Program Highlights

We have a highly selective program taught entirely in English that attracts gifted students from all over the world. We prepare our students to enter a research lab already half-way through Year 3, so the courses are very demanding, especially in Year 3. These later courses are meant to stretch the most talented students who have the ambition to continue into theoretical particle physics or condensed matter physics, but also astrophysics, cosmology, computational physics, plasma physics (fusion research), or biophysics. We also have excellent experimental labs that are looking for students who not only can master the theory but also have the practical imagination to test the theories and challenge accepted physics. The courses require abstract thinking and a lot of problem-solving, as well as resilience and perseverance. To be successful, you need to have a wholehearted commitment to physics.

Does This Program Suit You?

- Students with a wholehearted commitment to physics.
- Students who are excited and seriously committed to mastering not only solution techniques but also the physical meaning of what they are doing.
- Those who have the practical imagination to test the theories learned but also willing to challenge accepted physics.

NAGOYA UNIVERSITY GLOBAL30 INTERNATIONAL PROGRAMS

We are one of the few universities in Japan offering a wide array of programs fully taught in English for the full 4 years of undergraduate education. 10 programs in total are offered under the umbrella of the G30 International Programs, ranging from various STEM programs to Social Sciences and Humanities. We welcome students with a passion for innovation and research!



Good career prospects Point5

帰国子女OK Point6

- Find out more about the programs: https://admissions.g30.nagoya-u.ac.jp/ Stay connected with us through: Agoya University International Programs
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- 💿 nagoya_univ_g30





#NUG30

#NagoyaUniversity



Physics

School of Science

Degree Awarded:

Bachelor of Science

Concentration in Physics

Program

Start Early October

NAGOYA UNIVERSITY



Why study physics at Nagoya University?

The Physics program offered by the School of Science, Department of Physics is a program where we are searching for students with a love of maths and a passion for physics. Available to students are excellent research labs working at the cutting edge of physics, providing ample opportunities for research at the undergraduate (Year 3/4), Masters and PhD levels. Our G30 Physics classes are small (5-15 students), and tutorials are run by professors of theoretical physics. To enjoy studying physics, you should have an ambition to do research at the forefront of physics. Nonetheless, you never know where your life path will lead you: some of our graduates end up in exciting jobs in industry where their analytical skills acquired during their studies here are put to good use.

Your Future Career

Nearly all of our graduates continue to graduate school, either at Nagoya University or leading universities overseas. After completing a Master's degree, most pursue a PhD in Physics. If pursuing a career in academia is not your fit, don't worry! In Physics, you will learn transferable skills applicable to a broad range of "real world" applications. This allows graduates to find jobs in a broad range of industries. Amidst today's rapid pace of technological advancement, with a higher degree in physics, the world is your oyster.

Curriculum

1st _{year}	Japanese Language, Liberal Arts & Basic Courses	
	Take foundational courses to ease into life at Nagoya University	
	Calculus I/II Fundamentals of Physics I/II/III Linear Algebra I/II Fundamental Courses in Natural Sciences	
	Basic Specialized Courses	
2nd _{year}	Start building your physics foundation by taking basic courses	
	 Mathematical Physics I/II + Tutorial Statistical Physics I (Thermodynamics) Quantum Mechanics I Physics Tutorial 2a/2b/2c Electricity and Magnetism Physics Tutorial 1 	
3rd _{year}	Specialized Courses & Laboratories	
	Start deciding on your specialization through specialized elective courses:	
	CORE COURSES: • Quantum Mechanics II/III • Condensed Matter Physics I/II * Physics Tutorial 3a/3b/4a/4b * Specialized Elective Courses * Physics Laboratory	
	Research and Thesis	
4 th year	Complete your research on your chosen specialization/field:	
	Graduation Research - Theoretical Studies Graduation Research - Experiments	

* Note: This curriculum outline serves to show a snapshot of what the program has to offer and does not list all graduation requirements. Please refer to the program's Graduation Requirements found on the admissions website.



What sparked your interest in the G30 Physics program?

I was interested in the G30 Physics program because I knew that there were four Nobel Laureates in Physics from Nagoya University. In particular, I was really interested in Makoto Kobayashi and Toshihide Maskawa's research. Currently, I am researching quantum gravity which is a relatively similar research field as Kobayashi-sensei and Maskawa-sensei. That said, I want to pursue my further studies in the United States as the country is currently the epicenter of Quantum Gravity research.

Timetable

3rd Year Fall Timetable Sample



Research Opportunities Available to Students

Superconductivity; Spintronics; Solid state physics; Nonequilibrium physics; Fusion and plasma physics; Elementary particle physics; Quantum gravity; Hadron physics; Astronomy; Astrophysics; Cosmology; Functional materials for recovering waste energy; and Biophysics

What courses did you take in high school?

I didn't take any international curriculum back in my country but mainly I took all the sciences subject such as:



1 DAY SCHEDULE

What does a day look like in your 4th year?

