Inaugural Student Cohort: Academic Year 2021/2022

Inaugural Intake: Some 330 undergraduate students

Degree Programmes: Typical 4-year Direct Honours Degree
- Single Degrees awarded will be in accordance with the student’s major
- 5 Bachelor’s degree programmes (Note: the new curriculum does not apply to Bachelor’s degree in Real Estate)
- Double Degrees will be awarded to students who have completed major requirements of two different degree types (e.g. BA & BEng, BLA & BEng).
- Concurrent Degree Programme, a 5-year programme [applicable to BA(ARCH)-Master of Architecture, and BA(ARCH) and Master of Urban Planning pathways]

Overall Curriculum of SDE Major:

The SDE Major requirements will comprise the equivalent of 15 modules, or 37.5% of the degree requirements

Two Key Features:

(1) New Common Curriculum:
The new Common Curriculum comprises the equivalent of 15 modules, or 37.5% of the degree requirements. It incorporates the six NUS General Education pillars and is designed to impart essential 21st century skills and competencies to all of our students.

6 General Education Pillars
- Singapore Studies
- Cultures and Connections
- Critique and Expression
- Communities and Engagement
- Digital Literacy
- Data Literacy
7 Common Pillars

- Design Thinking
- Maker Space
- Systems Thinking
- Artificial Intelligence
- Creating Narratives
- Project Management
- Sustainable Futures

1 Integrated Project
- Equivalent to two modules

(2) New Flexible Structure:
- The remaining 25% of the overall curriculum will be in the form of Unrestricted Electives, whereby students can choose what they would like to take.

- Students taking any SDE major will be free to pursue any second major or open minor across NUS. They will also be free to choose any specialisation accessible from their major.

- Students can take a second major or up to two minors or specialisations within the curriculum space, without the need to increase their workload or extend their candidature

- Examples of exciting educational pathways:

<table>
<thead>
<tr>
<th>Major in Architecture and a Second Major in Innovation &amp; Design offered by Faculty of Engineering (FOE)</th>
<th>Architecture students who are not proceeding to the M.Arch/MLA concurrent degree programme could apply to pursue a Second Major in Innovation &amp; Design offered by FOE. Through this Second Major, students are able to hone their entrepreneurial skills and at the same time integrate their architectural design skills to solve problems or create new products, services, and experiences in healthcare, urban mobility, sustainable cities, smart living, or intelligent systems etc.</th>
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<tbody>
<tr>
<td>Major in Architecture and Minor in Project Management</td>
<td>This combination will enable Architecture students to manage the end-to-end process of a building project efficiently, with a prudent consideration of budget, time and manpower resources deployment. Such expertise will allow students to venture beyond the traditional roles and embark on careers that require interaction with builders, developers and facilities managers.</td>
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<tr>
<td>Major in Industrial Design and Minor in Architectural Studies</td>
<td>This combination will enable Industrial Design students to integrate design from the scale of product design to that of architecture. With the boundaries of objects and space overlapping increasingly in meaningful experiences, such expertise will allow Industrial Design students to extend their role of being experts in the innovation of products and services to encompass the spatial and urban context.</td>
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<tr>
<td>Major in Project and Facilities Management and Minor in Architectural Studies</td>
<td>This combination enables Project and Facilities Management students to better appreciate the value of design and integration. This will allow them to exercise better quality control and ensure timely project deliverables without compromising design intentions.</td>
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Architecture students who wish to pursue an accredited professional pathway related to Architecture/Urban Planning/Sustainable Environment can read more specialised modules using the unrestricted elective space. Thereafter, the students can progress to concurrent Master’s degree programmes in the following specialised fields:
- Architecture
- Urban Planning

**Before and After: Summary of Key Changes**

<table>
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<tr>
<th>AY 2020/2021 and before</th>
<th>AY2021/2022 and after</th>
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<tbody>
<tr>
<td>General Education requirements comprise 12.5% of the overall curriculum</td>
<td>New Common Curriculum requirements will comprise 37.5% of the overall curriculum, incorporating newly revamped General Education offerings</td>
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<td>Programme requirements usually comprise 67.5% or more of the curriculum. They are usually more specialised towards the particular Major discipline.</td>
<td>Major requirements will form 37.5% of the curriculum</td>
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<td>However, Major requirements are not affected because some of the Major modules content is integrated into the common curriculum to make them more interdisciplinary and suited for the current and future needs.</td>
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<td>Curriculum structure does not readily allow second majors, or minor/specialisation combinations</td>
<td>Curriculum structure comfortably accommodates a wide range of second majors, minors and specialisations.</td>
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<td>The added flexibility also creates space for students to undertake a variety of</td>
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enhancement programmes (e.g. overseas and entrepreneurship opportunities)

Note: Current students from cohorts AY2020/2021 and before will not be impacted by the new curriculum structure. They will continue to fulfil the curriculum and graduation requirements in place at the point of their admission.

Approach to Learning:
SDE will invigorate student learning experiences with new pedagogies focusing on problem-based and competency-based learning, as well as technology-enhanced collaboration and integrated approaches in learning. The aim is to cultivate creative and interdisciplinary thinking among students as well as the adoption of advanced technologies. This multi-faceted education will better prepare students to tackle complex challenges and interrelated issues of our world, improve their market relevancy thereby enhancing their career mobility, and enhance their future-readiness.

These objectives are further complemented by internships, fieldwork, capstone and collaborative projects between FOE and SDE to help students experience more multi-level and multi-modal learning. In addition, with greater choices in content diversity, students can establish different pathways based on their interest and scale alternative peaks of excellence in their studies to fulfil their respective personal or professional aspirations.

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