

IMPORTANT NOTE

Before applying for any summer/winter programme, read the [GRO website](#) and [i-SP Application Guide](#) for important information on:

- General Eligibility Requirements and Application Process
- Module Mapping and Financial Aid
- Visa Application, Travel Advisories and Student Insurance

Technical University of Berlin: Summer Uni On-Campus 2023

Information is accurate as of 20 January 2023. Due to the evolving COVID-19 situation, please check the official host university website for the most updated information before applying for the programme

Host University Website	https://www.tu.berlin/international/summer-school
Programme Location	Berlin, Germany
Programme Dates	Only programmes that fall within the vacation period of the NUS calendar tend to be endorsed by NUS. Term I: 3 July to 14 July 2023 (2 weeks) Term II: 17 July to 11 August 2023 (4 weeks)
Application Deadline	Term I: 5 June 2023 Term II: 19 June 2023 Early Bird discount: 1 March 2023 Please note that there is a maximum number of slots available per course. Refer to their website to find the number of slots: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus by clicking on the various courses.

ESTIMATED COST OF PARTICIPATION

1	Programme Fee	Summer Course Fees	
		Course Type	Cost (Euro)
		Standard 4-week course	1,950.00
		Special 4-week course*	2,300.00
		Standard 2-week course	950.00
		Language courses:	
		2-week German language course	610.00
		*CabSat Satellite Design	

		Kindly refer to the course listed at https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus for the summer course fees.														
2	Projected Expenditure	<table border="1"> <thead> <tr> <th>Breakdown of Costs</th> <th>Estimated Cost</th> </tr> </thead> <tbody> <tr> <td>Programme Fee</td> <td>€ 950 to € 2,300</td> </tr> <tr> <td>Accommodation at Aletto Kudamm Hardenbergstr. 21, 10623 Berlin All offered rooms are shared twin rooms and are offered for either 2 weeks or 4 weeks For full accommodation details, click here. You are free to organize your own accommodation at your own cost.</td> <td>€ 882 to € 1,764</td> </tr> <tr> <td>Administration and Registration</td> <td>€ 60 (non-refundable)</td> </tr> <tr> <td>Others (Entertainment)</td> <td>€ 200 to € 400</td> </tr> <tr> <td>Total</td> <td>€ 2,092 to € 4,524 (approx. S\$ 2,999 to S\$ 6,485)</td> </tr> <tr> <td>Daily Expenses</td> <td>Click here</td> </tr> </tbody> </table> <p>Please take note that there will be additional fees for the visa (if applicable), flight, food and your leisure activity in Berlin.</p>	Breakdown of Costs	Estimated Cost	Programme Fee	€ 950 to € 2,300	Accommodation at Aletto Kudamm Hardenbergstr. 21, 10623 Berlin All offered rooms are shared twin rooms and are offered for either 2 weeks or 4 weeks For full accommodation details, click here . You are free to organize your own accommodation at your own cost.	€ 882 to € 1,764	Administration and Registration	€ 60 (non-refundable)	Others (Entertainment)	€ 200 to € 400	Total	€ 2,092 to € 4,524 (approx. S\$ 2,999 to S\$ 6,485)	Daily Expenses	Click here
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4	Financial Aid Available Through NUS GRO	<p>Financial aid will not be available for programmes/classes that are conducted fully online. If a programme is offered in hybrid mode, only on-site participation would qualify a student for financial aid. If a physical/on-site programme switches to fully online before the commencement of the programme NUS reserves the right to adjust or retract the financial aid package.</p> <p>You should have enough monetary funds to last you throughout the whole i-SP. Your decision to go on i-SP should not be dependent upon the confirmation of a scholarship or bursary award. You can consider the following financial aid options to fund your i-SP:</p> <p>For Singaporeans only:</p> <ul style="list-style-type: none"> • NASA Enhancement Bursary • Overseas Student Programme Loan • PSEA Ad-Hoc Withdrawal <p>Please note that if you are successful for any financial aid, the funds will only be disbursed to you after completion of the Programme.</p>														

PROGRAMME DETAILS		
4	Academic Content	Term I (3 to 14 July 2023) – 2 weeks

		<p><u>Modern Cloud-Project with Java</u></p> <p>Each group will develop an Web-Application that runs in the cloud. Project teams will touch the whole development life-cycle, answering the questions:</p> <ul style="list-style-type: none"> • What do we want to create? • How do we work together in a team? • What tools do we need? • What will the architecture of the application be? • Where will our application be running? <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/modern-cloud-project-with-java</p> <p><u>Start German</u></p> <p>Although Berlin is an international city, you will find it much easier to understand your surroundings and enjoy the city if you have acquired some basics in German. German is still an important language for business, science, and the arts, and is the most widely spoken language in Europe - plus, it's easy to learn for English-speaking students.</p> <p>Our German language course addresses the needs of beginners. The content of the course follows the standards of the Common European Framework of Reference for Languages (CEFR) for level A1.1 (beginners with no prior knowledge).</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/start-german</p> <p><u>Modelling Smart Transportation Systems</u></p> <p>Cities around the world face rapid changes in their transportation systems with the advances in ICTs. Recent trends include on-demand and shared mobility modes and automation in public and private transportation systems; these new solutions impact the transport industry, infrastructure management as well as political agenda. Focusing on Intelligent Transportation Systems (ITS), a new “Smart Mobility” system and real-time network management have been developed as potential solutions to mitigate congestion issues and improve network efficiency.</p> <p>This course offers theoretical and practical learning materials for transportation modelling and simulation techniques, with a focus on Smart Mobility and ITS solutions and real-world applications.</p> <p>This course reviews the most well-known mobility behaviour simulation models, demand forecasting methods, business, social and political issues and related analytical techniques.</p>
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	<p>After a general overview of sustainable and smart transportation (including business models, and technical and urban design aspects), the course will allow participants to get innovative methods so to model Smart cities' current and future solutions.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/modeling-smart-transportation-systems</p> <p><u>Engineering Innovation</u> Engineering Innovation introduces students to the concepts of innovative thinking and innovation practices. Using lectures, case studies, team exercises and guest speakers, the course teaches life skills in innovative thought and action that students can use in careers ranging from starting companies to executing research and development projects in large companies.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/engineering-innovation</p> <p>Term II (17 July to 11 August 2023) – 4 weeks</p> <p><u>Gaming for Virtual and Augmented Reality</u> The course addresses the following topics:</p> <ul style="list-style-type: none"> • What are extended, augmented, virtual, and mixed reality? • What tools are used to develop MR applications and how can they be set up? • Deployment of the app on the phones/tablets of the participants (depending on device capabilities). • Introduction to programming for extended reality with Unity (scene setup, interactions). • What is User Experience (UX), and what is UX design? • UX Design and important influencing factors (human/context/system). • What is user testing, why is it needed, and what method can be used for testing? • Perform a usability test and use the gathered result during the development <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/gaming-for-virtual-and-augmented-reality-1</p> <p><u>Business Data Science with Python</u> The course of Business Data Science with Python contains the learning materials, practices and case studies to develop the knowledge and skills of the students in the field of data science and its application in the real business/work world.</p> <p>The students will learn how to apply analytical techniques and scientific</p>
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		<p>principles to extract valuable information from business data for decision-making, and strategic planning.</p> <p>This course covers practical contents of statistics, machine learning, information visualization, and data analysis techniques through python programming language and other tools.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/business-data-science-with-python</p> <p><u>Blue Science – Social and Ecological Responsibility</u> Blue Science is a module that allows students to experience interactive university teaching and learning by dealing with their social and ecological responsibility in concrete and active ways. It came up as a transdisciplinary extension of the seminar Blue Engineering, which has been offered for over 10 years, promoting socially and ecologically responsible engineering through a variety of alternative teaching methods. Blue Science is open to students of all areas and backgrounds with an interest in technology. / Science and its relation to technology, individuals, nature and society are reflected, analyzed and questioned in interdisciplinary discussions facilitated through diverse methods. Students are encouraged to think and learn independently and creatively, and therefore teacher-centred instruction does not occur in this module. Students acquire the competence to unveil the complex interdependency of their social, political, ecological and economic surroundings. This includes the consideration of different values, interests and needs within a global perspective as well as within one class(room). The course design encourages democratic decision-making not only to solve but also to define problems within the course itself and moreover outside of the classroom. / By developing and carrying out their own teaching units, students are actively involved in the teaching process and co-create the course. This allows students to bring in their own areas of interest and to share their findings and points of view with others, creating learning material that may be used in future editions of the module.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/blue-science-social-and-ecological-responsibility-across-disciplines</p> <p><u>CanSat Satellite Design</u> A CanSat is a small satellite in the shape of a commercial beverage can that performs several measuring tasks. In this course, a CanSat is designed, built and tested in the field during a rocket launch. Therefore, all basics of topics related to an exciting area of space technologies are imparted and practical skills for the development of a CanSat are trained. The theoretical units are supplemented by practical exercises. Parts of the CanSat are developed in intensely supervised small groups. During an excursion to a site in Berlin where space-related companies and institutions are located, the participants shall gain insight into facilities used for the development of satellites.</p>
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		<p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/cansat-hands-on-satellite-design</p> <p><u>Java Programming</u> Java's unique architecture enables programmers to develop a single application that can run across multiple platforms seamlessly and reliably. In this course, students gain extensive experience with Java and its object-oriented features. Students learn to create robust console and GUI applications.</p> <p>This course introduces computer programming using the Java programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, and classes, and using object-oriented tools such as the class debugger.</p> <p>The course will include over 500 examples and will conclude with several case studies. There will be some assignments which will give the students more understanding of the programming concepts.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/java-programing</p> <p><u>Engineering Entrepreneurship</u> Engineering Entrepreneurship introduces engineering students to the concepts and practices of technological entrepreneurial thinking and entrepreneurship. Using lectures, case studies, business plans, and student presentations, the course teaches life skills in entrepreneurial thought and action that students can utilize in starting technology companies or executing R&D projects in large companies.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/engineering-entrepreneurship</p> <p><u>Startup Crash Course</u> In the Startup Crash Course, you will learn how to develop a start-up idea into a successful business model and how to win a startup pitch. As of today, 99% of new businesses fail. We, the creators of this course, think that the main reasons are some myths around the startup scene, which lead to wrong expectations and crippled instruments. The main goal of this course is to increase the success rate of startups. The course offers knowledge on how to start a company and push it to success.</p> <p>It will have three main parts: the structured approach, hands-on experimentation and feedback. The structured approach is given through lectures and case studies, which serve as a compass. The hands-on experiment consists of individual and group work that makes you try all the new concepts and implement them in your business idea. Feedback comes from interaction with</p>
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		<p>successful entrepreneurs and startup scene players.</p> <p>Those who develop a high-quality business model may be put in contact with Berlin startup supporters.</p> <p>Please see here for more information: https://www.tu.berlin/international/summer-school/summer-school/summer-school-on-campus/startup-crash-course</p>
5	Eligibility Requirements	<p>The Summer Programme is designed for undergraduate students with any kind of academic background.</p> <p>NUS' generic eligibility requirements apply, please see the GRO website for details.</p>
6	Accommodation	<p>Accommodation in Berlin can be found here.</p>
7	Application Procedure at NUS	<p>Apply via the NUS Education Records System (EduRec - GE) first if you want to do module mapping and apply for financial aid/loans. Applying through EduRec-GE will allow GRO to contact and assist you in times of crisis/emergency while you are overseas.</p> <p>With an official application through EduRec-GE, you are covered by the NUS Travel Blanket Insurance. Besides, GRO can also provide you with supporting letters for visa application. Read the step-by-step guide which we have prepared for you on GRO's web.</p> <p>You should also apply to the host university concurrently once you have submitted an application to NUS EduRec.</p>
8	Application Procedure at Host University	<p>Application link: https://apply.tubsummeruniversity.de/</p>
9	Confirmation of participation	<p>You will be informed by the host via email about possible financial support together with the information on your acceptance or rejection. Please request from FUB a letter of confirmation for your German visa application (if needed).</p> <p>You have to accept EduRec-GE offer as well as the host university offer to confirm your participation in this programme.</p> <p>Please read the cancellation policy of this programme before accepting and paying for the programme.</p>

10	Module Mapping	<p>All mapping requests are subjected to approval by the Faculties/Departments.</p> <p>Click here for a step-by-step guide on applying for module mapping. Students may contact the SEP administrators/coordinators at their respective home Faculty/School Dean's Office or the academic department for module mapping. NUS Business School will not consider summer programme of less than 3 weeks duration to be credit bearing.</p> <p>If you are interested in obtaining credits, you can start the module mapping process after you have accepted the offer for the programme via EduRec-GE.</p> <p>Students may map up to a maximum of 10 MCs for each Summer Programme. Over the course of study in NUS, students may map up to a total of 12 MCs for involvement in summer programme. Beyond 12MCs, NUS Special Term tuition fees will apply, in addition to Summer/Winter Programme fees paid to the host university. For details, please read the information on Registrar's Office website.</p>
11	Transcript	<p>Please provide a valid, personal mailing address in the online registration portal so that the host can send your transcript to you after the summer programme.</p> <p>Please do not request for your transcript to be mailed to NUS Global Relations Office (GRO). GRO is not responsible for missing transcripts.</p>

ADDITIONAL INFORMATION		
12	Visa Application	<p>Singaporeans do not need an entry visa to Germany if they are not staying for more than 90 days in Schengen countries in a 6-month period.</p> <p>If you need a visa to enter Germany, please start early as your visa application may take up to 2 months.</p>
13	Travel Advisories	<p>Visit the MFA website for travel advisories on various countries from the Singapore government.</p>
14	Student Insurance	<p>NUS will continue to offer NUS Travel Insurance for approved study abroad programmes including International Summer Programmes (i-SP).</p> <p>For more information on:</p> <ul style="list-style-type: none"> - NUS Student Travel Insurance Cover, click here - COVID-19-related coverage under the NUS Student Insurance Scheme, click here <p>Students are responsible for ensuring that they have sufficient travel insurance coverage for the entire duration of their trip (inclusive of travel) and are advised to review the insurance coverage/policy to ensure that they meet their needs. Students may purchase additional health and/or travel insurance from their preferred agent.</p>

15	Contact Information	Questions about the programme? Contact the host university at: summeruniversity@tubs.de Questions specific to NUS GRO? Contact us at: global@nus.edu.sg
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