



XXVII FIG CONGRESS

11-15 SEPTEMBER 2022
Warsaw, Poland

Volunteering
for the future –
Geospatial excellence
for a better living

Education on the Geographic Indicators of the Sustainable Development Goals in Uruguay

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TS08F: FIG & the SDG's
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Content

- Instituto de Agrimensura- Uruguay
- Curricula – Surveyor
- Research module: SDG´s geographical indicators
- Final comments



URUGUAY- 1825

UNIVERSIDAD DE LA REPUBLICA - 1849

FACULTAD DE INGENIERIA- 1885

AGRIMENSURA - 1887



<https://www.fing.edu.uy/>



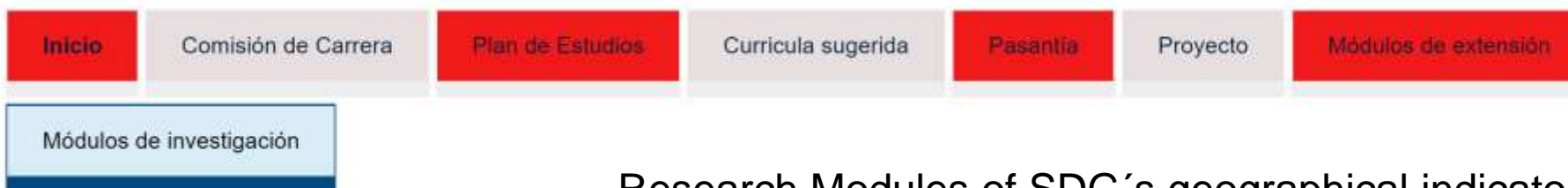
CURRICULA

5 years – 450 credits (15 hours per credit)

GRUPOS DE CONOCIMIENTO DE LA CARRERA

MAT	MATEMÁTICA	FIS	FÍSICA	TEO	TEORÍA DE LAS OBSERVACIONES	INF	INFORMÁTICA	JYE	JURÍDICAS Y ECONÓMICAS	AGL	AGRIMENSURA LEGAL
AVA	AVALUACIONES	CAT	CATASTRO	FPR	FOTOGRAMETRÍA Y PERCEPCIÓN REMOTA	GEO	GEODESIA	OTU	ORDENAMIENTO TERRITORIAL Y URBANISMO	SIG	SISTEMAS DE INFORMACIÓN GEOGRÁFICA
TOP	TOPOGRAFÍA	TAL	TALLER	PRY	PROYECTO	PAS	PASANTIA	GES	GESTIÓN	CHS	CIENCIAS HUMANAS Y SOCIALES
OTR	OTROS										

<https://eva.fing.edu.uy/course/view.php?id=1511§ion=0#tabs-tree-start>



Research Modules of SDG's geographical indicators: Land Surveying Engineering and Cartography Technologist – 5 credits

MOTIVATION

RELEVANCE OF SDGs

- UN-GGIM
- Concepts not included in curricula

Because of COVID-19

- Design a course in order to keep students motivated and learning new concepts.
- On-line classes, meetings, interviews!
- Promote interaction even not face to face.



SUSTAINABLE DEVELOPMENT GOALS



Goals of Research Module :

- Conduct a **diagnosis of the status of SDGS geographic indicator** measurement in Uruguay.
- Identify **strengths and weaknesses** of the measurements carried out in the country.
- Analyze the **applicability of the existing methodological guidelines** at a global level.
- Introduce students to the **different techniques applied to** measure the SDGs.
- **Promote a critical evaluation** of the techniques applied and encourage the proposal of others.

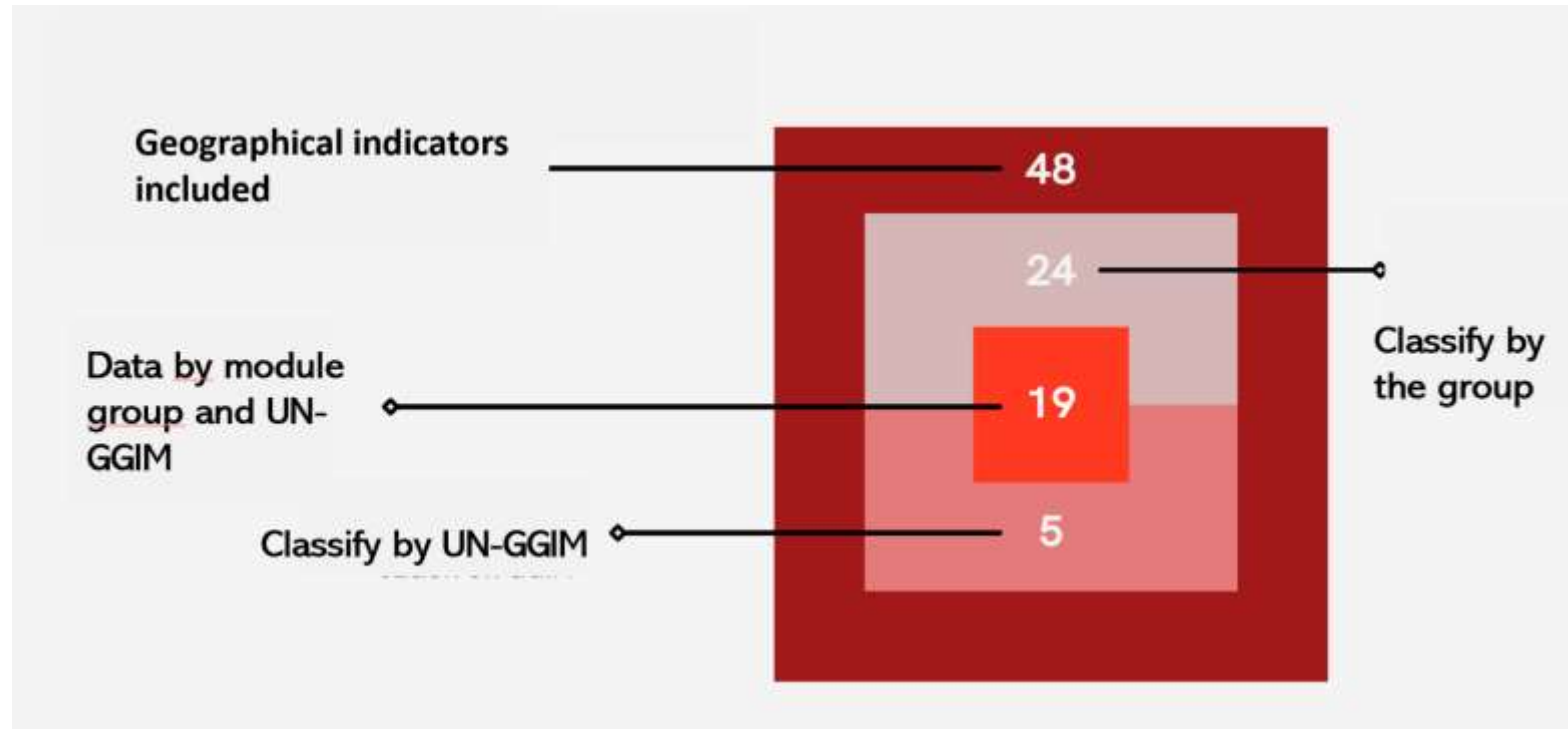
Pedagogical objectives:

- Bring students a closer **knowledge of the SDGs**;
- Introduce students to **research methodologies**;
- Promote a **critical spirit** in the approach to analysis;
- Encourage the **development of proactive processes** to measure geographic indicators;
- Encourage **interdisciplinary work**;
- Introduce students: **writing of scientific articles** and the dissemination of projects;
- Promote the **development of communication activities**, through the elaboration of scientific reports and oral/written presentations at national and international level.
- Recognize that our profession **HAS THE KNOWLEDGE TO CONTRIBUTE TO SDGS**

It was a pedagogical experience that allows dabbling the world of the SDGs from a practical approach, making students feel more confident in their capacities.

Activities

Learning about the SDGs, their indicators and identification of geographical indicators.



Activities

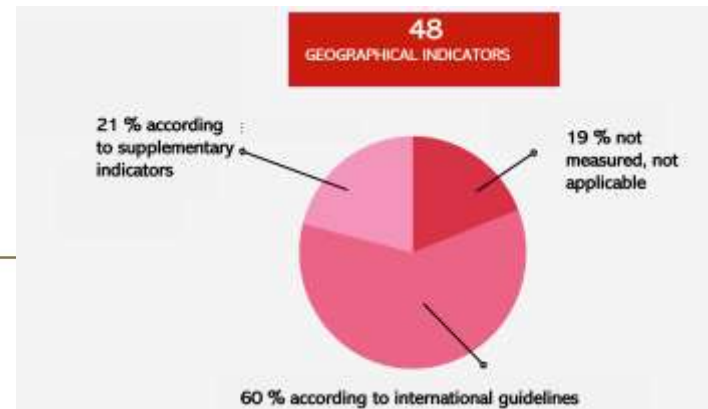
Study of the state of the art on the measurement of these indicators in Uruguay, using voluntary national reports.

Study of the state of the art on the application of the different methodological guides existing at the international level.

Primary identification of strengths and weaknesses in the measurement of these indicators in our country.



Nº de indicador	¿Es aplicable a Uruguay?	¿Existe una guía internacional?	¿Se está midiendo de acuerdo a la guía internacional?	SI NO se mide igual, ¿Existe un indicador suplementario?
1.1.1	Si	Si	No	Si
1.4.1	Si	Si	No	Si
1.4.2	Si	Si	No	No
1.5.1	Si	Si	No	Si
2.3.1	Si	Si	No	Si
2.4.1	Si	Si	No	Si
3.9.1	Si	Si	No	No
3.9.2	Si	Si	No	No



Evaluation of the measurement of specific indicators at the national level, analyzing voluntary national reports and international methodological guides.

2.4.1 Proportion of agricultural area under productive and sustainable agriculture

6.3.2 Proportion of uniform water bodies with good ambient water quality

6.6.1 Change in the extent of water-related ecosystems over time

15.1.1 Share of forest land in land area of the country

15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type

Proposal of alternative new methodologies or improvements.

Products

- ✓ Reports
- ✓ Presentation – Panamá
- ✓ Presentation- Ingeniería de Muestra 2020
- ✓ Article
- ✓ Experience on publishing- PAIGH



CONCLUSION

- 21% of SDG indicators have a geographic component
- At the country level:
 - 81% of the 48 geographic indicators are being measured
 - 100 % with methodological guidelines
 - only 60% are measured using the proposal guide
 - 21% are measured using supplementary indicators

**Measurement + location:
SURVEYORS**

COMMENTS

- It is a proposal that builds **links** between the environmental, geographic and academic views.
- It is an innovative proposal that **allows training expert professionals** in the use of geographic information and brings them closer view of the **Sustainable Development Goals**.
- It highlights the need to **include in the university agenda**.
- It makes **visible the relevance of having professionals trained** in these disciplines to contribute to the measurement of the SDGs and therefore **play a leading role in supporting decision making**.

SURVEYORS are the professionals that have the holistic capacity to measure these indicators by applying international guides, elaborating new proposals, capturing the required data, analyzing in an adequate and appropriate way, etc.



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Thank you - Gracias

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