

Gamification & Learning in Higher Ed

Gamifying Classroom Components

18 March 2025

**Gamifying
Classroom
Components**

**Designing &
Implementing
a Gamified
Class**

**What is
gamification?**

**Core Elements
& Tools**

**Using the
MakerLab**

**Implementation
Work Day**

**Your Gamified
Class**

Login Streak Bonus!



Let's Gamify these Key Classroom Elements



Syllabus



Blackboard



Tests

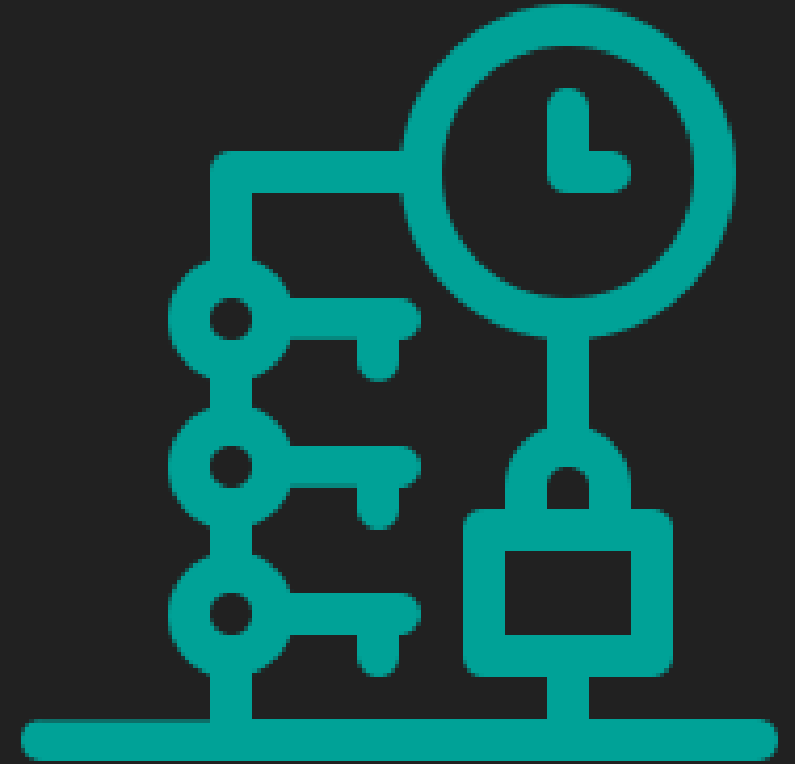



Attendance

Syllabus Escape Room


Incentivize and gamify students inventorying and interrogating your syllabus

- Ask them to find key items
- Highlight the important tasks or projects they need to flag
- Challenge them to reflect on why a policy is in place



 **Puzzle 1: The Office Hours Vault**
"The key to success is knowing when to ask. I'm always here for you, but not on campus 24/7. When and where can you find me?"


A fun twist? Have students come find your office and reward them with some XP or an "item drop"

 **Unlock Code:** (The correct office hours listed in the syllabus)


 **How to Implement:**

In-person: Have students find the office hours in the syllabus and write them down to show the instructor or TA.

Online: Use a Google Form where they must enter the correct office hours before moving on.

 **Puzzle 2: The Grading Gridlock**
"Some tasks are small, some weigh more. To reach the goal, you must explore. What kind of task or assignment is worth the most?"


Emphasizes that not all tasks are created equal. Could also emphasize the importance of small tasks like, "If I never complete the homework on time what the highest grade I could earn?"


 **Unlock Code:** (The highest-weighted assignment in the grading breakdown)

 **How to Implement:**

In-person: Provide a multiple-choice sheet where students circle the correct answer.

Online: A dropdown menu or short-answer question in a Blackboard quiz.

 **Puzzle 3: The Deadlines Dilemma**
*"Wait too long, and doors will close.
When must the first big task be
completed?"*

 **Unlock Code:** (The date of the first major assignment)

 **How to Implement:**

In-person: Have hidden envelopes with different due dates; only the correct one has the next clue.


Online: A short-answer question that requires the exact due date.

You can also use something like this to highlight your late or missed work policies.



Puzzle 4: The Plagiarism Paradox

"If you copy, if you steal, your grade will surely take a hit. Where can you find the rule that tells you this?"

 **Unlock Code:** (The section in the syllabus about academic integrity)



How to Implement:

In-person: Have students highlight the relevant passage in the syllabus.


Online: A fill-in-the-blank or dropdown selection in a quiz.


I love to emphasize this part with posing “What if” scenarios and asking the students how they would handle them using the student handbook and syllabus policies (great place to bring us using GenAI too!).

 **Final Challenge: The Course Success Treasure**

"You've cracked the code and reached the chest! But one final test remains. Tell me—what is one key to success in this course?"

Let's remember why we're here!

 **Unlock Code:** (Any key takeaway from the syllabus—students must write their own answer!)

 **How to Implement:**
In-person: Have students write responses on sticky notes to share.
Online: A short reflection question.

BIO 101: The Quest for Life – An Adventure into Biology

Semester: Fall 2025

Instructor: Dr. Brittany Peterson

Office Hours: By appointment or via "guild council" (group mentoring sessions)

Contact: brpete@sju.edu

Course Overview (The Grand Adventure)

Welcome, explorers! In this course, you are **biologists-in-training**, embarking on a journey through the mysteries of life. Your mission? To uncover the secrets of cells, genetics, evolution, and ecosystems—earning XP, leveling up, and becoming a **Biology Trailblazer** by the end of the semester!

This course uses **gamification** to make learning interactive and rewarding. Instead of grades, you'll earn **Experience Points (XP)** through quests (assignments), boss battles (exams), and side missions (extra credit).



Tools of the Trade

All great biologists need equipment! Here's what you'll use:

- **Textbook:** *Biology: The Science of Life (10th Edition)*
- **Online Tools:** Blackboard (XP tracker), Kahoot (quizzes), and OneDrive (collaborative work)
- **Lab Preparation:** Please wear closed-toe shoes, long pants/skirts, with hair tied back and bring a pencil with you to lab!

XP System & Grading

Instead of traditional grades, you'll level up by earning XP. Each level corresponds to a themed rank:

Rank	Grade	XP Required	Description
Trailblazer	A	11,500+ XP	A legendary explorer, revered for unmatched knowledge and survival skills.
Pathfinder	B	10,000 XP	A skilled adventurer who can navigate any terrain with confidence.
Scout	C	8,500 XP	A resourceful explorer who can handle the challenges of the wild.
Forager	D	7,000 XP	Learning the basics but struggling with survival.
Wanderer	F	Below 7,000 XP	Disoriented in the wilderness—at risk of never making it back.

Course Quests & XP Breakdown

Your XP is earned through completing different quests:

Quest Type	XP Available	Individual/Collaborative	Description
Main Quests (Labs & Homework)	6000 XP	Labs: Collaborative, Homework: Individual	Hands-on lab reports and research activities (one per week)
Boss Battles (Exams)	4500 XP	Individual	Major assessments that test mastery of key concepts
Daily Missions (Classwork & Participation)	1000 XP	Collaborative	Engage in discussions, mini-experiments, and activities
Side Quests (Extra Credit & Challenges)	1000 XP	Individual or Collaborative (varies)	Optional bonus assignments for extra XP

Boss Battles – Face the Challenge!

Boss Battles are major assessments that test your mastery of key concepts. Just like in any great adventure, these high-stakes encounters will challenge you to apply what you've learned and prove your skills as a wilderness explorer.

• Boss Battle Format

Each Boss Battle is designed to assess your knowledge through a mix of question types:

- **Multiple-Choice Questions (40%)** – Test your recall and understanding of fundamental concepts.
- **Short Answer Questions (30%)** – Demonstrate deeper comprehension by explaining key processes.
- **Problem-Solving Scenarios (20%)** – Apply your knowledge to analyze biological situations.
- **Explorer's Challenge (10%)** – A special question requiring critical thinking or data interpretation.

🕒 Time Limit & Structure

Use the syllabus as a place to set the narrative (see Week 2 handout)

Let's Gamify these Key Classroom Elements



Syllabus



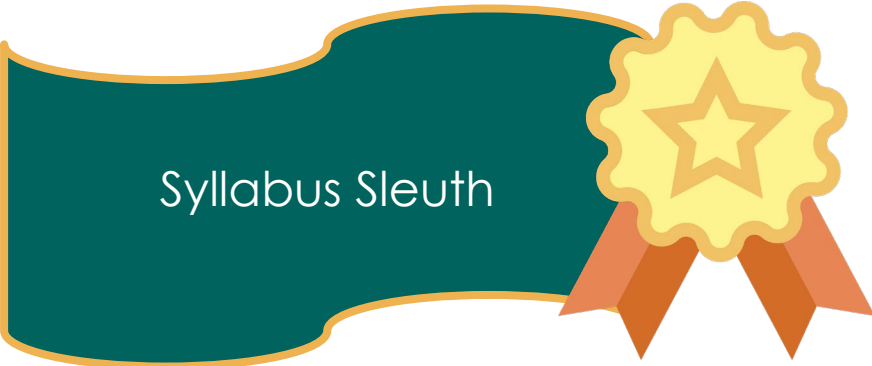
Blackboard



Tests



Attendance



Quiz Tournament



Adaptive Release



Achievements / Badges



Partner Integrations

Cengage, Pearson,
Duolingo, Kahoot



ECP Program



Progress Tracking
Grading Schemas



Create a Tournament using the Quiz Bowl Feature

Question 4

10 points

✓ Saved

[Answer the following statement with a question and use a question mark.]

The conversion of sediment to rock.

What is lithification?

Create a Quiz Bowl question

1. Access a test, survey, or pool. From the *Create Question* menu, select *Quiz Bowl*.
2. Type a statement that students can provide the question for.
3. Select the *Number of Interrogatives* from the menu. You can add up to 103 interrogatives.

2. Interrogatives

Number of
Interrogatives

4

Interrogative 1

Who

Remove

Interrogative 2

What

Remove

Interrogative 3

When

Remove

Interrogative 4

Where

Remove

4. If necessary, type or edit the interrogatives. Select *Remove* to remove interrogatives.
5. Type the answer phrase. Optionally, select the number of answer phrases if more than one is needed. The maximum number of answer phrases is 100.
6. Optionally, type feedback for correct and incorrect answers.
7. Select *Submit*.

Competitive Element:

- **Scoring:** Points could be awarded based on speed and accuracy, potentially with bonus points for correct answers within a certain time frame.
- **Leaderboard:** A leaderboard could be displayed to show students' progress and rankings during or after the quiz.
- **Team-Based:** The quiz could be structured as a team competition, with points awarded to teams based on their members' performance.

The thing is, accessibility is a bit of a moving target. We do. That is because

Let me explain.

At Wichita State, we accessibility work is "populations" (other

Mystery Question #2

Read my mystery

Availability: Item is available
Enabled: Adaptive Release
Accessibility versus Accommodations: It's all about the Who, What, and

- Edit the Test
- Edit the Test Options
- Make Unavailable
- Add Alignments
- Move
- Item Analysis
- Change Due Date
- delete
- Adaptive Release
- Adaptive Release: Adv... Create or edit a
- Set Review Status(Disabled)
- User Progress
- Statistics Tracking (On/Off)
- Metadata

GRADE

This content item is visible to all users until a Grade criterion is created. Points for a Grade Center

Select a Grade Center column

Select Condition

User has at least one attempt for this item
An attempt is recorded in the Grade Center when the user submits a Test

Score Percent

Score Percent Between and

Adaptive Release

- You can completely customize how things are released:
 - Achievement
 - Engagement
 - Date



Exemplary Course Program

Offered by Anthology

COURSE DESIGN

Course Design addresses elements of instructional design. For the purpose of this rubric, course design includes such elements as structure of the course, learning objectives, organization of content, and instructional strategies.

INTERACTION AND COLLABORATION

Interaction and Collaboration can take many forms. The ECP criteria place emphasis on the type and amount of interaction and collaboration within an online environment.

Interaction denotes communication between and among learners and instructors, synchronously or asynchronously. Collaboration is a subset of interaction and refers specifically to those activities in which groups are working interdependently toward a shared result. This differs from group activities that can be completed by learners working independently of one another and then combining the results, much as one would when assembling a jigsaw puzzle with parts of the puzzle completed separately then assembled. A learning community is defined here as the sense of belonging to a group, rather than each learner working independently.

ASSESSMENT

Assessment focuses on instructional activities designed to measure progress toward learning outcomes, provide feedback to learners and instructors, and/or enable grading or evaluation. This section addresses the quality and type of learner assessments within the course.

LEARNER SUPPORT

Learner Support addresses the support resources made available to learners taking the course. Such resources may be accessible within or external to the course environment. Learner support resources address a variety of learner services.

Add progress tracking as a visual cue

Course Management

Control Panel

[Files](#)

[Course Tools](#)

[Evaluation](#)

[Grade Center](#)

[Users and Groups](#)

Customization

[Guest and Observer Access](#)

[Properties](#)

[Quick Setup Guide](#)

[Teaching Style](#)

[Tool Availability](#)

[Packages and Utilities](#)

[Help](#)

Progress Tracking

Course Content



Introduction to Space Exploration

This week, you will learn about the history of space exploration, notable figures in the field of space exploration, and the significance of space exploration in the 21st century.

[Continue](#)

1 of 5 completed



The Solar System

During the second week, you will learn about our solar system and the nature and structure of its celestial objects, including planets, asteroids, and other phenomena.

[Start](#)

Not started

Thinking Creatively About Grade Display

- You can create up to 100 grading schemas in BB!
- You can have course level or individual assignment levels
- Report out both XP (points) and rank within the Gradebook

1. Go to Blackboard Grade Center
 - Navigate to **Full Grade Center** in your course.
2. Create a New Grading Schema
 - Click **Manage** → **Grading Schemas** → **Create Grading Schema**
3. Name the Schema
 - Example: "XP Adventure Ranks"
4. Define XP-to-Grade Mapping
 - Modify the grading scale with the converted XP percentages:

Percentage Range	Letter Grade	Rank
100% and above	A	Trailblazer
87% – 99%	B	Pathfinder
74% – 86%	C	Scout
61% – 73%	D	Forager
0% – 60%	F	Wanderer

5. Save the Schema
 - Click **Submit** to apply the XP-based grading.

- Under **My Grades**, students will see their **current XP total** alongside their **rank title** (Trailblazer, Pathfinder, etc.) instead of traditional letter grades.

Let's Gamify these Key Classroom Elements



Syllabus



Blackboard



Tests



Attendance



Control Panel
Commander

Gamifying Exams

- Keep them on theme
- Give them a fun name (Boss Battles, Firewall Test, Rounds Review, Diagnostic Challenge, Arcane Trials, Hack-a-Thon)
- Present them as an opportunity to level up
- Link content to specific learning objectives (I love how this works in standards-based grading)
- This doesn't affect the content just the context and the language you use!

Step 2A: Using the Microscope

You place the sample under a light microscope. What is the best type of microscopy for viewing **unstained, live bacteria**?

- A. Brightfield microscopy (**Go to Step 3A**)
- B. Phase contrast microscopy (**Go to Step 3B**)

If Incorrect → Challenge Question

What is the main advantage of phase contrast microscopy?

- **Correct Answer:** It enhances contrast in **unstained** samples. (**Go to Step 3B**)
- **Incorrect Answer:** Try again before moving forward!

**Choose your own adventure
exam format**

- Decision Tree
- Answer additional questions if incorrect answers are selected
- Could be routed in Forms, Qualtrics, or Blackboard

Step 3B: Phase Contrast Microscopy

You successfully observe **small, motile bacteria**. What structure allows bacterial motility?

- A. Pili (**Incorrect** → **Challenge Question**)
- B. Flagella (**Go to Step 5B**)

Challenge Question for Incorrect Answer

What is the main function of bacterial pili?

- **Correct Answer: Attachment and DNA transfer (Go to Step 5B)**
- **Incorrect Answer: Try again!**

**Choose your own adventure
exam format**

- Decision Tree
- Answer additional questions if incorrect answers are selected
- Could be routed in Forms, Qualtrics, or Blackboard

Let's Gamify these Key Classroom Elements



Syllabus



Blackboard



Tests



Attendance

Assessment Innovator



Starting off Class

Entry Quests 🏆

- Students complete a **quick challenge** (e.g., a one-question poll, riddle, or discussion prompt) to be marked present.
- Example: "Solve this microbiology riddle: I have no nucleus but can outnumber human cells in your body. What am I?"

Themed Check-Ins 🎭

- Tie attendance to your course theme. For a **pirate-themed course**, students might enter by sharing a "**Captain's Log**" (idea or reflection).

XP for Attendance 🎮

- Track attendance **as experience points (XP)**. Students who reach milestones (e.g., perfect attendance for 3 weeks) earn **small perks**, like extra hints on a quiz.

Mystery Seat or Role 🎩

- Assign a "**secret role**" (e.g., The Scribe, The Spy, or The Captain) to one random attendee who gets a small reward or responsibility for the day.

Team-Based Check-Ins 🍌

- Students **earn points for their team** when they attend, reinforcing group accountability.

In the Middle of Class

Checkpoint Challenges 🚀

- Drop an unannounced **mid-class challenge** that earns participation credit.
- Example: "Everyone who contributes an answer to this discussion gets a +1 to their Attendance XP!"

Roll to Attend (Dice Game) 🎲

- Have students **roll a die** when they answer a question. If they get a certain number, they **unlock a bonus XP** toward attendance milestones.

Surprise Attendance Boss Battle 🏹

- Occasionally, announce a **mini-game** where present students compete in a rapid review challenge. Those who participate get **attendance XP or small rewards**.

At the End of Class

- **Exit Tickets with a Twist** 📄
 - Instead of just checking out, students submit an "**Exit Boss Defeat**", where they answer a final challenge or reflect on a key takeaway.
- **Wheel of Attendance Fortune** 🎡
 - Spin a virtual wheel at the end of class to **reward** one attendee with a perk (e.g., a class privilege or fun title for the next session).
- **Attendance Streak Leaderboard** 🏆
 - Show a **leaderboard of attendance streaks**. Long streaks earn students bonus XP or a special title (e.g., "Microbiology Mastermind").



**Congratulations! You have
completed Level 3: Gamifying
Classroom Components**



Questions? Submit them here!

Join us April 1st at 3:30pm