TRUE

Transforming Residential Undergraduate Education at the University of Michigan

A Proposal for the Future of Undergraduate Education at Michigan

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This proposal was developed by a group of 40 faculty, staff, and students from 17 different schools and units across the University of Michigan, with support from the Office of Academic Innovation.

This is an abridged version of the proposal, containing an overview of the TRUE program, a detailed description of learning goals, and a description of the program structure/curriculum. The full proposal contains information about learner assessment, the Center for Interdisciplinary Research and Learning Experiences (CIRCLE), Admissions, a Budget Model, and a narrative illustration of the student experience in TRUE.

For more information or the complete proposal, please contact:

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TRUE: Transforming Residential Undergraduate Education

Given the capabilities and resources of the University of Michigan, how would you design residential undergraduate education, if you could start with a blank slate? It seems unlikely that something resembling current undergraduate education would emerge. The past century has seen little change in how we organize education, even as the broader world has undergone profound changes. We live in a world of increasingly complex challenges, with increased need for problem-solvers who can think across boundaries and make progress despite ambiguity. Yet our current approach to K-20 education emphasizes standardization, compliance and rule-following. What's more, undergraduate education looks similar across all types of university contexts. Doesn't a large public research university offer different kinds of opportunities to learners than a small private college? President Angell would have little trouble recognizing the general form of undergraduate education at the U-M were he to visit today. He might wonder, “Where is the uncommon education for the common man I was hoping for?”

An undergraduate education that truly leveraged the unique capabilities and resources of the U-M would directly engage students in the core enterprise of the research university: discovery, knowledge creation, and working on solutions to society’s truly pressing challenges. Students would be engaged in this work not as a side benefit of being at the U-M, but as the core intentional purpose of their undergraduate studies. We propose TRUE (Transforming Residential Undergraduate Education) as a design for undergraduate education that represents a revolutionary rethinking of the premises of a bachelor’s degree program, situating undergrads at the heart of our scholarly enterprise.

TRUE Program Core Elements
The TRUE program takes the power of learning through problem-solving to a new level. Undergraduates work directly on faculty-led research projects in multi-level, multi-disciplinary teams. Learners are immersed in complex, ambiguous, real-world problems, and learn how to make meaningful progress on solutions to those problems. The vast educational and scholarly resources of the U-M support learning in the context of these research projects. Readiness for graduation is marked by the mastery of ambitious learning goals tuned to the needs of the current (and future) world they are being prepared to enter. TRUE does not use grades, credit hours, or required courses to measure or pace learning. Mastery, agency, and equity are at the core of the program design. TRUE will employ a new kind of portfolio-driven transcript to link learners to opportunities for both employment and graduate study.

TRUE also helps make a large university feel smaller and more connected... for both learners and scholars. Learners will develop close connections to faculty members and peers through multi-level, homeroom-like “Forums” that support students across their undergraduate years. A “Launch Experience” introduces learners to ways of knowing and foundational skills needed to succeed in the program. The Ginsberg Center will convene U-M scholars around central multi-disciplinary themes, facilitate scholarly connections to various publics, and connect students to projects that advance their progress towards mastery of the learning goals through the Center for Interdisciplinary Research and Connected Learning Experiences (CIRCLE). As the TRUE
program works to better connect students to the world around them, it also creates better connections between the U-M and its various publics.

**Innovation that Leads the Way, for the Campus and for the World**

The TRUE program is made possible *because of* the breadth and depth of the U-M, and is intended to serve as a lighthouse, challenging the present to enrich the future. We expect universities around the world to take notice and seek to replicate ideas from this program, and we also expect concepts from TRUE to spread to units across the U-M as they prove their potential. Those who seek to improve education often try to “do things better,” but this leads to only incremental improvements. We seek to *do better things*, to change the operating principles and structures that constrain undergraduate education. In this way, TRUE leads to better outcomes for learners and benefits to the U-M—and to the multiple publics we serve—through enhancing multidisciplinary connections and engaging undergraduates in the core scholarly work of the research university.

The ideas behind the TRUE program are rooted in our best understanding of how people learn, matched with a thoughtful consideration of designs for higher education that reflect the opportunities present at the University of Michigan. Discussions related to TRUE have been developing on this campus for nearly a decade, and accelerated through the efforts of a collaborative group of faculty, staff, and students working together over the past year. This document describes the core elements of TRUE across a range of key areas.

**TRUE Administration and Budget**

TRUE is designed as a full-time, first-year admitting bachelor’s degree program, to serve 160 new students/year (640 students total) at its full operating capacity. TRUE should be owned by one or more small units within the U-M, but not replace any existing bachelor’s program. The program would not have faculty of its own, but rather use faculty from other units, using a reimbursement plan similar to the Problem Solving Initiative at the Law School. There would be a small number of dedicated staff to support TRUE recruitment, admissions, student life advising, and career advising. Initial budget modeling indicates that operating TRUE, including enhancing the capabilities of the Ginsberg Center to support CIRCLE, is fully supportable through tuition revenue, though we also believe it will be a program that is attractive to funders and donors.

**How to Make TRUE Happen**

We think it will take about three more years of focused effort to make TRUE a reality. The first year would be focused on further refinement of the program design, and a deep dive into the financial, space, and other needs of any new program, working closely with the Office of the Provost to concretely define program costs. We would also pursue the required Regental and MASU approvals. In subsequent years, we would pilot the program with current U-M students before moving to phased growth through newly admitted first-year students.
TRUE Learning Goals

Students who graduate with a degree from the TRUE program have *demonstrable competency* and the *capacity for continuous growth* in the following areas:

**Principal Objective:**  
**To Develop Capacities for Problem Identification and Problem Solving**  
The ability to translate ambiguity into action by identifying productive frames, defining constituent problems within those frames, and defining tasks that allow for progress on those problems.

**Ways of Knowing (Epistemologies)**

**Epistemological Fluency - Fluency with a Range of Methods for Thinking/Reasoning**  
The ability to think in and with tools representing a broad range of different thought traditions, including: Logical, empirical, statistical, computational, historical, critical (analytic, evaluative), creative and artistic. This includes fluency with both quantitative and qualitative tools for understanding, interpreting and expressing ideas and information.

**Systems Thinking and Complexity**  
The ability to recognize how individual components exist within larger systems, and to understand how systems interact within themselves and with other systems to produce outcomes, sometimes unexpected outcomes. The ability to reason with models and recognize the difference between what is knowable and unknowable, or predictable and unpredictable.

**Communication**  
The ability to construct a coherent and persuasive narrative in a variety of media (written, oral, visual). The ability to establish meaningful connection with an individual or audience through discussion, presentation, or performance. The ability to engage in respectful and productive debate.

**Information Literacy**  
The ability to process, understand, verify, and interpret information from various sources. The ability to distinguish between accurate and inaccurate information, or information that is processed or presented in biased ways, and to know how to respond to or deal with inaccurate or biased information.
Personal Good

Intentionality and Reflection
The ability to formulate a plan for one’s own learning and development in both the short- and long-term. The ability to reflect on progress and outcomes, and make choices about the benefits and costs of different paths.

Resilience
The ability to define and measure progress towards goals, and to understand how effort leads to progress even when short-term efforts are not viewed as successful. The ability to recover from setbacks and failures.

Self-knowledge and Well-being
The ability to monitor one’s own physical and mental health, to be self-regulating, and be able to ask for or advocate for support or help when it is needed.

Team Good

Leadership
The ability to organize the work of groups or organizations, to make decisions on behalf of those groups, and to provide supervision and feedback to them. The ability to act as a servant leader.

Teamwork
The ability to follow instructions, to carry out assigned responsibilities, and to negotiate responsibilities.

Collaboration
The ability to partner deliberately with others, to negotiate, challenge, and be challenged on issues of partnership in order to produce something together.

Accountability
The ability to meet or exceed agreed-upon expectations, to take ownership of the results of one’s own effort and personal choices.
Public Good

Civic Purpose and Engagement
The ability to understand community, civic, and government structures at local, national, and global scales. The ability to participate in and contribute to the health of these structures.

Intercultural Engagement
The ability to identify cultural patterns including one’s own, to respectfully compare and contrast patterns across cultures and communities, to engage in respectful dialogue to develop understanding and empathy across cultures and communities, especially in the case of unfamiliar ways of being. The ability to recognize differences in privilege and power, and act to enhance equity in response.

Ethics
The ability to identify a set of moral principles that govern one’s or a group’s behavior or conduct, and to make decisions that take account of those moral principles.

Empathy and Altruism
The ability to identify needs felt by individuals or groups, and to act positively to address those needs where one is able to make a contribution to progress.

Sources and Inspirations

“Big 10 Leadership and Change Competencies” from College Unbound (https://www.collegeunbound.org/apps/pages/competencies)


Principal Objective: To Develop Capacities for Problem Identification & Problem Solving

Ways of Knowing (Epistemologies)
- Systems Thinking/Complexity
- Logical
- Empirical
- Statistical
- Historical
- Critical (analytic/evaluative)
- Creative
- Artistic
- Computational
- Communication
- Information Literacy

Personal Good
- Intentionality & Reflection
- Resilience
- Self-knowledge & Well-being

Public Good
- Civic Purpose & Engagement
- Intercultural Engagement
- Ethics
- Empathy & Altruism

Team Good
- Teamwork
- Collaboration
- Leadership
- Accountability
TRUE Program Structure/Curriculum

The TRUE program employs a multi-stage curriculum, leading to a bachelor’s degree, with the following learning experiences:

- **Forum** is a homeroom-like experience where students receive guidance from a key faculty member who serves as academic advisor, as well as more advanced students. Students stay with the same Forum across all years of their U-M experience.
- The **Launch Experience** starts students on their path towards mastering the learning goals, and learning to be part of research project teams.
- **Research Engagements** are the core of the TRUE learning experience. Students rotate among different projects aligned with a core theme (e.g., Clean water), coordinated by the CIRCLE Institute.
- **Focused Courses** are selected according to individualized student learning and research needs. These are regular U-M courses.
- **Elective Courses** are selected by students according to their own curiosity. These are “regular” U-M courses.

The TRUE (Transforming Residential Undergraduate Education) program is designed as a bachelor’s degree-granting program where students enter as first-year college students, admitted out of high school or non-traditional paths to higher education. We are designing the TRUE program such that it would take roughly four years to complete, though we resist describing it as a “four-year” program, as we are focused on individualized pathways towards competency and mastery, as opposed to time-based ways of measuring progress. There may be other ways to interact with the TRUE program, which we describe towards the end of this document.

Students in the TRUE program enroll in four kinds of learning experiences: Forum (similar to a homeroom), Launch Experience, Project Engagement, Focused courses, and Elective Courses. We describe each of these below.

**Forum**
Forum, which can be thought of as a college-level analogue to a secondary school “homeroom,” is a multi-level experience that students enroll in for all terms during their participation in the TRUE program. Forum is meant to be an academic home-within-a-home for students on campus.

Each Forum will have a single, consistent faculty member as its organizer. This faculty member serves as an academic advisor to all students in that Forum. Research evidence suggests that a sense of connection, both to peers and to one or more faculty members, is a key element of student success in college. Unfortunately, for many students at Michigan, such connection does not come until their upper-level years, if at all. Forum is designed to address that by providing students with a real connection to a faculty member right from the start of their college experience.
A Forum may enroll up to 80 students, or 20 new students from each incoming cohort. As a multi-level experience, more experienced students can also provide valuable mentoring to less experienced students, both in terms of the TRUE program and other aspects of life at the U-M and in Ann Arbor.

The curriculum of Forum focuses on the “Public Good” and “Personal Good” elements of the TRUE learning goals (Civic Purpose and Engagement, Intercultural Engagement, Ethics, Altruism & Empathy; Resilience, Self-Knowledge and Well-Being) and is intended to help students to develop plans and self-regulation skills to engage with the rest of the program.

Forum will also serve as a nexus for other opportunities within the TRUE program, including coordination with the CIRCLE Institute and introductions to various project-based learning opportunities in the program.

Launch Experience
During their first academic year in the TRUE program (Fall, Winter, and possibly Sp/Summer terms), students engage in a cohort-based (first-year students only) set of learning experiences designed to provide a running start towards meeting the learning goals of TRUE and to prepare students for productive engagement as part of project teams. Though there is the potential for a standard university course to be part of the Launch Experience, we do not want to constrain these learning activities to typical semester-length structures. Launch Experience activities will each have a coordinating faculty member, but engage multiple instructors to deal with different content and material.

All parts of the Launch Experience will emphasize teamwork, and start learners on the “Team Good” learning goals of the TRUE program (Leadership, Teamwork, Collaboration, and Accountability).

Research Engagement
In conjunction with the Launch Experience, after students have some grounding in TRUE and the U-M, they will start to engage with faculty-led research projects. This engagement will be coordinated by the CIRCLE Institute (in conjunction with the Ginsberg Center). Students will work on one project at a time, but are expected to switch projects periodically both to broaden their exposure to different modes of scholarship, and also to take advantage of opportunities to make progress on different learning goals, which will vary by project.

CIRCLE will organize projects around a central theme, such as water quality. The concept is that there are projects/investigators across the U-M with a focus on water quality. Many of these projects may be unaware of other projects, especially if they are in a different unit. CIRCLE creates opportunities for “productive friction” across projects, and a context in which investigators can benefit from community or public engagement. TRUE students, as they move across projects, will be an important conduit for inter-project communication and learning.
**Focused Courses**
These are “regular” courses taught at the University of Michigan, taken by TRUE students in response to specific needs of the projects they are working on. For instance, a qualitative data analysis course for a student working on a project that conducts participant interviews, or an advanced data visualization course for a student developing client-focused reports or displays.

As part of Forum activities, faculty will help advise students about courses and course sequences related to their evolving career goals. In this way, we will support TRUE students in obtaining depth where it is necessary. TRUE program faculty and staff will work with units across campus to ensure that prerequisite requirements are clearly defined and met for these courses. Students also have the option of taking courses online when available (e.g., the new STATS 250 MOOC series).

Though students may earn grades in regular university courses, we will not record or report those grades in the TRUE program.

**Elective Courses**
While at Michigan, TRUE students may wish to participate in some of the “famous” or otherwise well-regarded courses on campus. Such courses form an important touchstone of the Michigan experience, and we encourage students to enroll in them, but with a limit of one/term and none in the first year. Though students may earn grades in regular university courses, we will not record or report those grades in the TRUE program.
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