topics...

❖ accomplishments & progress to date
❖ next steps
65% of today’s students will have jobs that do not exist yet; how might we prepare students for their futures?

- Communication
- with uncertainty
- Global perspective
- & Growth Mindset
- Critical thinking
- authorship
- Lifelong & deep learning
- Willingness to take responsible risks

- Comfort
- Resilience
- Self-
- Computational thinking

How might we... help students to develop these critical competencies?
21st Century Task Force Charge - to advance Michigan Tech's core educational goals by developing transformative content and approaches that clearly address the needs of the 21st century workforce and incorporate key areas for student development.
Consider this...

If you could change **one** thing to help improve the teaching and/or learning experience at Michigan Tech, what would it be?
What would it look like if...

- we didn’t use grades to measure students’ learning?
- All MTU students had a global or community engagement experience?
- we used portfolios to assess learning outcomes?
- we had themed pathways through the general education program?
- courses were team-taught across disciplines?
- health & wellness, career/life design, ethics and culture, information & computing literacy were integrated into the curriculum for all students?
- faculty had more opportunities to innovate their courses?
- students declared missions instead of majors?
- we required students to fail at something?
- we had j-terms and may-mesters?
Reimagining Education for the 21st Century

- Next Gen General Education
- First-Year Experience
- Interdisciplinary Teaching & Learning
- Global and Community Engagement

IDEA hub
Innovate | Design | Engage | Act
thank you!!

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Leo Ureel (Computing)  
Danise  
Rick Berkey (PHC/Enterprise)  
Jon Sticklen (EF/CLS)  
Val  
Jeff Wall (COB)  
Casey  
...and hundreds of interviewees  

Jessie  
Abraham  
Laura  
Paul  
Jean  
Chris  
Mike
“We are called to be architects of the future, not its victims.”

- Buckminster Fuller
**design thinking** provides a useful set of tools and mindsets to tackle *wicked* problems

- **Empathize**
  Develop a deep understanding of the challenge

- **Define**
  Articulate the problem to be solved

- **Ideate**
  Brainstorm potential solutions (Wild ideas encouraged!)

- **Prototype**
  Build a representation of your ideas to present to others

- **Test**
  Share your prototyped idea with your users for feedback
Design Thinking Process

- **Research & Exploration**
  - Fall 2019-Spring 2020
- **Identify Opportunities**
  - Fall 2020-Spring 2021
- **Prototype & Test Concepts**
  - Fall 2021-Summer 2022
- **Concept Products & Draft Proposals**
- **Prototype**
- **Pilot Testing**
- **Final Product**
### Key Accomplishments to Date

<table>
<thead>
<tr>
<th>Period</th>
<th>Area</th>
<th>Accomplishments</th>
</tr>
</thead>
</table>
| Spring - Summer 2019 | 21st Century Education Task Force Design Sessions | - Friday PM Design Sessions  
- Identified key areas of focus using design process  
- Developed proposal & budget for IDEAhub  
- Formed working groups |
| Fall 2019 | Discovery & Define | - Hosted IDEAhub Kickoff Meeting  
- Conducted 100’s of interviews  
- Researched MTU history & benchmark programs  
- Stakeholder Mapping  
- Training & Workshops |
| Spring - Summer 2020 | Ideation & Concept Development | - Campus IDEAtion & Learning Goal sessions  
- Training & Workshops  
- Call for IDEAs Proposals  
- COVID19 Pivot - Faculty Learning Sessions |
| Fall 2021 | Prototype Development | - Developed frameworks for Essential Ed & First-year Experience  
- Prototype development of frameworks and concepts |
| Spring 2021 | Prototype & Testing | - Iterative prototype development  
- Sharing (testing) prototypes with stakeholder groups  
- Senate Proposal for Pilot Testing new GenEd concepts |
Prototype USLGs & Assessment

Aspirational learning goals: upon graduation, Michigan Tech students will be able to...

- creatively and collaboratively recognize and develop innovative solutions to transdisciplinary problems/opportunities
- function both independently and collaboratively in a rapidly changing global and technological society

An Assessment Process that is...
- Holistic
- Student-centered, reflection based
- Uses e-portfolios to capture signature works
- fosters badging & mini-credentialing
- Allows for use of co and extra-curricular experiences to demonstrate competency development
Interdisciplinary team-based design project, exploring majors, EML, health & wellness, ethics, DEI, cultural awareness, composition.

Themed-based pathways through general education (Humanities, Social Sciences, VPA, Core STEM)

Aligned with TF Initiatives

Certificate & Badging options

Competency development focused

Portfolio-based Assessment

HIP Learning opportunities

Signature project experience (undergrad research, enterprise, global/community engagement, leadership, EML...)

Experiential + Reflective learning, co-ops, co-curriculars, study away...

Themed-based pathways through general education (Humanities, Social Sciences, VPA, Core STEM)

Interdisciplinary team-based design project, exploring majors, EML, health & wellness, ethics, DEI, cultural awareness, composition
prototype first-year experience model

Community Building
- Extended Orientation Programming
- Career & Life Design
- Self-Authorship

Math / Science / Engineering / Computing Courses
- Integrated coursework around same theme as CORE Experience project
- Learning modules
- Half-semester courses

Coordination First-Year Support System
- Advising
- Peer Mentoring
- Learning Support
- Wellness

CORE Experience
- Writing & Global Literacy core
- UN Sustainability Goals themed with projects examined from different disciplinary perspectives
- Interdisciplinary team-based human-centered design project as possible centerpiece
- Competency based assessment (rather than grades)
- Reflection, critical thinking

J-Term / May-mester
- Community/Global Engagement Experiences
- Mini-semester courses

Community/Global Engagement Experiences
- Mini-semester courses
call for IDEAs
Prototype
Husky PAWs: Reflective Practices

Welcome to our Canvas resource course on reflective practices. These resources and sample assignments for reflection are made available to help promote integrated learning in your classes. You can import assignments into your own Canvas courses directly from this course and adapt them for your own use. We hope you will also choose to add your own versions of the assignments back into this resource course to share with others.
Welcome to Local Literacy Experiences

"Experiencing Landscapes"

https://sites.google.com/view/localliteracyexperiences

For those who have access to Canvas Commons, these modules are also available for download and import into your existing courses, simply search "Local Literacy."

Project team: Erika Vye, Valoree Gagnon (team leads); Sarah Green, Kathy Halvorsen, Chelsea Schelly
Husky Living Lab for Sustainability

Sustainable Campus Systems Videos

Team Lead: Chelsea Shelly
### Essential Ed & First-Year Experience Prototype & Pilot Planning

<table>
<thead>
<tr>
<th>January 2021</th>
<th>February 2021</th>
<th>March 2021</th>
<th>April 2021</th>
<th>May 2021...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prototype Development</strong></td>
<td><strong>Prototype Refinement #1</strong></td>
<td><strong>Prototype Refinement #2</strong></td>
<td><strong>Proposal &amp; Pilot Development</strong></td>
<td><strong>Proposal &amp; Pilot Development</strong></td>
</tr>
<tr>
<td>Finalize initial set of prototypes and process for sharing prototypes</td>
<td>Refine &amp; Revise Prototypes</td>
<td>Finalize Prototype Concepts</td>
<td>Develop draft Proposals and Pilot Plans from prototype concepts</td>
<td>Begin Piloting Concepts in Fall 2021</td>
</tr>
<tr>
<td>Share w/ initial stakeholder groups</td>
<td>Share out with Campus Community (deans, chairs, departments, registrar, student groups, etc.)</td>
<td>Share with Key Stakeholder Groups (GenEd Council, Registrar, Students, etc.)</td>
<td></td>
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What does success look like?

By the end of Summer 2021, we plan to have...
❖ Essential and First-year Experience frameworks and components designed and ready for piloting in Fall 2021
❖ Draft senate proposals developed and circulated for review & feedback

Ultimately, we expect to improve the student experience through...
❖ Funding support (gift & grant) to allow IDEA hub to continue to provide space for conversations and innovations across campus
❖ A more flexible, connected and agile general education program
❖ A simplified set of University learning goals and assessment program built around competency development
❖ A more holistic first-year experience that emphasizes the major as a way to achieve the students’ mission, health & well-being, and community
❖ Positive impact to recruiting & retention, and life/career success post-graduation
Questions?

Want to get involved?

For more info on the 21st Century Education Tech Forward Initiative, contact:

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