

# Sustainability Activity Mapping at U of I through Data Storytelling

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As we sat around brainstorming ideas for our project, our conversation meandered through various topics. We found ourselves talking about some intriguing courses that weren't necessarily in our own fields of study. Someone mentioned a class on renewable energy, and another brought up a course on sustainable agriculture. It seemed a bit odd at first, as these courses weren't what we typically thought about, but they sparked something within us.

We couldn't help but notice that despite coming from different backgrounds, these courses all had one thing in common: sustainability. It was like a lightbulb moment for us. How had we never considered the importance of these topics before? It was as if they held a hidden weightage that we hadn't realized until now.

This realization led us to ponder the broader implications of sustainability in education. Whether it was engineering, business, or environmental studies, it became clear that sustainability was the common thread tying everything together. It made us wonder how our own university, UIUC, was incorporating sustainability into its curriculum.

With newfound curiosity, we decided to delve deeper into this topic. It was fascinating to see how these seemingly unrelated courses had sparked our interest in sustainability. It made us realize the importance of integrating sustainability into every aspect of education. And so, fuelled by this newfound enthusiasm, we embarked on a journey to explore how UIUC was shaping a more sustainable future through its curriculum.

Before we could move forward the biggest question was, how should we go about looking for the necessary data.

Excited about our project on sustainability at UIUC, we gathered around the table to plan our next steps. We started by brainstorming the types of data we required and how to gather it effectively.

This included techniques such as online research and examining existing datasets. We knew we needed to ensure the data was clean and organized, so we discussed strategies for data cleaning and exploration. Additionally, we talked about the importance of visually representing our findings through techniques like data mapping.

Realizing we might need help; we thought about reaching out to professors or researchers for guidance. We also wanted our findings to be visually appealing, so we talked about creating visualizations.

Our first task was to search the university's websites and online databases for data. But it was scattered everywhere! We needed a way to bring it all together.

That's when we turned to tools and software to help us consolidate the data. It was a bit tedious, but we managed to merge everything into one cohesive dataset.

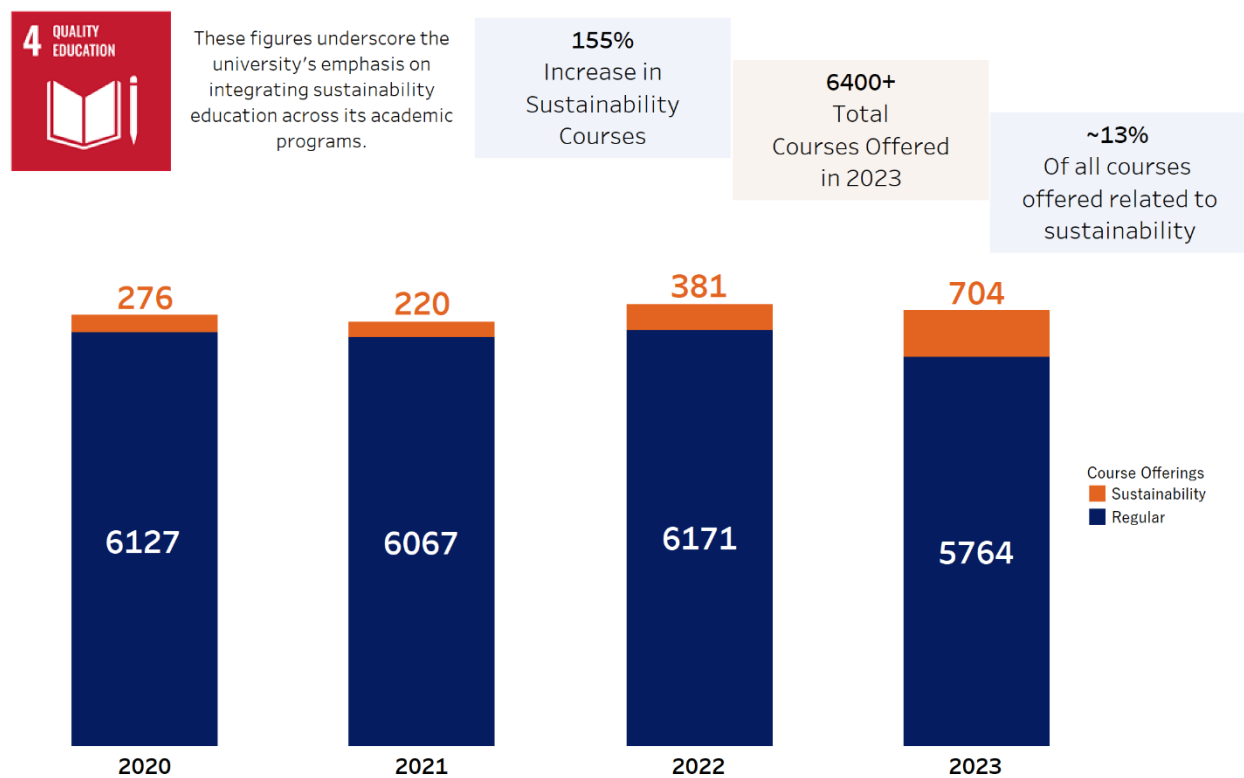
With the data organized, we started crafting stories to highlight UIUC's sustainability efforts. We wanted our work to inspire action and drive positive change.

As we prepared to share our findings, we felt proud of our journey from planning to creating impactful narratives. We hoped our work would make a difference in building a more sustainable future at UIUC.



# Unpacking UIUC's Course Offerings. How many courses does UIUC offer?

The following graph shows the comparison between the total number of courses offered at the University of Illinois Urbana-Champaign from 2020-2023 and the subset of sustainability courses over the years. The graph provides a clear depiction of the growth in sustainability-focused offerings amidst the broader landscape of academic curriculum at UIUC.



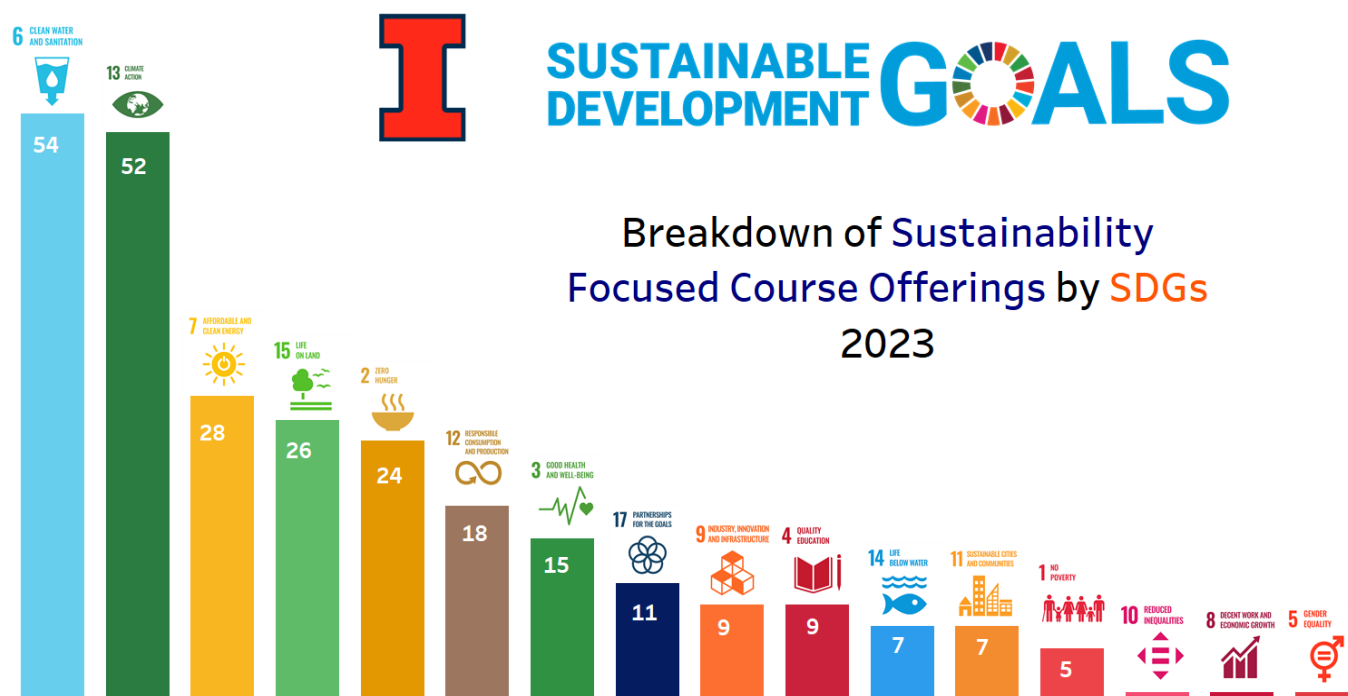
The key findings from the graph can be summarized as follows:

1. Total Courses Offered in 2023: The data reveals that a total of 6,552 courses were offered at the U of I in 2023 across various disciplines. This figure provides insight into the extensive range of academic offerings available to students.
2. Significant Increase in Sustainability Courses: The visualization demonstrates a remarkable surge in sustainability courses offered from 2020 to 2023. Specifically, there is an increase of 155% in the number of sustainability courses during this period.
3. Resilience of Sustainability Course Offerings: Despite a slight decrease of 1.28% in the total number of courses offered from 2022 to 2023, the number of sustainability courses had a significant increase of approximately 85% during the same period.

Even through the ups and downs in overall the course offerings, these numbers showcase how sustainability education at UIUC keeps thriving and evolving.

## Did we have enough courses in 2023 aligning with the UN's 17 Sustainability Development Goals?

The university's several departments across colleges have meticulously designed courses keeping the United Nations' 17 Sustainability Development Goals and continues its efforts to develop courses that better align with them. The following visualization shows the breakdown of total sustainability focused courses offered at the University of Illinois during the year 2023 mapped according to the 17 UN Sustainability Development Goals



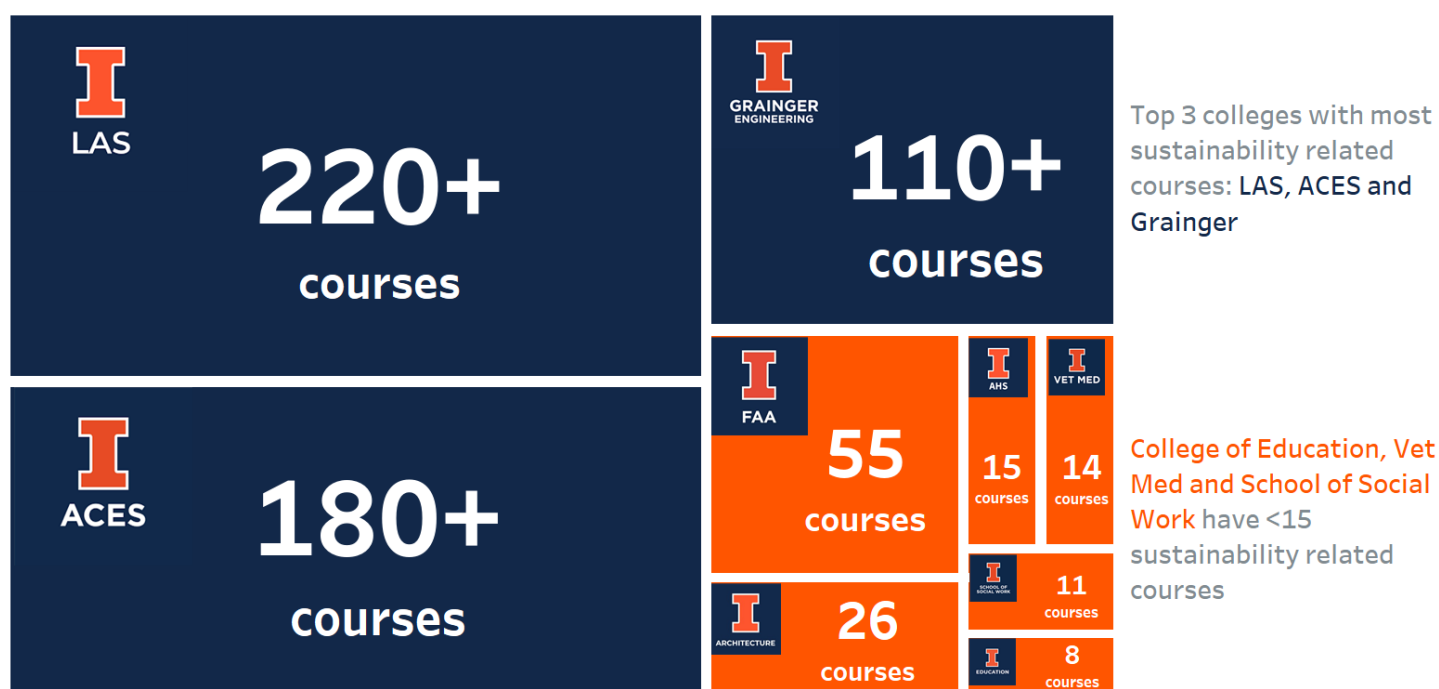
The top 3 most commonly occurring Sustainability Development Goals are:

- **Goal #6: Clean Water and Sanitation:** 54 courses
- **Goal #13: Climate Action:** 52 courses
- **Goal #7: Affordable and Clean Energy:** 28 courses

This visualization can help relevant stakeholders to identify which SDGs are well aligned with the courses designed at the university and which goals need to be better incorporated in courses to provide a holistic and well-developed sustainability infused curriculum.

## Snapshot of sustainability courses availability in 2023, broken down by colleges

Every college on campus has developed courses spread across specialized fields and niche disciplines. However, many of them also incorporate an element of sustainability which truly makes our university special. The following visualization breaks down the total count of sustainability related courses according to colleges at University of Illinois in the year 2023, in the form of a tree map.



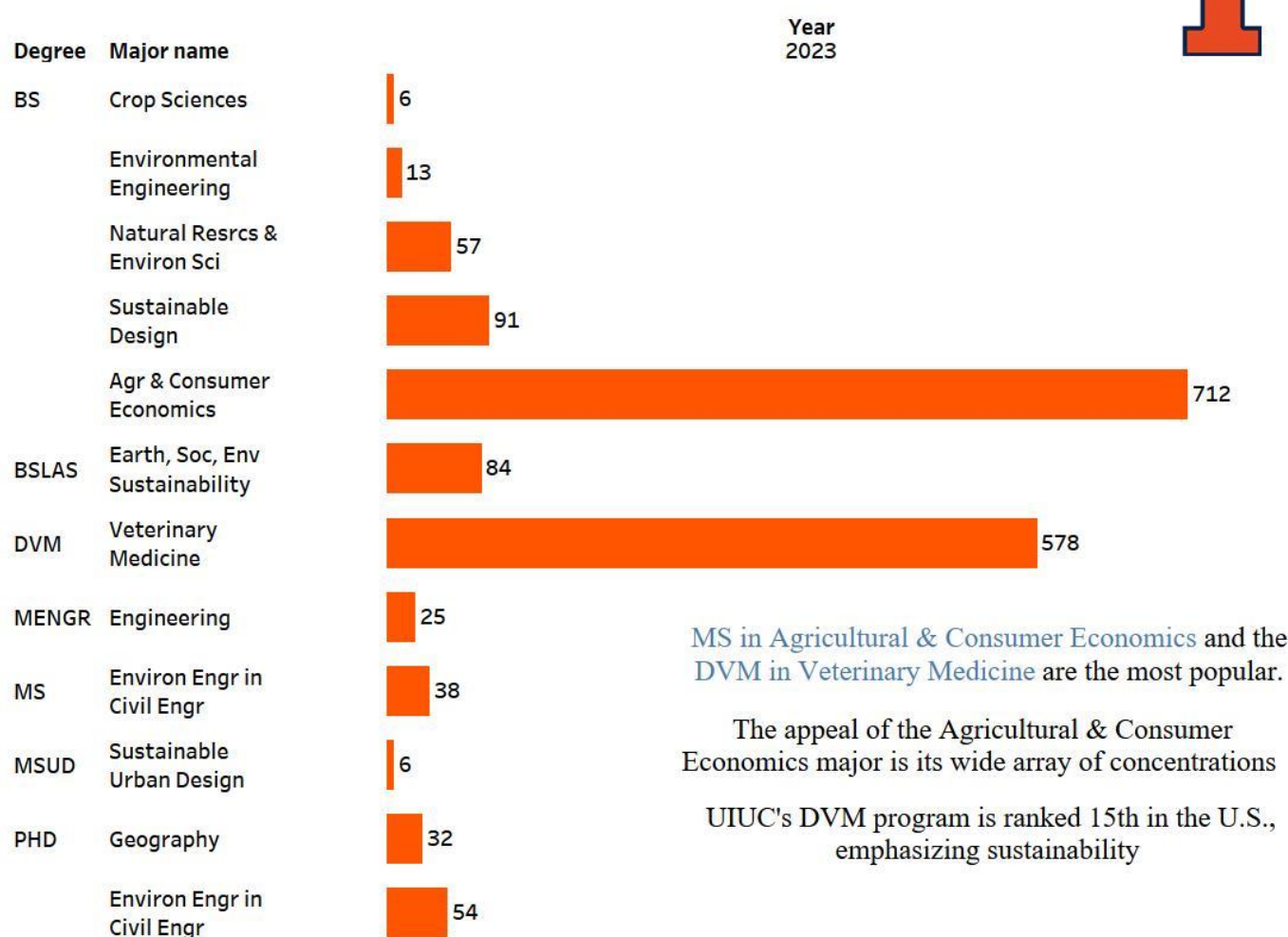
The top 3 colleges with the most sustainability related courses are:

- College of Liberal Arts and Sciences (LAS): 224 courses
- College of Agricultural, Consumer and Environmental Sciences (ACES): 189 courses
- The Grainger College of Engineering: 115 courses

This tree map allows stakeholders to get a snapshot of the sustainability efforts in the curriculum segmented by colleges which can be used by used marketing and communication teams across various departments/colleges to promote sustainability efforts.



## DEGREES RELATED TO SUSTAINABILITY OFFERED IN UIUC



The chart showcases the enrolment figures for the Fall of 2023 at the University of Illinois at Urbana-Champaign, highlighting the programs leading the charge in sustainability education. In this year's lineup, the MS in Agricultural & Consumer Economics and the DVM in Veterinary Medicine have drawn the most students.

The Agricultural & Consumer Economics major is particularly popular, likely because of its rich selection of concentration offerings—ranging from Agri-Accounting and Farm Management to Agribusiness Markets & Management, and even extending into Consumer Economics & Finance, Environmental Economics & Policy, International Trade & Development, Public Policy and Law, Financial Planning, and Finance in Agri-Business. These diverse pathways reflect a broad interest in shaping a sustainable economic future.

Meanwhile, the DVM program, with its 15th ranking among the top Veterinary Medicine degrees in the U.S., captures a substantial enrollment as well. Its prestige and commitment to animal welfare and sustainable practices resonate with many students aspiring to make a difference in veterinary sciences.

## References:

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<https://sustainability.illinois.edu/education/student-resources-courses/>

<https://dmi.illinois.edu/stuenr/>

<https://dmi.illinois.edu/stuenr/#race> -Student Enrolment Dataset link

<https://sustainability.illinois.edu/education/student-resources/> -Enrolment Dataset link

<https://sustainability.illinois.edu/education/student-resources-courses/> -UIUC Sustainability Courses

<https://courses.illinois.edu/schedule> -Course Explorer

<https://sdgs.un.org/goals> -UN's SDGs