tr>
<tr><td>Teaching/Learning Methodology</td><td>Lectures are employed to facilitate students' learning of the subject. The lectures introduce students to the major concepts and theories. The instructors also demonstrate the applications of data mining and text mining. Students are encouraged to discuss and analyze various social issues with reference to those concepts and skills they have acquired.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="5">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td></tr>
<tr><td>1. Written assignment</td><td>35%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>2. Presentation & report</td><td>35%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>3. In-class exercise & participation</td><td>30%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Total</td><td>100%</td><td colspan="3"></td><td></td><td></td></tr>
</table>

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

<u>Group project & presentation</u>:

Students will be assigned to groups for presentations. They are required to apply the big data techniques taught in the course.

<u>Individual written assignment</u>:

Students are required to submit a written assignment after their project presentation.

<u>In-class exercise and participation</u>:

This course adopts a practical approach to learning, featuring 9 in-class hands-on sessions. Each hands-on session will encompass a range of in-class exercises focusing on Python programming, web data collection, text mining, and data visualization. Students will be urged to actively participate, collaborate with classmates, and engage with the instructor.</td></tr>
<tr><td rowspan="2"></td><td>Class contact:</td><td></td></tr>
<tr><td>▪ Lecture and project presentation</td><td>39 Hrs.</td></tr>
</table>

Student Study Effort Required	Other student study effort:	
	▪ Self-studies (including preparation for seminars, writing term paper, revision and preparation for the quiz)	65 Hrs.
	Total student study effort	104 Hrs.
Reading List and References	**<u>Essential</u>** Gelman, A., & Hill, J. (2006). *Data analysis using regression and multilevel/hierarchical models*. Cambridge; New York: Cambridge university press. James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An introduction to statistical learning* (Vol. 112). New York: Springer. Wickham, H. (2016). *ggplot2: elegant graphics for data analysis (2nd ed.)*. Cham, Switzerland: Springer. **<u>Supplementary</u>** Angrist, J. D. and Pischke, J. S. (2008). *Mostly harmless econometrics: An empiricist's companion*. Princeton: Princeton university press. Silge, J. and Robinson, D. (2017). *Text mining with R: A tidy approach*. CA: O'Reilly Media. Salganik, M. J. (2018). *Bit by Bit: Social Research in the Digital Age*. Princeton, New Jersey: Princeton University Press. Morgan, S. L., & Winship, C. (2014). *Counterfactuals and causal inference: Methods and principles in social research*. NY: Cambridge University Press. VanderWeele, T. (2015). *Explanation in causal inference: methods for mediation and interaction*. NY: Oxford University Press.	