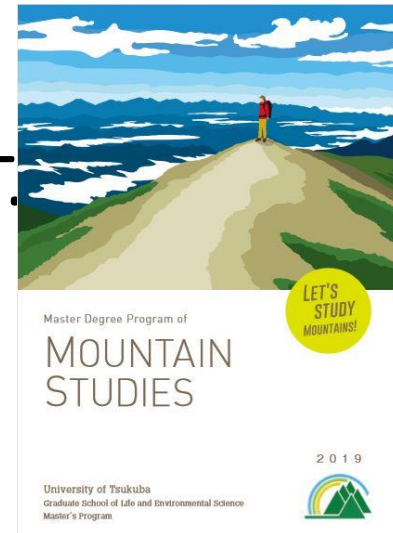


Challenges of MSc program of mountain studies by university collaboration in Japan

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Background: Problems in the mountains and education system in Japan

Disaster with climate change in monsoon Asia (land slide, flooding, avalanches,,)

-> conservation vs protection

-> forecast and mitigation

-> Student's interest more in applications

Depopulation and aging in mountains

-> Measures against wildlife

-> Decrease in enrollment, University budget cut

-> Students from cities only, no u-turn



How Japanese universities can transform education system and contribute to the mountain studies?



Globalization and mountain tourism changes

-> Increases of trekkers, over usage, alpine accident -> mountain guide/eco-tourism business

-> expectation for local economic revitalization

-> needs education system to learn social-ecological/manage-conservetaion mountain system

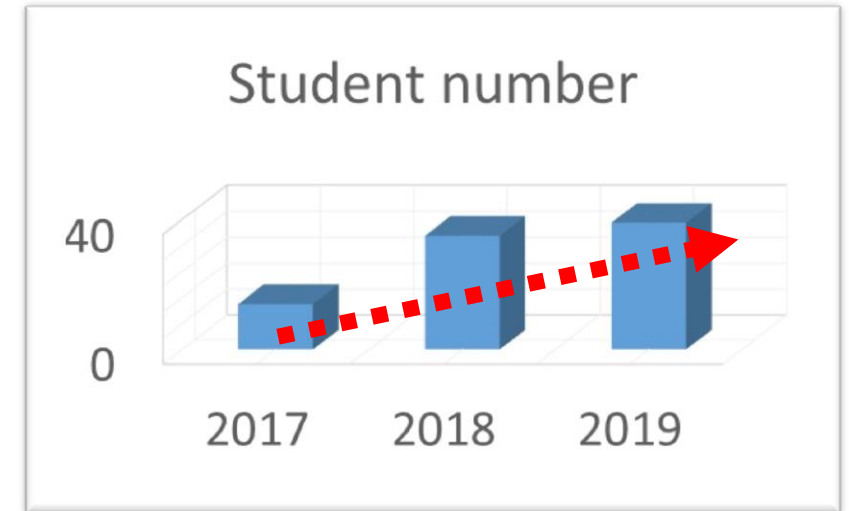
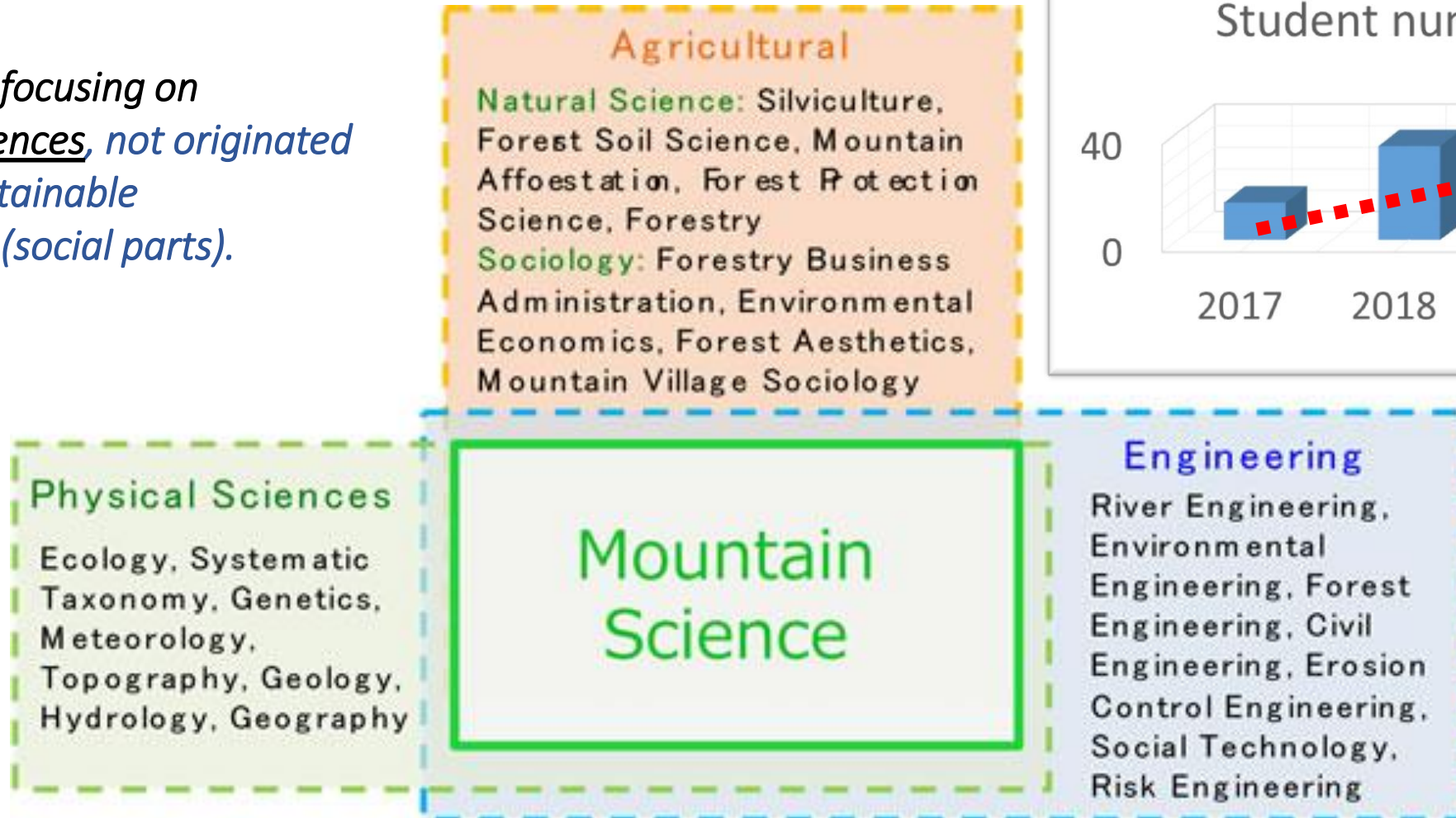
Question 1: What are concrete opportunities and challenges in teaching and learning about mountains and sustainable mountain development?

*Four universities collaboration started
Msc program for “mountain science”*

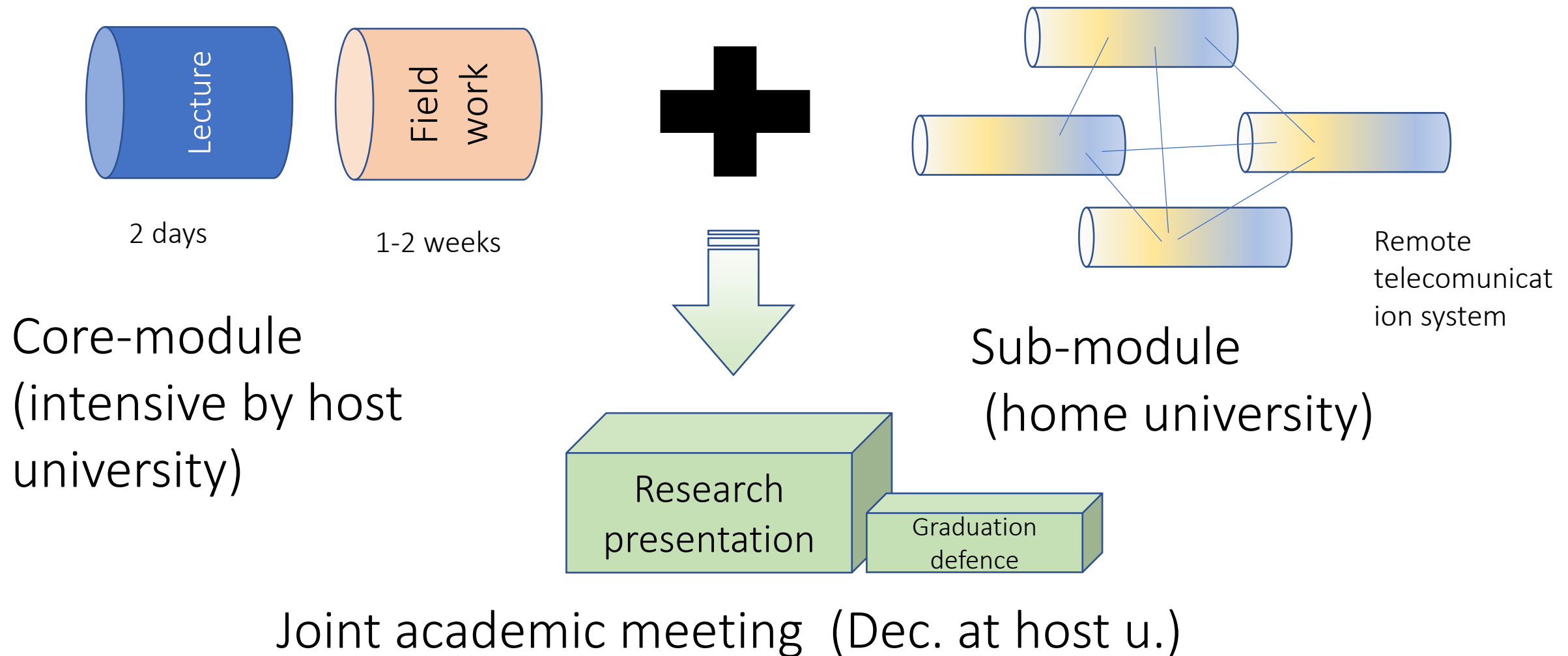


Dynamics: Share the university resources to supply sciences to learn functions/services of mountains

We are more focusing on mountain sciences, not originated (keen) for sustainable development (social parts).



Education system: How we can manage university collaboration,,





Completion Requirements

Subject Category	Subject Group		Subject name (credit)	Credits Awarded
Specialized Core Subjects	Introduction	Required subject	Introduction to Mountain Science A (1) Introduction to Mountain Science B (1)	2
	Field Course	Required subject	Mountain Science Field Course A (1) Mountain Science Field Course B (1)	2
	Practical Skills	Required subject	Field Safety Management (1)	1
		Elective subject	Mountain Environment Internship I (1) Mountain Environment Internship II (2) Advanced Research Experience (Study Tour) (1) Advanced Lecture in Mountain Studies (1)	1 +
Specialized Applied Subjects	All Domains	Required subject	Mountain Studies Seminar IA (2) Mountain Studies Seminar IB (2) Mountain Studies Seminar IIA (2) Mountain Studies Seminar IIB (2) Research in Mountain Science I (3) Research in Mountain Science II (3) Introduction to Culture and Science of Mountains (1)	15
	Geological Domain	Elective subject		2 +
	Biological Domain	Elective subject		2 +
	Anthropological Domain	Elective subject		2 +
Credits for Completion				30

- With regard to the graduate school common subjects, up to 3 credits can be recognized for satisfying completion requirements (Practical Skills).
- For designated subjects established by partner universities, up to 10 credits can be applied to Practical Skills or Specialized Applied Subjects.
- Students must obtain 30 credits from the completion of subjects, as per the above, and pass a master's thesis examination and final test.

※ 1 credit = 15-30 hours for lecture (10 times classes), practice, and 30-45 hours for experiments

Question 2: What experiences from the development and organization of SMD education programs can be generalized beyond their specific contexts? What coordination mechanisms exist or could be developed?

- *Difficulties to start interdisciplinary contents by limited staff. Many staffs engage process studies.*
- *Negotiation with ministry to start degree program.*
- *Necessity of new education system/coordination framework among the universities.*
- *Various student needs (process study vs practical knowledge).*

Question 3: How can outputs and knowledge from SMD practice be incorporated into SMD curricula and learning opportunities?

This is tough question,, our curriculum is not designed to educate “sustainable development (SD)” .

However, students already experience the necessity of SD in local society trough field works/internship program. We need more social scientists with realizing that “what is the SD for mountain society in Japan, or in Asia?”

Also, we need to learn the information bout how other institutions conduct ESMD by whick kind of methods.