

# ACADEMIC RESILIENCE SERIES IN TEACHING & LEARNING: **BUILDING ACADEMIC RESILIENCE ACROSS THE CURRICULUM**



**Welcome!**

While we wait to get started, please say hi in the chat and tell us something you're looking forward to this summer!



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## WHO WE ARE



**JESSIE RICHARDS (she/her)**  
**Curriculum Development  
Specialist**

Office of the Vice-Provost, Innovations  
in Undergraduate Education



**RAHUL BHAT (he/him)**  
**Resilience Programming Lead**  
Academic Resilience

Initiatives, Academic Success



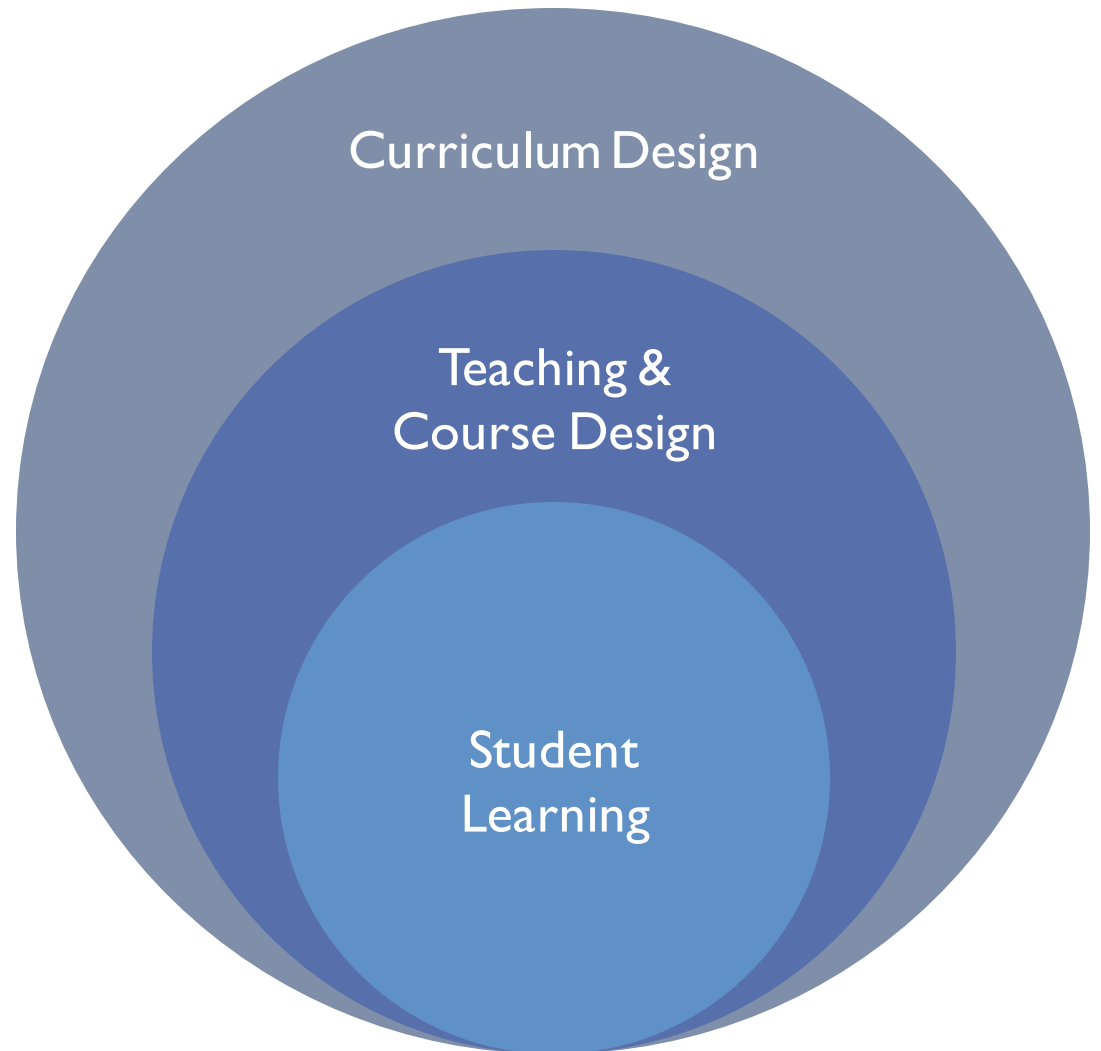
**KATE BOWERS (she/her)**  
**Learning Strategist – Resilience  
Focus**

Academic Resilience  
Initiatives, Academic Success

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# ACADEMIC RESILIENCE SERIES OVERVIEW

In this series, we have aimed to build an understanding of academic resilience by looking at experiences of student learning, practices for teaching and course design, and approaches for curriculum design.



# OUR PLAN FOR TODAY'S SESSION

## Agenda

- 1) Revisiting Academic Resilience
- 2) Influence of Curriculum on Academic Resilience
- 3) Faculty Panel w/ Q&A
- 4) Exploring AR by Year of Study
- 5) Sharing Practices & Discussion
- 6) Take-aways & Next Steps

## Ideas we will be exploring in this emergent session:

- Learning challenges evolve
- There is no 'one-size-fits-all' approach
- Intentional scaffolding across courses is possible & helpful to students

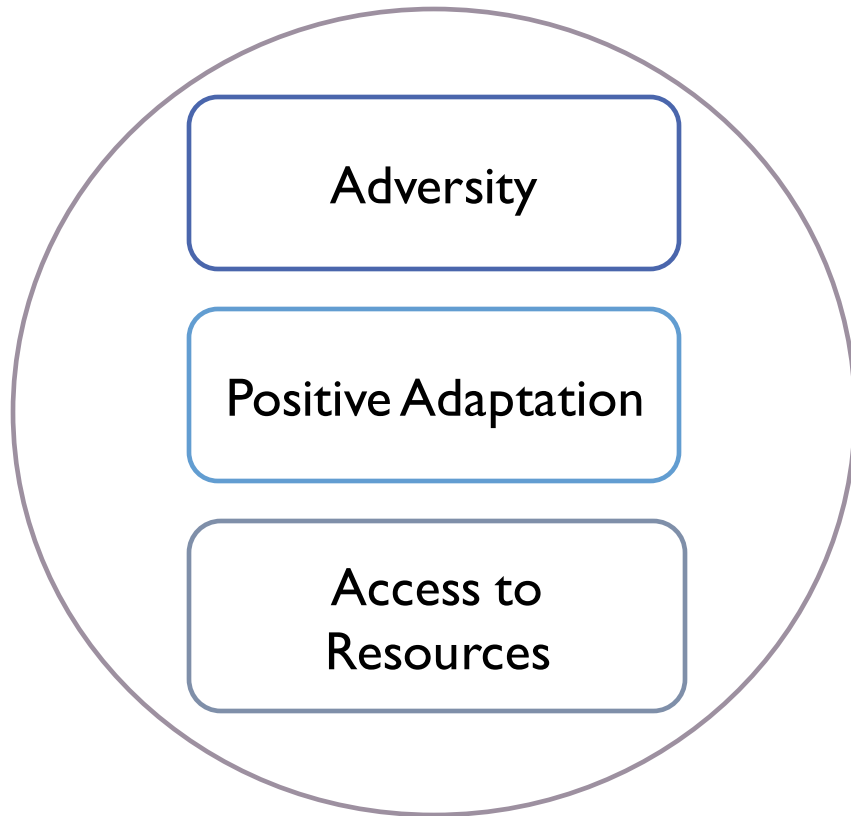
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# MENTI POLL: HOW ARE STUDENTS SOCIALIZED INTO YOUR DISCIPLINE?



Scan the QR code with  
your phone or go to  
**menti.com** and enter  
code: **96 53 25 5**

## REFRESHER: RESILIENCE DEFINED

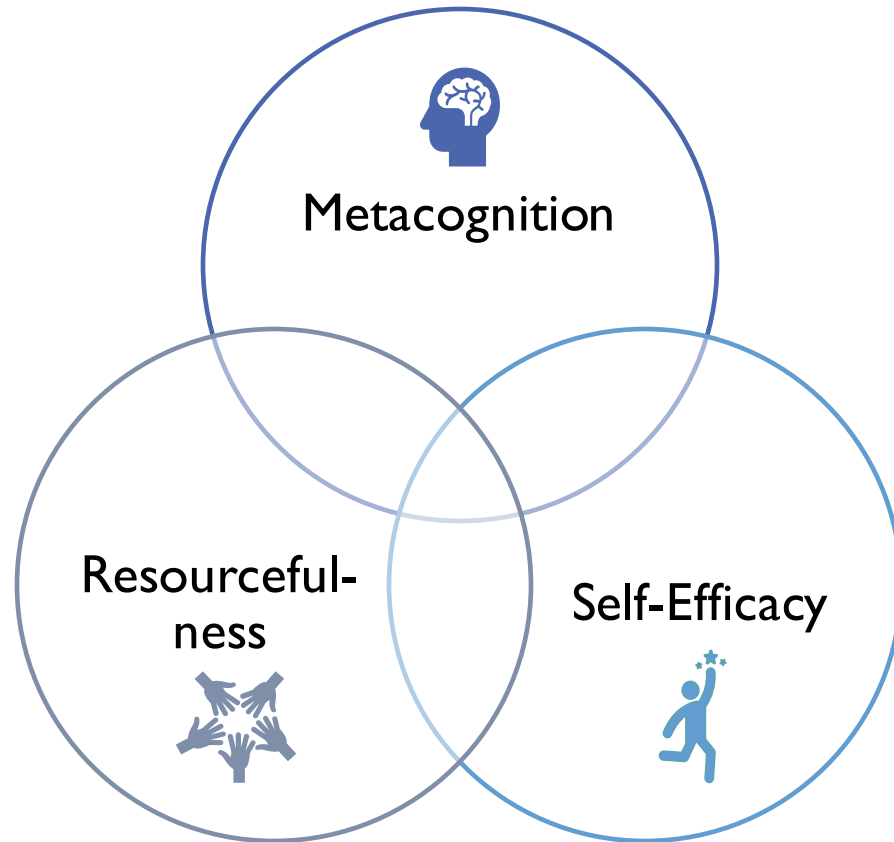


- Resilience is the capacity to meet and positively adapt to adversity and the capacity to bounce back from setbacks.
- Resilience is not just an individual capacity – it is also the capacity of a community to provide relevant and accessible resources of support.

"We are resilient when the world around us provides us with the resources we need to do well."  
-Michael Ungar

(Ye, Strietholt, Blömeke, 2021; Holdsworth, Turner, and Scott-Young, 2018; Ungar, 2016; Martin, 2013.)

# REFRESHER: RESOURCES TO FOSTER ACADEMIC RESILIENCE



**Based on our experience, the aspects we want to discuss are:**

- Metacognition
- Self-efficacy
- Resourcefulness

**We have prioritized these because:**

- They support and reinforce one another
- They are relevant to the context of student learning
- They are doable!

# REFRESHER: TEACHING PRACTICES THAT SUPPORT RESILIENCE



## Metacognition

- Support the application of effective study strategies
- Engage students in the classroom in active reflection
- Provide opportunities for students to share muddy points and acknowledge desirable difficulty



## Self-Efficacy

- Provide opportunities for productive successes and productive failures
- Explore opportunities for students to learn from others with role modelling to normalize difficulty
- Provide exemplars before or after an assignment or exam



## Resourcefulness

- Encourage students to identify their needs and access relevant resources
- Model the thinking processes involved in your field
- Encourage positive coping strategies – for both learning and well-being

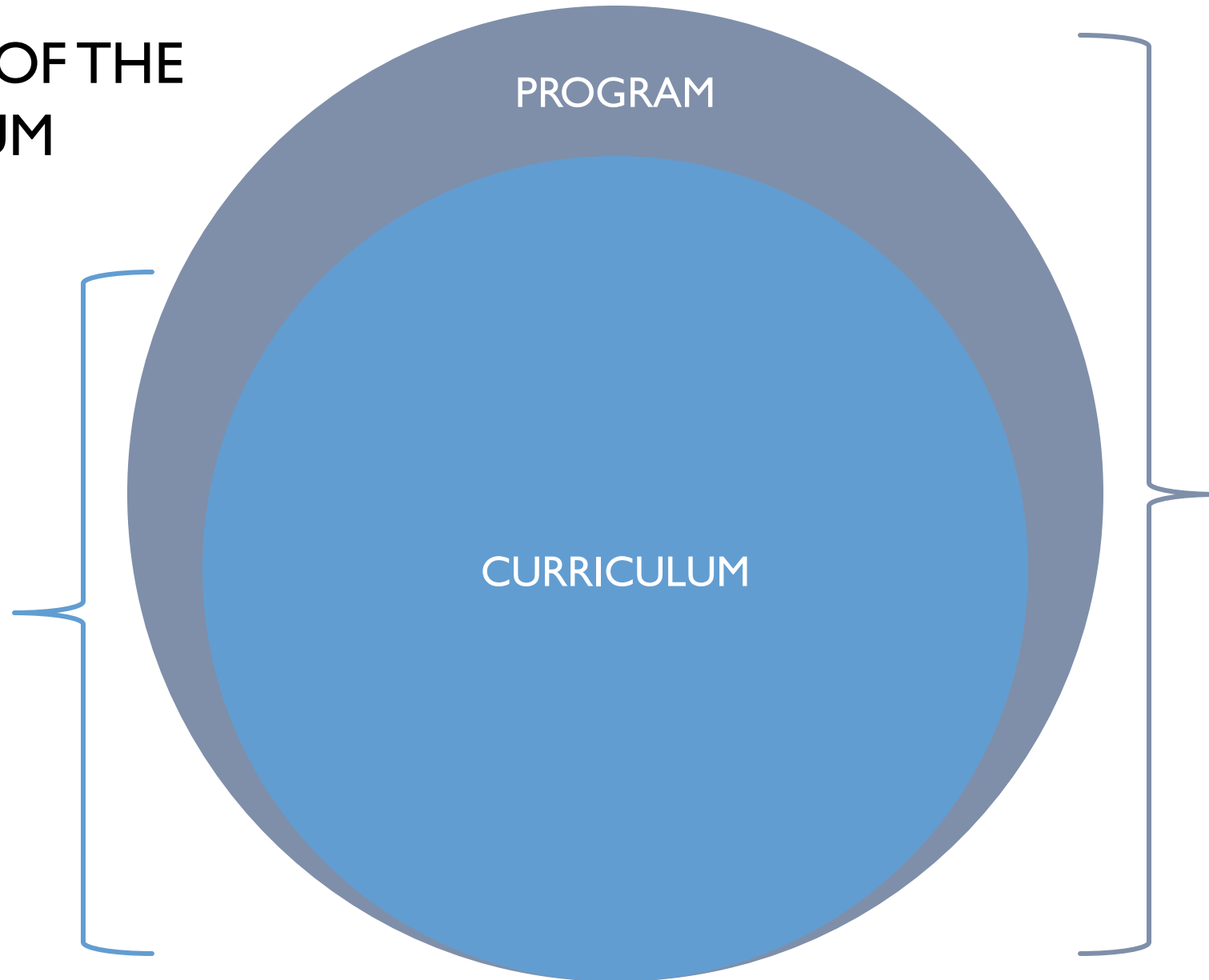


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# OVERVIEW OF THE CURRICULUM

## The curriculum includes...

- Organization of courses
- Approaches to teaching & learning
- Types of assessments
- Manifestation of disciplinary norms
- Etc.



## The program includes...

- Resources (faculty, teaching assistants, etc.)
- Space & infrastructure
- Admissions
- Student services
- Etc.

# CHALLENGES & OPPORTUNITIES FOR ACADEMIC RESILIENCE IN THE CURRICULUM



Course Availability



Course Sequencing



Disciplinary Norms



Learning Challenges at  
Different Levels of Study



Pedagogical Choices



Low level of individual  
control

High level of individual  
control

What other elements of curricula  
might provide challenges or  
opportunities for the development of  
academic resilience?

What does your spectrum look like?  
Where do you feel you have the  
most agency?

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# FACULTY PANEL

HOW IS ACADEMIC RESILIENCE ADDRESSED IN DIFFERENT DISCIPLINES?



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## OUR PANELISTS



**MARIA ASSIF**  
**Associate Professor,**  
**Teaching Stream**  
Department of English, UTSC



**SARAH MAYES-TANG**  
**Assistant Professor,**  
**Teaching Stream**  
Department of Math, UTSG



**MICAH STICKEL**  
**Professor, Teaching Stream**  
Department of Electrical and  
Computer Engineering, FASE

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## QUESTIONS FOR PANELISTS

1. What difficulties do you notice students in your program/discipline experience at different years of study? How do learning challenges evolve from first & second year through third & fourth year?
2. How have you made changes to an individual course to address students' development of metacognition, self-efficacy, and/or resourcefulness? How does the course's placement within the curriculum influence your understanding of students' needs in developing academic resilience? (E.g. year of study, the type of course, what the course prepares students for, etc.)

# ENGLISH @UTSC: KNOW THYSELF

## First-Year Courses

- **Student population:** Over 50% of students are non-English majors /90% with at least one part-time job
- Focus on **skill sets** and **ways of thinking and being**
- Exposure to other English **courses/disciplinary methods** and **program pathways**
- Celebration of their **home languages** and **lived/living experiences**
- Prioritization of **student mental health**

## Upper-Level courses

- Student population: 50% apply to **graduate programs** (10% English)
- **Undergraduate English conference**
- Integrating **CEL** opportunities
- Expand **English programs and courses**
- **Mentorship** spaces for students (by Alumni and faculty)

## Faculty/Program Levels

- Close ties with our **department student groups**
- Open conversations about **flexibility** in course **sequencing**, program **requirements**, and department **identity(ies)**
- **Pedagogical** “buddy”, circles, and workgroups
- **Assignments first!**

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# MATH @UTSG: COMMON PROBLEM IN ALL YEARS OF MATH: STUDENTS THINK THEY KNOW WHAT MATH IS, BUT THEY DON'T.

## First year challenges

- Math is all about formulas and algorithms. There is one way of doing things.
- **Learning challenge:** Working to *understand* math, not just “get” the “right” answer.
- **Tasks:** Prediction tasks (e.g. population modeling). Emphasis on explanation and not on getting the right answer.

## Second year challenges

- Logic that just doesn't make sense (weak metacognition).
- **Learning challenge:** Cannot genuinely understand whether their own mathematical arguments make sense or not.
- **Tasks:** Read others' work. Multiple attempts & reflection at end (“I feel sorry for the TA who had to read this!”)

## Third year challenges

- There is a “best way”. There are “math people” & I might not be a math person (just here by luck...).
- **Learning Challenge:** Trusting the developing mathematical intuition and making leaps in logic, making connections between concepts. (Self-Efficacy!).
- **Tasks:** Emphasize verbal communication and “talking out” ideas with others; presentations.

# APSI 00HI: ORIENTATION TO ENGINEERING

## A REQUIRED COURSE FOR MOST\* FIRST-YEAR ENGINEERING STUDENTS



### Metacognition

- **Learning how to learn** is discussed and emphasized
- Sharing of **proven and effective study and learning strategies**
- **Reflecting** on their own approach to learning



### Self-Efficacy

- **Normalizing the transition experience** through connection with upper-year mentors
- Having other professors in first-year openly discuss their **experience with failure**
- **Alumni stories** and presentations



### Resourcefulness

- **Specific presentation and discussion of relevant resources** is incorporated throughout the summer and fall term
- **Community building:** Upper-year mentors share their own helpful resources, and normalize help-seeking behaviour

\* Course is taken by all first-year engineering students in the fall term, except those in the Engineering Science program



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# PANEL Q&A



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# CONSIDERATIONS FOR ADDRESSING CHANGE AT THE CURRICULAR LEVEL

## UNDERSTANDING YOUR STUDENTS

- What are the demographics of students? (E.g., international, commuter, Major/Minor/Non-program, etc.)
- What is the life situation of the learners? (E.g., working, family, professional goals, etc.)
- What prior knowledge, experiences, and perceptions do students usually have about the discipline?
- What are their learning goals and expectations?

## UNDERSTANDING YOUR DEPARTMENT

- How collaborative are faculty?
- How does curriculum planning happen?
- How does academic change happen?

## UNDERSTANDING YOUR CURRICULUM

- How tightly or loosely structured is the curriculum?
- Are there sets of related courses?
- Where are points of challenge for students in the curriculum?
- Is there a shared understanding of how student learning (broadly) develops across the program?

# ADDRESSING ACADEMIC RESILIENCE THROUGH THE CURRICULUM

## WITH COURSE DESIGN

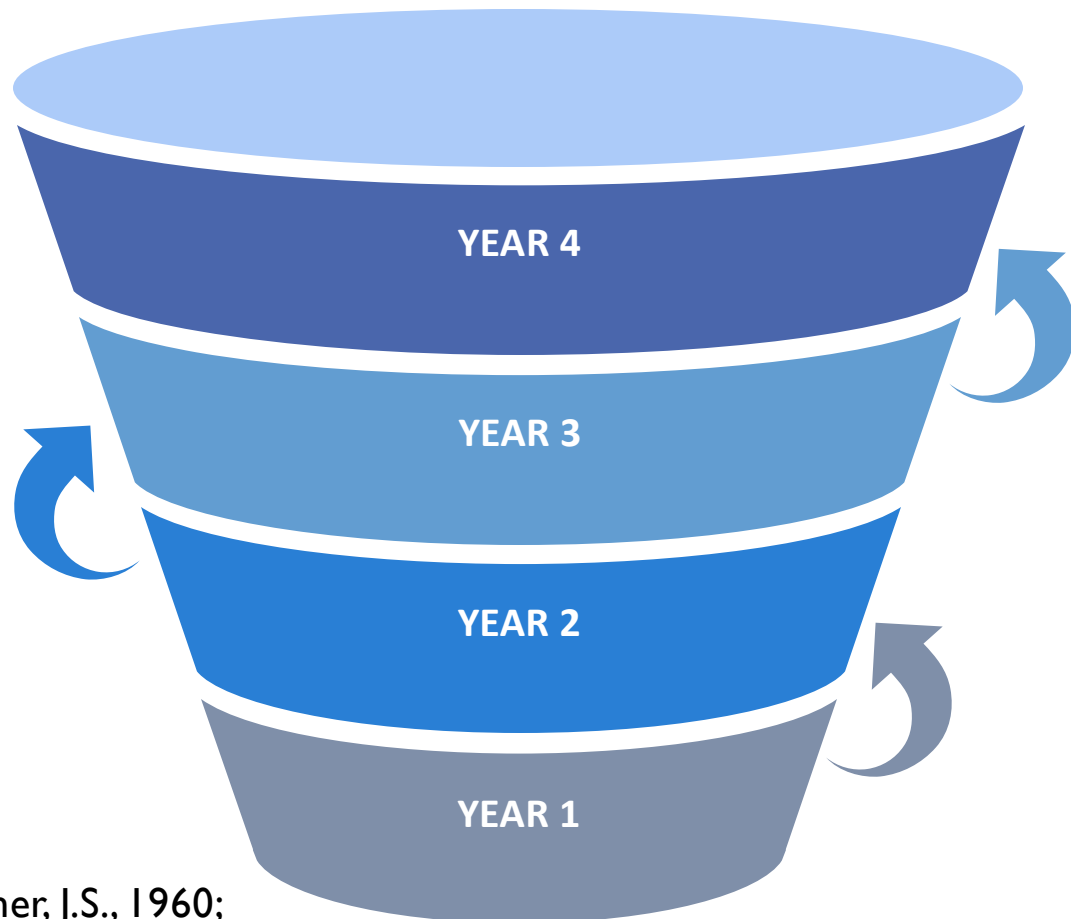
- Syllabus design
- Lesson design & sequencing
- Assessment design
- Teaching & learning strategies
- Classroom culture strategies

## WITH STUDENT SUPPORTS

- Workshops on research skills from librarians
- Workshops on learning & study techniques from learning strategists
- TA training through CTSI
- And others...familiarize yourself with other relevant supports

**Course-level interventions can be placed in strategic spots throughout the curriculum to support students' journey through the program**

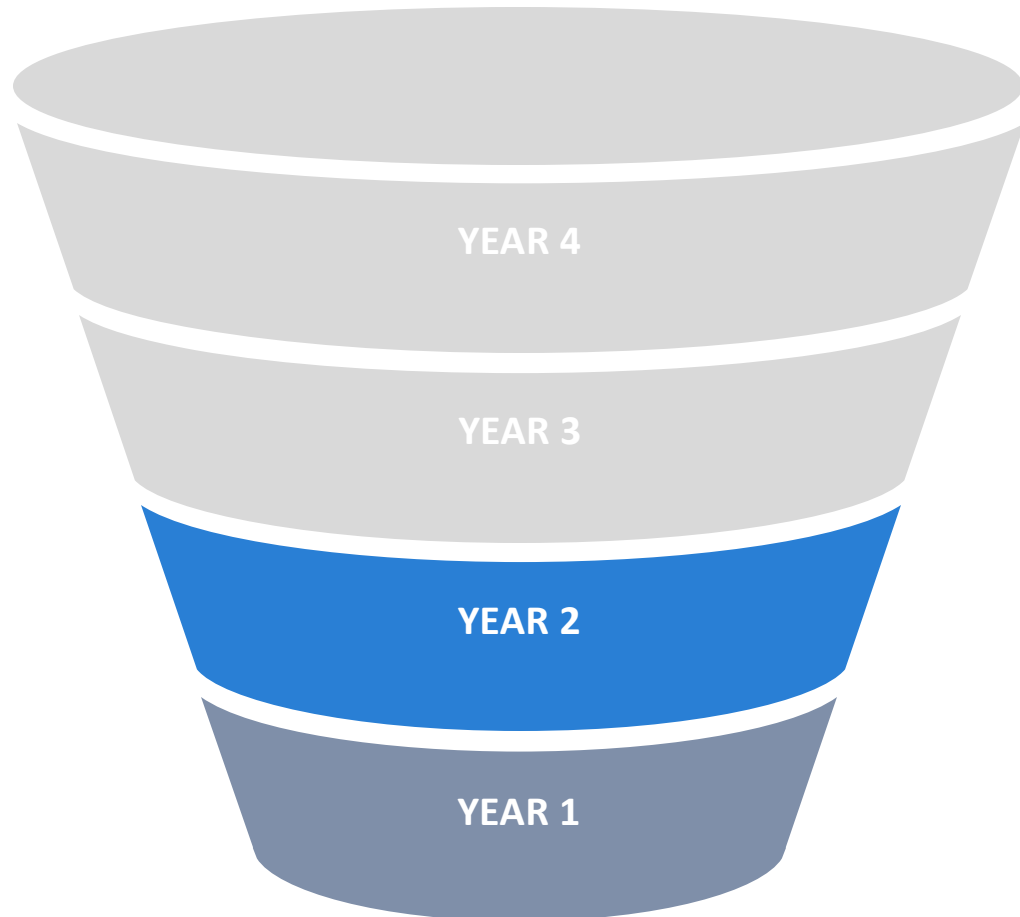
# CONCEPTUALIZING STUDENT LEARNING TRANSITIONS USING THE SPIRAL CURRICULUM MODEL



- Hallmark of the approach: “...an iterative revisiting of topics, subjects, or themes throughout the [curriculum]” (Harden & Stamper, 1999, p. 141)
- Move from simple to complex development
- Focus on higher-order development

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# CONSIDERING ACADEMIC RESILIENCE THROUGH STUDENT LEARNING TRANSITIONS



## METACOGNITION:

- How do you account for differences between high school and university learning?
- What are common academic problems in your discipline and how do students solve them?

## SELF-EFFICACY:

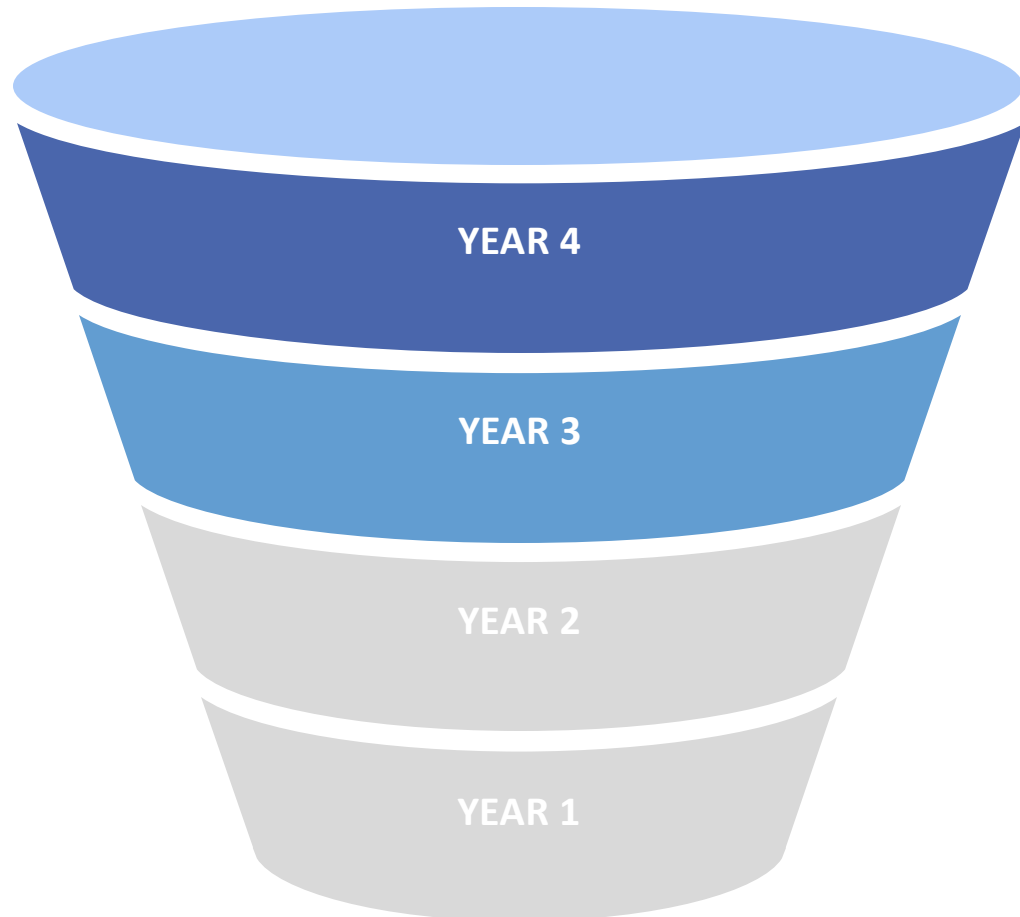
- What opportunities do students have to know and apply their strengths?
- How can students grow after experiencing academic difficulty?

## RESOURCEFULNESS:

- What resources and supports are most significant in their early years?
- How can students practice using a resource within a course?

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# CONSIDERING ACADEMIC RESILIENCE THROUGH STUDENT LEARNING TRANSITIONS



## METACOGNITION:

- How do expectations change in the discipline?
- What opportunities do students have to practice new skills?

## SELF-EFFICACY:

- What new learning and life challenges emerge that may undermine students' self-efficacy?

## RESOURCEFULNESS:

- What resources do students need to be successful during their later years?
- Do students have the knowledge and experience to use necessary resources effectively?

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# SMALL GROUP DISCUSSION

WHAT WOULD IT LOOK LIKE TO ADDRESS ACADEMIC RESILIENCE IN YOUR PROGRAM(S)?



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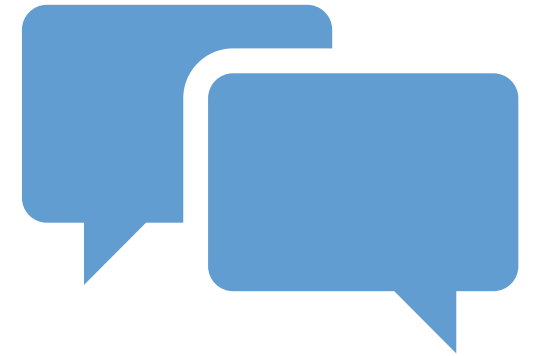
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## DISCUSSION PROMPTS

- What are the enabling and constraining factors for fostering academic resilience in your program? (Consider: how well faculty collaborate, nature of the discipline, etc.)
- What do students struggle with at different points in the program?
- What are some ways students' development of academic resilience is already supported by the curriculum/program? What are some small changes you could make to better support students' development of academic resilience?





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## SESSION TAKE-AWAYS

Curricular structure & other factors present challenges & opportunities for students' development of academic resilience throughout a program

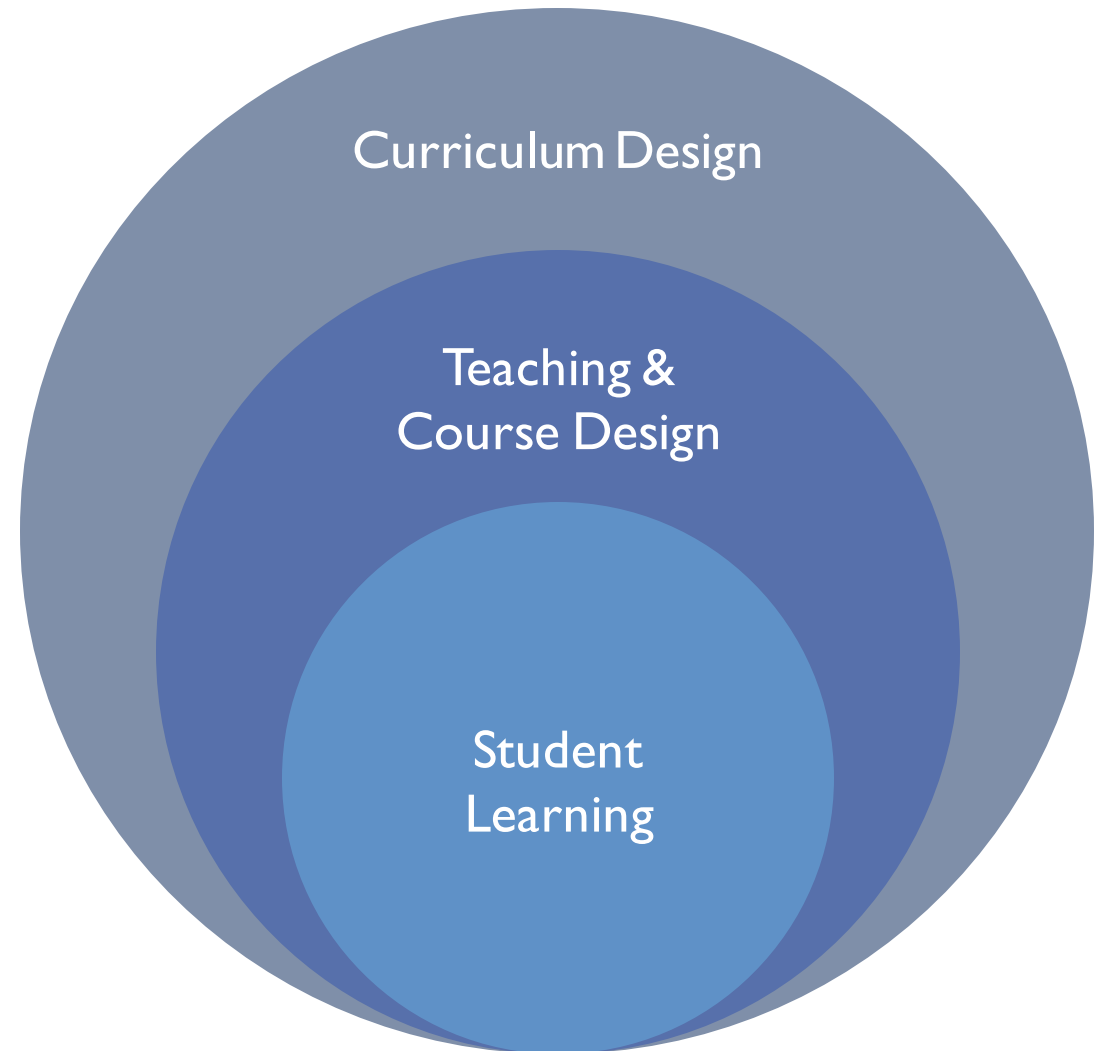
Students experience different kinds of challenges to academic resilience at different levels of study

An understanding of students', your department, and the curriculum can help you consider how to develop students' capacity for metacognition, self-efficacy and resourcefulness throughout a program

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## REFLECTION ON THE SERIES

In this series, we have aimed to build an understanding of academic resilience by looking at experiences of student learning, practices for teaching and course design, and approaches for curriculum design.



## WHAT COMES NEXT?

### LOOKING FOR SUPPORT FOR YOUR STUDENTS?

Connect with Kate & Rahul to book a consultation – they can set up workshops for your students and much more!

### LOOKING FOR SUPPORT ON COURSE DESIGN?

CTSI has developed three clinics focused on fostering academic resilience through course design:

1. **Designing Courses for Academic Resilience**, Tue Jun 21, 2022 from 10am-12pm (In-Person)
2. **Design Lessons to Foster Academic Resilience**, Wed Jun 22, 2022 from 1-3pm (Online)
3. **Build a Supportive Course Culture Through a Learner-Centered Syllabus**, Thu Jun 23, 2022 from 10am-12pm (In-Person)

### LOOKING FOR SUPPORT ON CURRICULUM DESIGN?

Connect with Jessie to set up a consultation with her, Kate & Rahul – we will work together to develop a process for integrating academic resilience strategies throughout your curriculum.

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# THANK YOU!

ANY QUESTIONS?



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