

## **ANNEX A**

### **NEW UNDERGRADUATE OFFERINGS FOR ACADEMIC YEAR 2019/2020**

#### **New SkillsFuture Work-Study Degree Programmes**

Students from Bachelor programmes in Materials Engineering, Mechanical Engineering (Design), Data Science and Artificial Intelligence, and Maritime Studies who prefer on-the-job training will be able to opt for a new work-study track. This track is only available to students on single-degree programmes.

Students should declare their interest by the end of Year 2 Semester 1. On this track, students have to complete three internships totalling 40 weeks. They will also complete an industry-sponsored final year project (FYP) which allows students to apply what they have learnt to the real-world context, and find solutions to practical problems.

Students pursuing a Bachelor's degree in Business (Business Analytics) or a double degree in Accountancy and Business can also choose to take up this work-study track by completing three mandatory internships totalling 36 weeks. On this track, students complete three internships totalling 36 weeks.

Those pursuing the double degree can choose to do two more internships, totalling 18 weeks in Year 3 and Year 4.

With the introduction of work-study tracks for six of its degree programmes, **NTU now has seven SkillsFuture Work-Study Degree Programmes**. These work-study tracks allow students to acquire deep technical and essential generic skills, which will facilitate the students' transition from the universities to the workplace after graduation.

The programmes achieve this by featuring curricula that closely integrate institution-based learning with structured on-the-job training, and by partnering companies on the development and delivery of the respective programmes, and assessing students' performance at the workplace.

#### **Minor in Youth Work and Guidance**

The new Minor in Youth Work and Guidance, offered by the National Institute of Education, is open to students in the Bachelor programmes in Arts (Education) and Science (Education), as well as NTU undergraduates from other disciplines.

Courses under the Minor programme cover developmental issues and psychological disorders observed in youth, and strategies to identify and manage them. Students will also be equipped with group counselling skills, which is suitable for children and adolescents in school or educational settings.

## **Six new engineering specialisations**

### Data Intelligence & Processing specialisation

In the new academic year, the new Data Intelligence & Processing specialisation will replace the Digital Media Processing specialisation offered by the NTU School of Electrical and Electronic Engineering (EEE). This new specialisation is available to EEE students and those pursuing a double degree programme in EEE and Economics, second majors in Business or Society and Urban Systems, or those in the University Scholar and CN Yang Scholars programmes.

Currently, EEE students are required to declare an option group in their final year, and take electives only from the option group they have selected. With this new specialisation, students can take courses across different option groups to provide a more holistic basket of courses.

### Smart Manufacturing and Digital Factory specialisation

The new Smart Manufacturing and Digital Factory specialisation is available to students from Bachelor programmes in Mechanical Engineering and Aerospace engineering, and those pursuing double degrees in Mechanical Engineering/ Aerospace Engineering and Economics. It is introduced in line with the NTU Smart Campus vision to equip its students with digital literacy.

### New Chemical and Biomedical Engineering specialisations

The four new specialisations introduced under the School of Chemical and Biomedical Engineering (SCBE) are aimed at value-adding the degrees of the students by providing knowledge in emerging industry areas in Singapore such as the bioengineering and biomedical sectors.

The Intellectual Property for Chemical and Biomolecular Engineering specialisation is only available to students enrolled in the Bachelor of Engineering (Chemical and Biomolecular Engineering) programme, while the Intellectual Property for Bioengineering specialisation is only available to Bachelor of Engineering (Bioengineering) students.