Georgia Tech Center for Teaching and Learning

COURSE & SYLLABUS DESIGN

FUNDAMENTALS IN TEACHING AND LEARNING FOR POSTDOCS

CREATING THE NEXT®

COURSE & SYLLABUS *DESIGN*

Art

A course can be a creative expression of style, priorities and perspective, imbued with your own experiences and vision.

Science

The basic goal of a course is for your students to learn, and there is a lot that we know about how to effectively promote student learning.

TODAY'S OBJECTIVES

By the end of this session you should be able to:

- explain what it means for components of a course to be **aligned**, and explain why **alignment** matters;
- describe the process of **backward course design**, and the role of **learning objectives** in the process;
- describe the key features of **effective learning objectives**;
- list the **basic components** for a course syllabus;
- articulate the **tradeoffs** associated with various **course policy decisions**.

COURSE DESIGN

- Instructional Strategies
- Assessments
- Learning Objectives

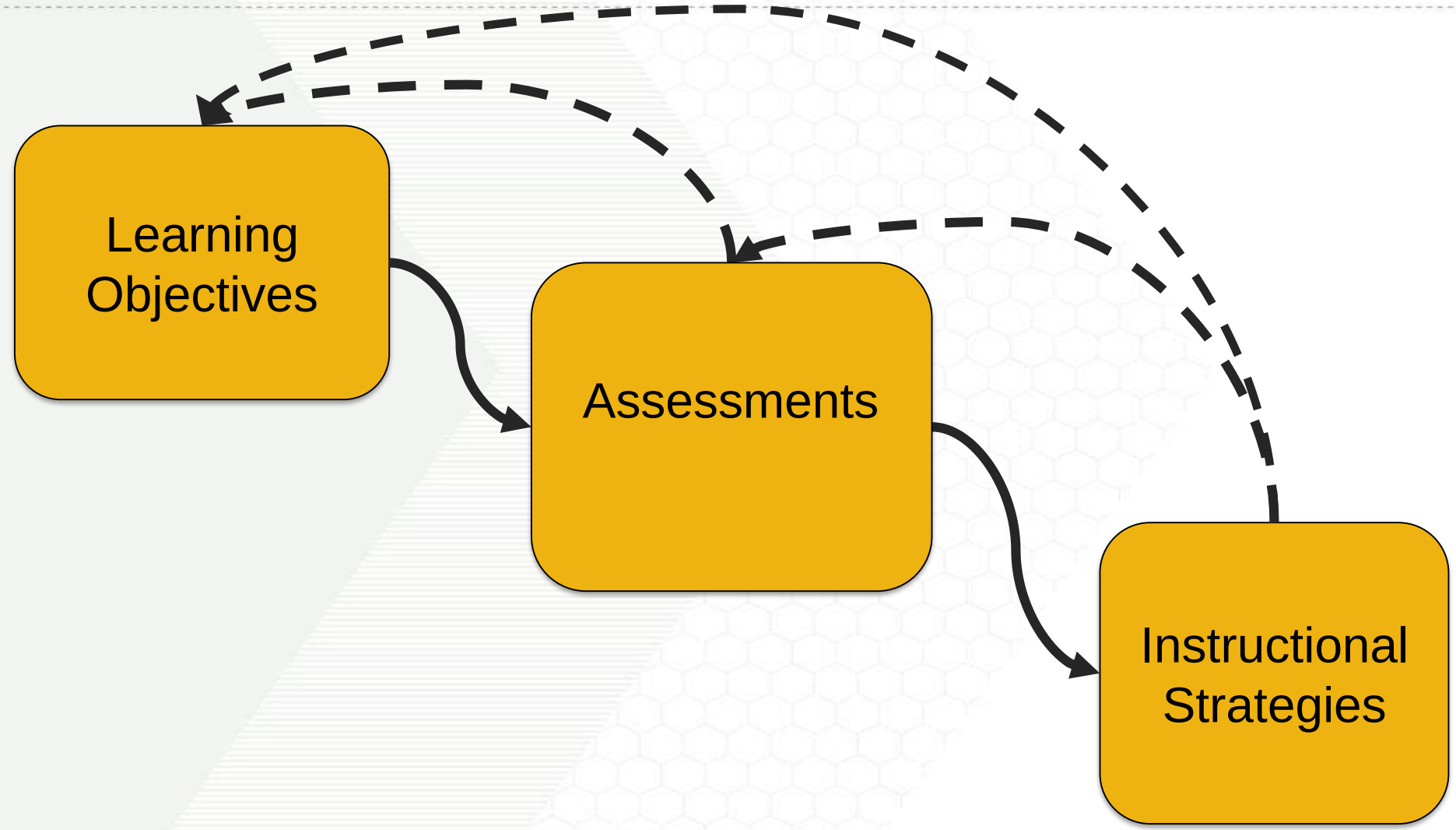
ACTIVITY
THINK ABOUT A SPECIFIC COURSE YOU MIGHT TEACH

1. What is one thing you want students to learn in your course?

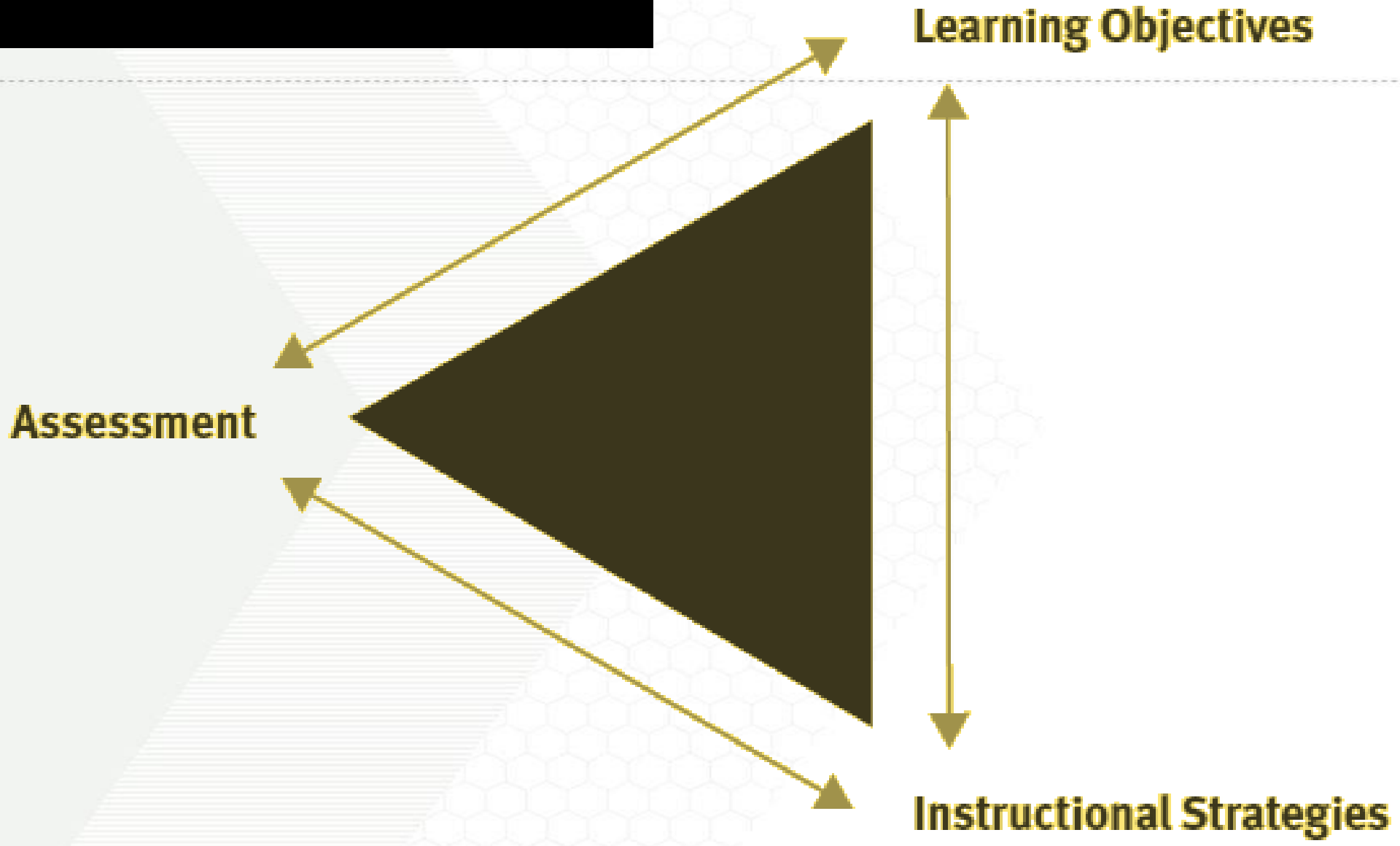
2. How will you determine whether students have learned that one thing?

3. What is one thing that will happen during your class that will help students learn that one thing?

USE BACKWARD DESIGN TO DESIGN YOUR COURSES



ALIGN THE COMPONENTS OF YOUR COURSE



LEARNING OBJECTIVES

- Student-Centered
- Action-Oriented
- Measurable

SAMPLE LEARNING OBJECTIVES

Upon successful completion of this course you should be able to:

- Solve problems using matrix techniques and algorithms.
- Recognize and recall major linear algebraic definitions and theorems.
- Develop short but rigorous proofs of true mathematical statements and construct counterexamples for false statements.
- Apply major linear algebraic theorems to prove other results.
- Interpret linear algebra techniques and results as geometric operations and structures in 3-dimensional space.

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EFFECTIVE LEARNING OBJECTIVES ARE…

1. Student-centered

i.e. focus on what your students will learn

2. Action-oriented

i.e. focus on the skills students will gain, and what they will be able to do

3. Measurable

i.e. it should be easy to identify how you would check whether a student has mastered the relevant skill

Verbs for Bloom's Taxonomy

Remember	Understand	Apply	Analyze	Evaluate	Create
Arrange	Classify	Calculate	Combine	Appraise	Arrange
Define	Describe	Construct	Figure	Argue	Assemble
Locate	Identify	Demonstrate	Find	Assess	Compose
Recall	Indicate	Estimate	Sketch	Defend	Create
Recite	Organize	Illustrate	Solve	Estimate	Design
Describe	Interpret	Interpret	Predict	Judge	Devise
Repeat	Illustrate	Appraise	Change	Predict	Formulate
Identify	Reorganize	Contrast	Survey	Qualify	Invent
Select	Translate	Criticize	Compare	Rate	Manage
Quote	Paraphrase	Diagnose	Diagram	Support	Modify
Label	Summarize	Identify	Examine	Critique	Organize
Copy	Transform	Classify	Test	Recommend	Plan
List	Discuss		Modify		Prepare
Name	Explain				Produce
State	Defend				Propose
	Compare				Set Up
	Report				Verify
	Restate				Construct
	Review				Develop
	Rewrite				

Simple & Concrete

Complex & Abstract

LEARNING OBJECTIVES WITH PROBLEMS

In this course you will:

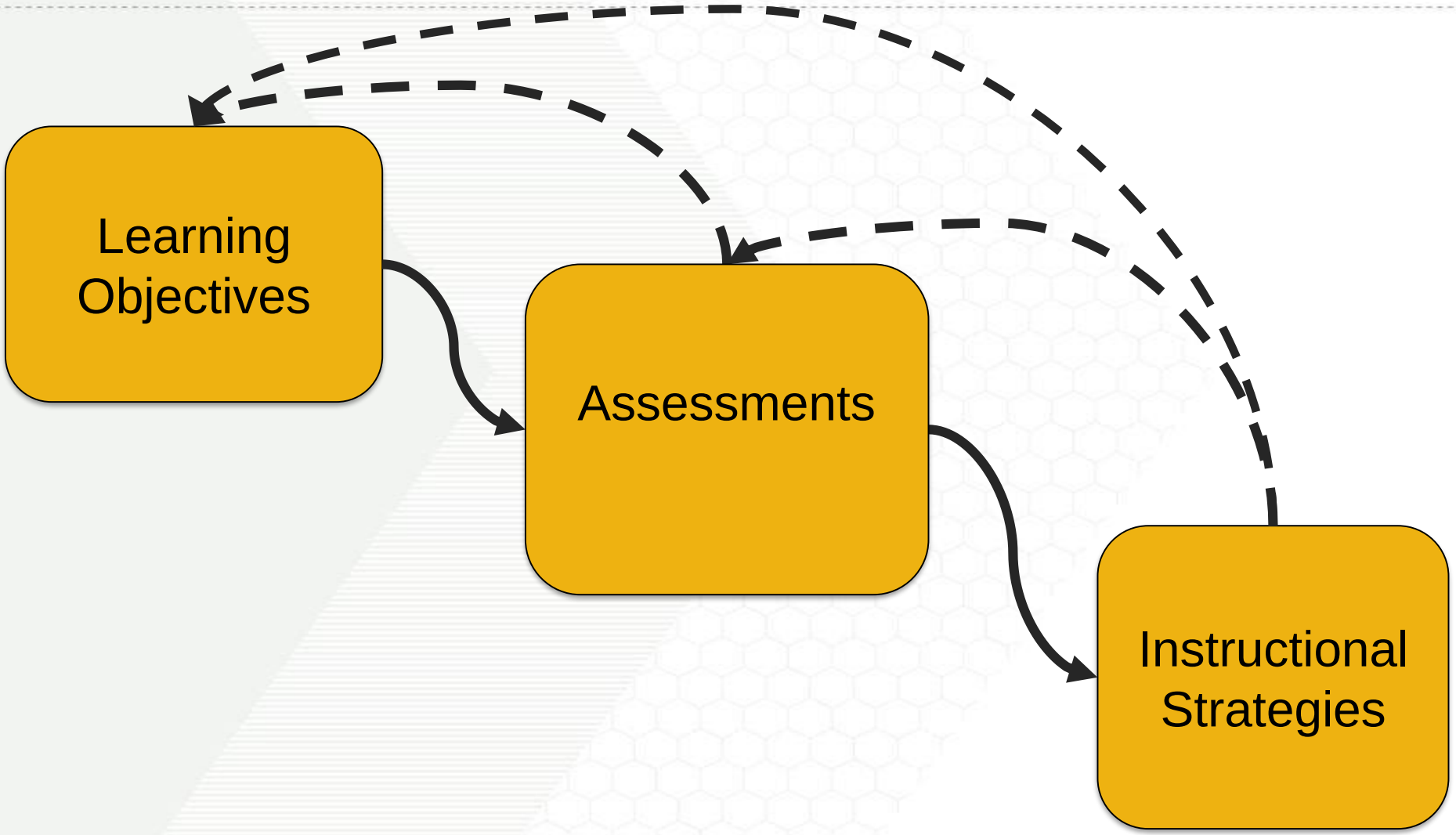
- gain an appreciation for how the history of western thought influences current debates in the philosophy of religion;
- learn about arguments for and against the existence of God;
- understand the role of free will in contemporary debates in science and religion;
- write papers that reflect your ability to interpret and critically analyze a variety of religious claims, and the philosophical arguments behind them.

ACTIVITY
FIX THE LEARNING OBJECTIVES

Work with your neighbours to revise the learning objectives on the previous slide.

Aim to make sure the learning objectives are **student-centered**, **action-oriented**, and **measurable**.

USE BACKWARD DESIGN TO DESIGN YOUR COURSES



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JOIN US AT CTL'S COURSE DESIGN STUDIO

May 18, 21, 22, 24

9 AM – 12 PM

SYLLABUS DESIGN

1. Course Logistics
2. Course Description
3. Learning Objectives
4. Course Structure
5. Grade Breakdown
6. Grading Details
7. Course Materials
8. Course Policies
9. Class Schedule

SAMPLE SYLLABI

Look through the sample syllabi that have been handed out. Discuss them with your neighbours.

- Does anything about them surprise you?
- Which of the elements would you include/avoid in your own syllabus?

ADDITIONAL SYLLABUS COMPONENTS

1. Rubrics
2. Your expectations of your student
3. What your students can expect from you
4. Advice to students about how to succeed in this course
5. Advice to students about how to do task of type X well
6. Information about labs/recitations/etc.
7. Other campus resources (i.e. Tutoring, Communications Center, Counseling, etc.)

COURSE POLICIES

- ❑ Academic Integrity
- ❑ Accommodations for students with disabilities
- ❑ Attendance/Participation
- ❑ Collaboration
- ❑ Extensions, late assignments, & re-scheduled/missed exams
- ❑ Student use of mobile devices in the classroom
- ❑ Policies related to unique features of your course

Sample 1: Punishing Tone

"If for some substantial reason you cannot turn in your papers or take an exam at the scheduled time you must contact me prior to the due date, or test date, or you will be graded down 20%."

Ishiyama & Hartlaub (2006)

Sample 2: Rewarding Tone

"If for some substantial reason you cannot turn in your papers or take an exam at the scheduled time you must contact me prior to the due date, or test date, or you will only be eligible for 80% of the total points."

Ishiyama & Hartlaub (2006)

STUDY RESULTS
TONE IN YOUR SYLLABUS

- Rewarding tone produced a statistically significant increase in student perception of the approachability of the instructor.
- Students with a high GPA (3.00 and above) perceived the course as more difficult when the punishing tone was used.
- Freshmen and sophomores were most affected by the wording differences.

Ishiyama & Hartlaub (2006)

A COURSE POLICIES CHECKLIST

- ❑ Academic Integrity
- ❑ Accommodations for students with disabilities
- ❑ Attendance/Participation
- ❑ Collaboration
- ❑ Extensions, late assignments, & re-scheduled/missed exams
- ❑ Student use of mobile devices in the classroom
- ❑ Policies related to unique features of your course

What are the pros & cons of requiring attendance in a class?

QUESTIONS TO CONSIDER
ATTENDANCE & PARTICIPATION

- How will attendance contribute to my students' achievement of our **learning objectives**?
- What is the maturity level/experience of my students, and what does that say about my need to **support**/force them to make **good choices**?
- What **resources** do I have at my disposal for tracking and/or grading attendance and/or participation?
- What is my **rubric** for grading attendance and/or participation?

What are the pros & cons of allowing students to collaborate on their work?

QUESTIONS TO CONSIDER
COLLABORATION

- How will (not) allowing students to collaborate on an assignment contribute to their achievement of your **learning objectives**?
- How will I **identify and follow-up on** cases where students have not worked within my policy?
- What counts as **acceptable use of outside resources** for graded work? What **method** should students use to **report** their use of outside resources?
- Are the **links** in your syllabus up to date?

HOMEWORK
FOR FEBRUARY 28TH

Create a syllabus draft for a course you might teach.

See http://ctl.gatech.edu/resources/syllabus for a syllabus template.

REFERENCES

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