

Kyoto University  
Graduate School of Energy Science

# International Energy Science Course Masters Program

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## K.U.PROFILE

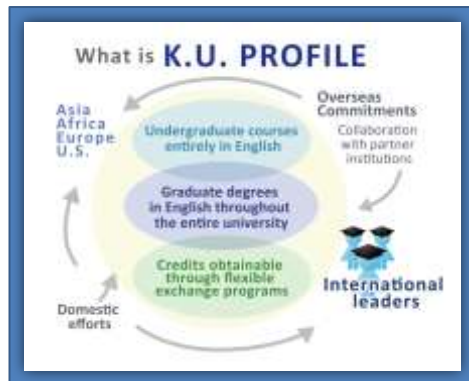
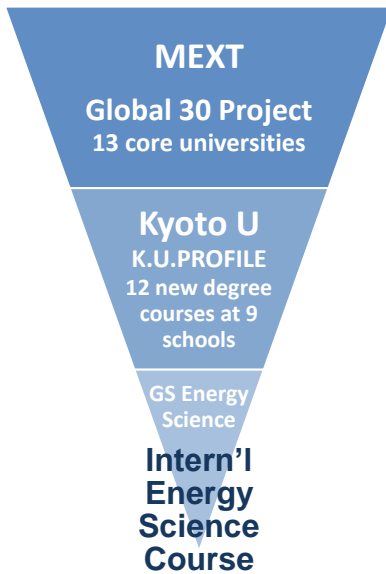
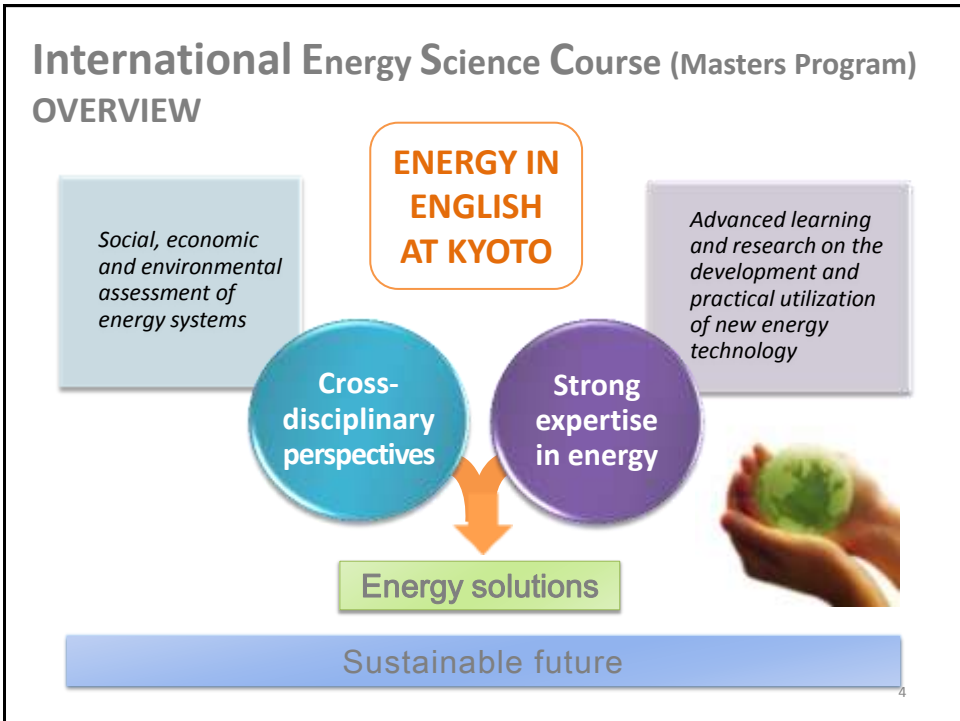
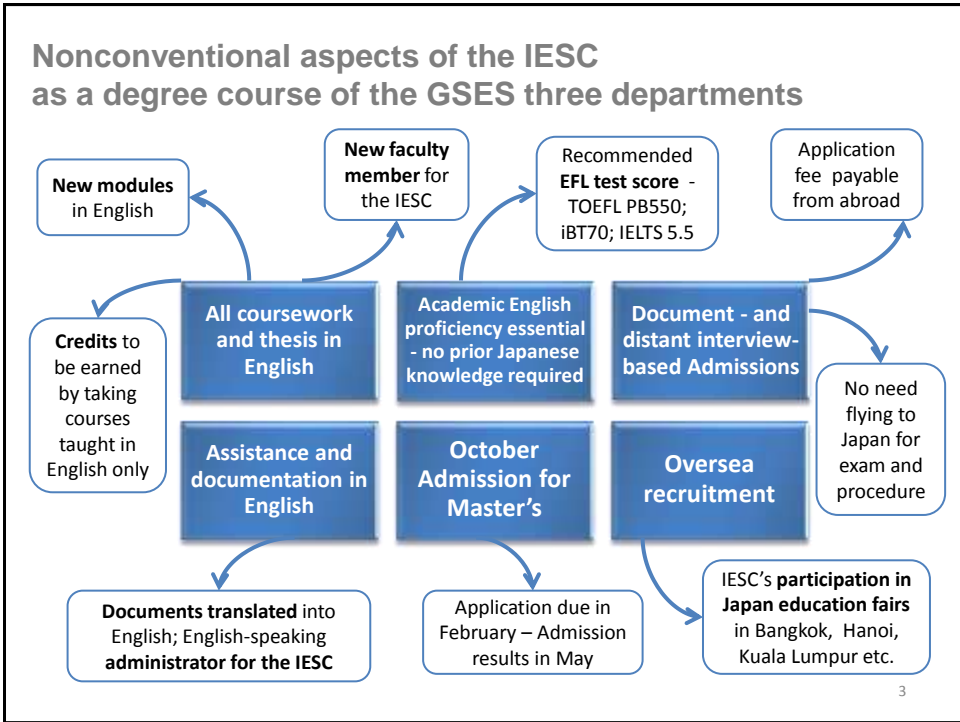


Table1\*

\*Source: K.U.PROFILE Presentation program (internal only)  
[http://www.opir.kyoto-u.ac.jp/kuprofile/gakunai/ppt\\_data.html](http://www.opir.kyoto-u.ac.jp/kuprofile/gakunai/ppt_data.html)



### Three departments for the IESC

#### SES – Socio-Environmental Energy Science

- Research on the effective use of energy and resources and analysis of energy systems in order to build a sustainable social system within the global environment

#### FES – Fundamental Energy Science

- Fundamental science education and research to contribute to cleaner energy solutions

#### ECS – Energy Conversion Science

- Education and research on generation, conversion, control and the utilization of various kinds of energy to establish efficient and clean energy systems

Source: IESC brochure

Topic area	Departments and Research Groups		
	SES	FES	ECS
Energy conversion science			Thermal engineering Power engineering Combustion engineering
Nuclear Fission	Energy policy	Reactor physics Nuclear design	
Plasma and Nuclear Fusion		Plasma physics Fusion science Plasma control	Plasma physics Fusion technology Microwave technology
Socio-economic analysis	Social engineering Economics Informatics Social psychology		
Energy environmental impacts	Atmospheric environment Life cycle assessment		
Energy security and policy	Energy policy Energy security Disaster prevention		
Energy and Materials engineering	New functional materials Materials evaluation	Solar cells Batteries Hydrogen energy Crystal chemistry Solid state physics Semiconductors Ionic liquids	Materials science Reliability and integrity Functional and intelligent materials
Biological engineering and biochemistry	Biomass Bioenergy and biochemicals Photosynthesis	Bioenergy Biotechnology Biomacromolecular design Chemical and synthetic biology	

Source: IESC brochure 6

## IESC Modules – Autumn 2010

NEW COURSES FOR IESC	Energy systems and sustainable development	SES
	Introduction to energy	SES
	Energy and materials	SES
	Energy systems – analysis and design	SES
	Special seminar on interdisciplinary energy science	ECS
	Fusion systems and materials	ECS
EXISTING ENGLISH COURSES	Advanced energy conversion science	ECS
	Fundamental plasma simulation II	FES

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## New faculty member for the IESC

Dr Ben McLellan, Associate Professor (for Global 30)

Dr McLellan has worked in the area of sustainability, energy and industrial processing systems over the past eight years.

His particular fields of interest are: integration of sustainability into industrial design, technology assessment, and energy systems and sustainable development.

Source: IESC website "Staff"

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## Points for another step forward

### Multi-program management

#### **English and Japanese Master's programs run in parallel in a graduate school**

- Faculty members teach both in English and Japanese?
- Independent admission procedures for each program
- How to mingle the IESC students with students in the existing Japanese course?

### English program for who?

#### **Applicants eligibility**

- Who is for the IESC (English) and who for the Japanese course?  
education/language/current location/citizenship and nationality
- Entrance exam versus documents-based admission

### Funding opportunities

#### **No 'stand-alone' scholarship/waiver program for applicants**

- Applicants must find their own source of funding.
- Students' citizenship/nationality and socio-economic makeup?