


Assessing students using CYPHER



The image shows a person from behind, wearing a brown sweater, holding a tablet. The tablet displays a quiz question about titanium alloys. In the bottom left corner, there is a table showing student performance across different competencies.

| Competencies | Code | 1 | 1.1 | 1.2 |
|-------------------|------|-----|-----|------|
| Average | | 88% | 83% | 93% |
| Learner | | 7 | 3 | 2 |
| Duvons, Cary | 74% | 86% | 78% | 91% |
| Eire, Jane | 78% | 97% | 95% | 98% |
| Philips, Jeremy | 78% | 5 | 3 | 1 |
| Willis, John | 71% | 98% | 94% | 100% |
| Woodbridge, KY... | 79% | 7 | 3 | 2 |

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CYPHER helps teachers measure student achievement efficiently by offering a rich set of assessment features, a variety of grading options, and an easy way to keep everything organized in a single location.

Assessing students using CYPHER

Teachers need an easy way to assess what students learn in classes. They have to prepare assignments on a regular basis, grade assignments, and keep track of students' submissions and results, all of which can be time consuming activities. The assessment and grading tools available in CYPHER provide all the functionalities teachers need to easily evaluate student achievement.

Various types of assignments

Choose from 16 types of assessments such as quizzes, essays, debates, team, Dropbox, discussion, and surveys. We also integrate with Turnitin and Unicheck for plagiarism detection.

| Competencies | | Introduction financial... | | | Basic banking concepts | | | Markets and competitors | | |
|-------------------|--|---------------------------|---|-----|------------------------|-----|---|-------------------------|--|--|
| | | Code | | | 1 | | | 1.1 | | |
| Learner | | Average | | | 89% | | | 83% | | |
| Duvons, Cary | | 74% | 7 | 86% | 3 | 78% | 2 | 91% | | |
| Eire, Jane | | 78% | 7 | 97% | 3 | 95% | 2 | 98% | | |
| Phillips, Jeremy | | 78% | 5 | 86% | 3 | 68% | 1 | 95% | | |
| Willis, John | | 71% | 7 | 98% | 3 | 94% | 2 | 100% | | |
| Woodbridge, Ky... | | 79% | 7 | 82% | 3 | 49% | 2 | 98% | | |

Time-saving tools

Our platform helps teachers save time by offering a quick way to create and grade assignments, as well as the ability to save and reuse them.

Powerful gradebook

Grading is simplified using our reliable gradebook. You can see a centralized view of all grades and quickly add results or make changes.



Assessment features overview

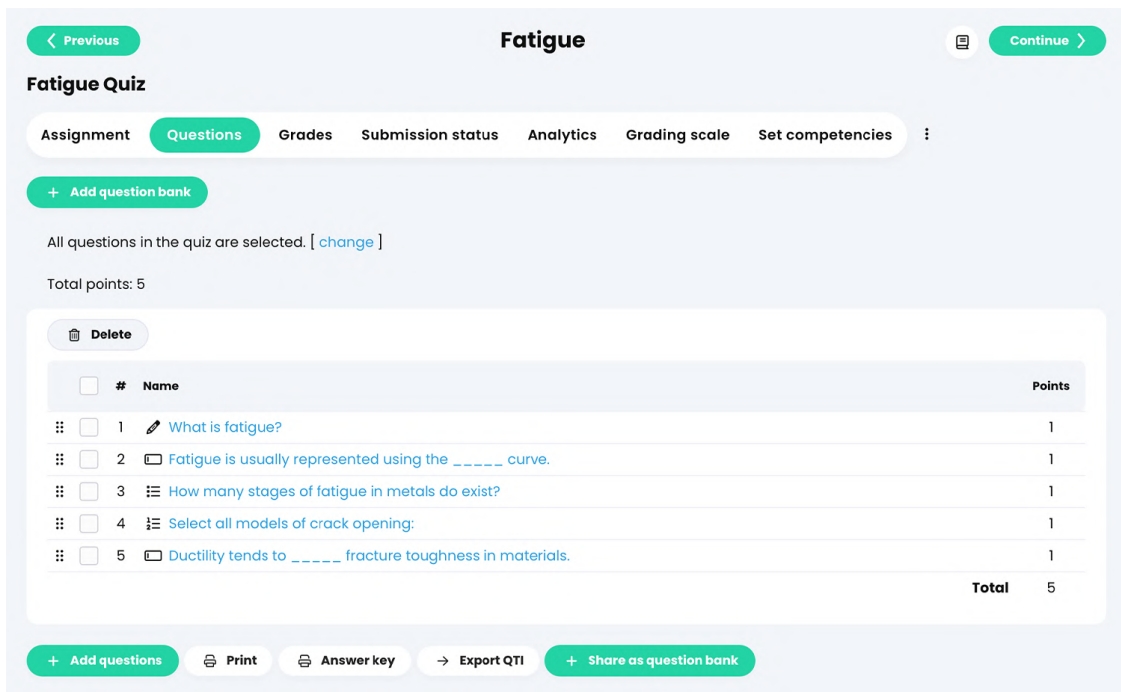
CYPHER helps teachers measure student achievement efficiently by offering a rich set of assessment features, a variety of grading options, and an easy way to keep everything organized in a single location.

Assignment types

Teachers can choose from 16 assessment types, including quizzes, essays, offline, and Dropbox.

Quiz

Quizzes allow teachers to quickly assess a student's understanding of a topic. Quizzes are autograded if they don't include freeform questions. Teachers can create their own questions or import quiz questions from question banks.



Fatigue Quiz

Assignment Questions Grades Submission status Analytics Grading scale Set competencies

+ Add question bank

All questions in the quiz are selected. [[change](#)]

Total points: 5

[Delete](#)


| # | Name | Points |
|--------------|-----------------------------------------------------------|----------|
| 1 | What is fatigue? | 1 |
| 2 | Fatigue is usually represented using the _____ curve. | 1 |
| 3 | How many stages of fatigue in metals do exist? | 1 |
| 4 | Select all models of crack opening: | 1 |
| 5 | Ductility tends to _____ fracture toughness in materials. | 1 |
| Total | | 5 |

+ Add questions [Print](#) [Answer key](#) [Export QTI](#) + Share as question bank


There are seven types of questions available, such as true or false, multiple choice, fill in the blanks, freeform questions, and more.

Add questions ✕


Questions Library Import

**True or false**


The answer to this type of question can only be true or false. A correct answer gets full points, and an incorrect answer...

**Multiple choice (one answer)**


The answer to this type of question is selected from a set of choices. A correct answer gets full points, and an incorrect...

**Multiple choice (many answers)**


The answer to this type of question is selected from a set of choices. Each choice can add or subtract a specified...

**Fill in the blanks**


The answer to this type of question is a set of words, one for each blank in the question. Each blank can have one or...

**Freeform**


The answer to this type of question is text together with some optional attachments. Attachments can be any...

**Matching**

The answer to this type of question is a set of matches between two sets of items. The grade is based on the...

**Hotspot**

The answer to this type of question is one or more selected regions from a picture. The grade is proportional to the number...


**Arithmetic**

The answer to this kind of question is a number. The operators can be addition (+), subtraction (-), multiplication (*)...

True or false

You can create true or false questions, which can have a correct answer, that gets full points, while an incorrect answer gets zero points.

Question 1 of 2 1 Point

 Immersive Reader

There are 8 planets in our solar system.

Select the correct response:

☒ True

☐ False

Continue >

Multiple choice (one answer)

Students select the right answer from a set of choices. A correct answer gets full points, and an incorrect answer gets zero points.

Question 1 of 51 Point

How many stages of fatigue in metals do exist?

Select the correct response:

- ☐ 4
- ☐ 2
- ☐ 5
- ☐ 3

Continue >

Multiple choice (many answers)

Students can select more than one answer from a set of choices. Each choice can add or subtract a specified percentage from the total number of points associated with the question.

Question 1 of 41 Point

When looking at the equilibrium of an aircraft, we need to take into account:

Select the correct response(s):

- ☐ Magnitude of the load
- ☐ Distributed weight
- ☐ Point of application
- ☐ Direction of the load

Continue >

Fill in the blanks

This type of question allows you to create statements with blanks instead of answers. Each blank can have one or more right answers. The score is based on the percentage of blanks that are filled in correctly.

Question 3 of 41 Point

Fill in the blanks:

There are two types of loads: concentrated loads and loads.

[< Previous](#)[Continue >](#)

Freeform

Students are required to leave a text answer and they can add optional attachments. The attachments can be any kind of file, such as a video, a PDF file, or a Word document.

Question 4 of 51 Point

What is fatigue?

Answer with text and/or attachments:

[+ Add attachments](#)

[< Previous](#)[Continue >](#)

Matching

This type of question allows teachers to create a set of matches between two sets of items. The score is based on the percentage of matches that are correct.

Question 4 of 41 Point

Please match the following forces considering a detailed model of aircraft loads:

Match each item to a choice:

| | |
|--------|--|
| Thrust | |
| Drag | |
| Lift | |
| Weight | |

Choices:

Fuselage

Wings

Aircraft

Engine

< Previous

Continue >

Arithmetic

Teachers can also add arithmetic questions that are mathematical operations. The operators can be addition, subtraction, multiplication and/or division. The number and range of operands can be specified.

Question 3 of 31 Point

$4 + 3$

Enter the result:

< Previous

Continue >

Essay

An essay is a freeform assignment where students can submit their response directly using the HTML editor. They can include an unlimited number of attachments such as PowerPoint presentations and Word documents.

Prepare freeform answer for Aircraft model – Concept
✕ Cancel

For the final project, you will need to design and present your very first aircraft model.

Your answer

Enter your freeform answer and then press one of the Save options.
You can add attachments such as Word documents, PDFs and pictures.
The maximum size of the answer plus attachments is 200 MB.

Answer

File Edit View Insert Format Tools Table

↶ ↷ Paragraph Poppins 12pt

B I U A

☰ ☰ ☰ ☰ ☰ ☰ ☰ ☰ ☰ ☰

For my aircraft model, I selected a combination of balsa wood and foam board as the primary materials. Balsa wood was chosen for the main structural components like the fuselage and wing spars because of its excellent strength-to-weight ratio. It's lightweight enough to keep the model efficient in flight, but also strong enough to handle minor impacts and resist bending. I used foam board for the wings and tail surfaces because it's easy to cut, shape, and attach, which allowed for more precise control over the aerodynamic profile of the aircraft.

To add strength to high-stress areas—such as where the wings connect to the fuselage—I reinforced those sections with small strips of carbon fiber rods. These rods are lightweight but incredibly strong, which helps prevent wing flexing during takeoff and flight. I also used thin plastic sheeting in the landing gear area to protect against wear and ground impact. The combination of these materials allowed me to balance durability with overall weight efficiency.

I made sure to test how each material bonded with adhesives, since strong joints were critical for the model's stability. I used a foam-safe CA glue for the foam board and wood glue for the balsa joints. In areas where different materials met, I used epoxy for a more secure bond. Overall, my material choices were guided by the need for lightness, strength, ease of assembly, and the ability to handle flight

P 240 WORDS

+ Add attachments
+ Save and submit for grading
+ Save but don't submit yet

Offline assignment

Teachers can also evaluate students in a more traditional way, by assigning an offline task such as reading a book or taking a paper-based test. You can enter the grades based on the results of the offline work.

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Design & Certification
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Individual project assignment

Instructions

Instructions

Designing and Marketing a Revolutionary Product

Step 1: Market Research

Embark on a comprehensive exploration of the market landscape for your chosen product. Delve into consumer preferences, industry trends, and competitor analysis. Identify key insights regarding customer

Assignment

Type: Offline assignment

Max grade: 100

Category: Homework

Survey

A survey assignment is a great way to get feedback from your students. Surveys can have multiple choice and freeform questions.

Question 1 of 1

What is the primary purpose of the fuselage in an aircraft?

Select one:

☐ To provide lift during flight

☐ To house the aircraft's engines

☐ To provide structural support and house the crew, passengers, and cargo

☐ To control the direction of the aircraft's flight

Continue >


Discussion

Students can earn points by participating in a single thread of discussion that is started by the teacher, who will grade according to their answers.

Discussion

[+ Post](#) [Subscribe](#) [Enable RSS feed](#)


Postings



From [Eva Garcia](#) @ May 15, 3:08 am (3 minutes ago)

List manufacturing defects that have been the cause of regulatory law changes.


[+ Reply](#) [Edit](#) [Delete](#)



From [Jordan Chen](#) @ May 15, 3:11 am (1 minute ago)

Composite Material Disbonds – Airbus A310 Rudder Loss (2005)

[+ Reply](#) [Edit](#) [Delete](#)



From [Billy Aaron](#) @ May 15, 3:11 am (less than 10 seconds ago)

Nose Gear Assembly Failures – Airbus A320 (2005)

[+ Reply](#) [Edit](#) [Delete](#)


Debate

Engage students and promote critical thinking through debates. This assignment enables students to formulate arguments for or against a proposition that is supplied by the teacher.

Proposition

Do you think regulatory laws are sufficient?

Against




Supported by [Billy Aaron](#) 4 minutes ago 🗑️

No, because accidents still occur due to overlooked manufacturing defects, showing gaps in enforcement or inspection.

+ Challenge this reason

For




Supported by [Jordan Chen](#) 4 minutes ago 🗑️

Yes, but only when consistently updated to reflect new materials, technologies, and lessons learned from incidents.

+ Challenge this reason

Against



Supported by [Taylor Garcia](#) less than 5 seconds ago 🗑️

No, because many regulations are reactive, only changing after an accident has already happened.

+ Challenge this reason

Team

Encourage students to work together to accomplish tasks. The teachers can organize students into teams and each team gets their own private group for collaborating and creating their submissions.

Teams

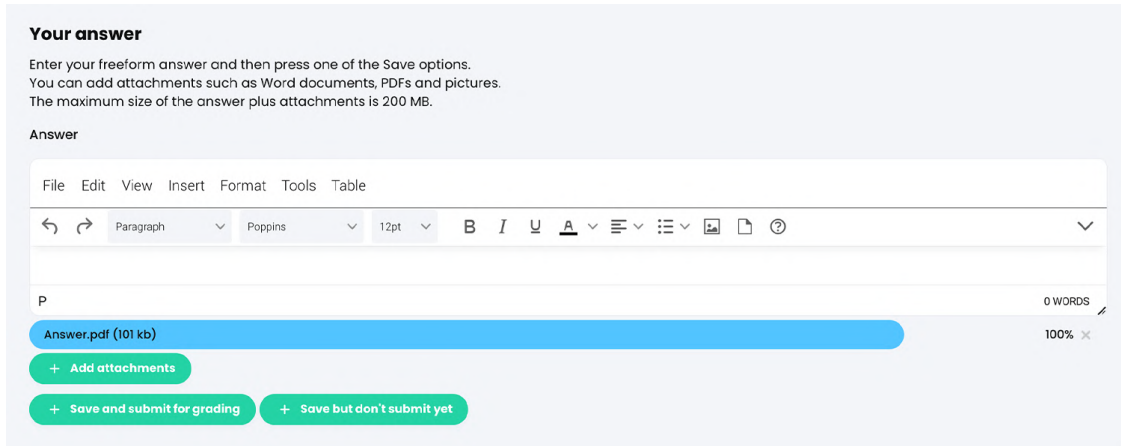
— Remove

| Team | Select members | Members |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|
| <input type="checkbox"/>  Team A |  | 3 |
| <input type="checkbox"/>  Team B |  | 3 |

+ Add team

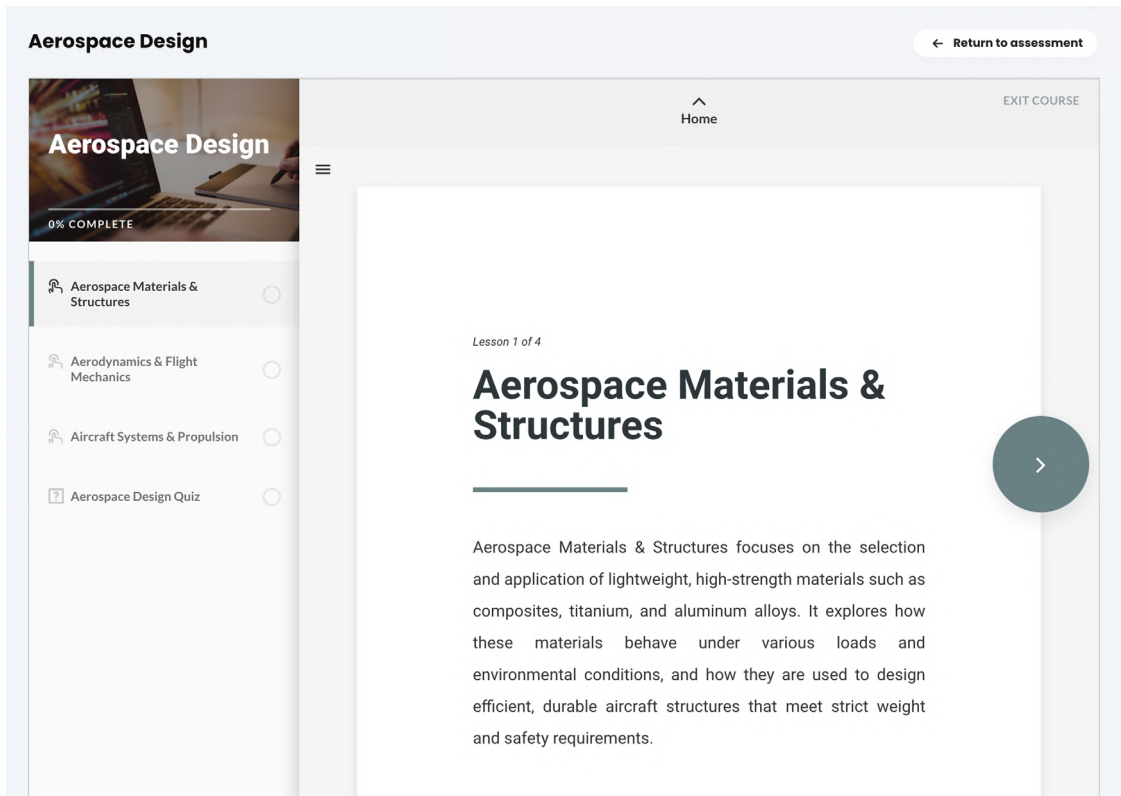
Dropbox

Students can upload one or more files as their assignment submission. They can use any type of file, including documents, PDF files, videos, images, and more.



SCORM

A SCORM assignment captures the results of a SCORM item, which can be any type of assignment, such as a quiz.



Attendance

Award points for class participation by adding one or more attendance assignments. Teachers can track student attendance for a class session and take note when a student arrives on time, arrives late, leaves early, or is absent.

Standalone assignment

Attendance

Assignment
Grades
Analytics
Grading scale
Visibility
Tags

+ Add
Delete

Instructions

Students earn points for class attendance as follows:

| On time | Arrived late / Left early | | Absent | |
|---------|---------------------------|-------------|---------|-------------|
| | Excused | Not excused | Excused | Not excused |
| 10 | 1 | 2 | 0 | 1 |

Assignment

Type: Attendance

Max grade: 0

Grading: Normal

Category: None

Schedule

Start: Jul 16

Turnitin

The Turnitin integration allows teachers to check students' work for improper citation or potential plagiarism.

Final Exam

Climate essay
Assignment
Grades

Student
Garcia, Taylor

Turnitin Document Viewer

Secure | https://sandbox.turnitin.com/dv?s=3&o=200687922&u=28636257&lang=en_us

New Turnitin | Climates Essay - DUE 31-Mar-2019

Originality | GradeMark | PeerMark

Climates essay

turnitin 92% OUT OF 100

Search QuickMark templates

Composition

Comment

Select text and click the Comment button to highlight text associated with a comment.

Awk. CutQ Float Frag.

Insert: Needs topic

P/A Agreement P/V Pos.

S/V Agreement Simp. Support

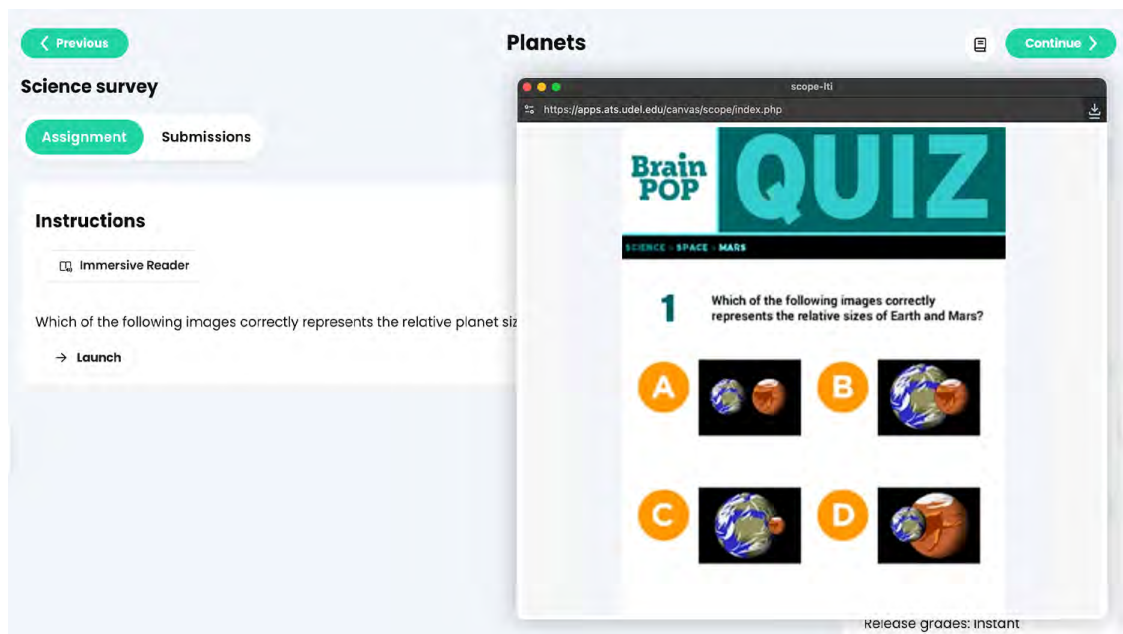
Tense Shift Thesis Tone

Transpose Vague Var.

Weak Transition Wordy

LTI

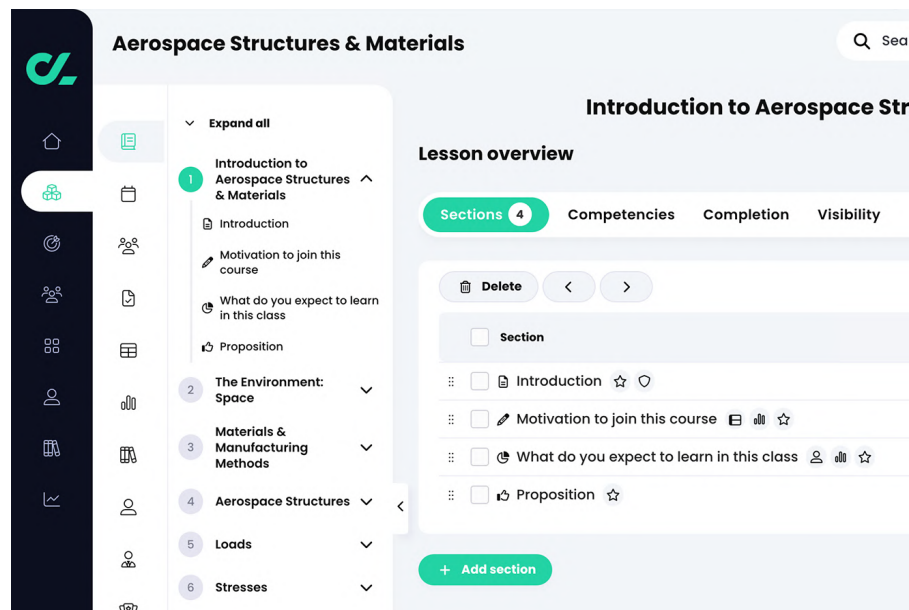
LTI (Learning Tool Interoperability) allows teachers to seamlessly integrate learning applications into their classes. You can add a tool provider and configure your custom LTI assignments.



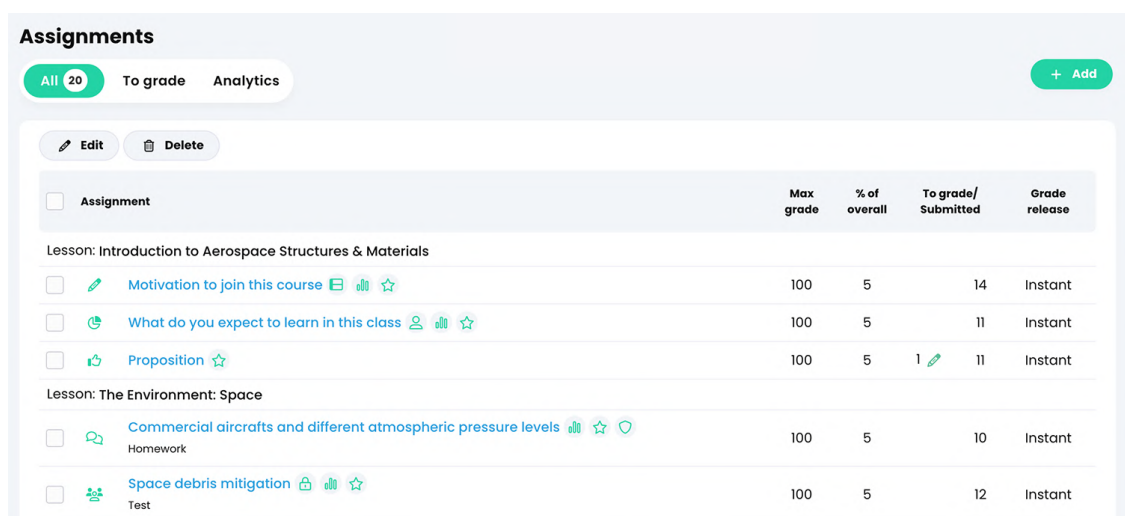
The assessment and grading tools available in CYPHER provide all the functionalities teachers need to easily evaluate student achievement.

Assignment features

Classes in CYPHER are usually comprised of content sections and assignments. Content sections represent the material that is being taught in class. Assignments represent the tools used to assess what students learned in class.



Teachers can see a centralized view of all assignments in a class in the Assignments overview area.



Each assignment has its own overview page that displays details about the assignment such as instructions, grading options, settings, and more. Certain tabs are enabled or disabled depending on the type of assignment. For example, auto-graded quizzes cannot have a Rubric tab since they are graded automatically.

Materials & Manufacturing Methods

Largest space materials database

Instructions

Immersive Reader

Look at Adhesive Coatings under the following material database and identify all coatings that score a **good** lot of reproducibility.

[Space Materials Database](#)

Select one that you like and submit a 200 words essay about its properties online.

Assignment

- Type: Discussion
- Max grade: 100
- Grading: Normal
- Category: Participation

Grading

- Due: 8, Submitted: 11
- Graded: 11

Options

- Library: Personal
- Release grades: Instant
- Require students to post before seeing discussion: X
- List most recent posts first: X

Questions

The Questions tab displays the questions of a quiz or survey assignment.

Quiz: Additive Manufacturing

Assignment Questions Grades Submission status Analytics Grading scale Competencies Completion Grade rules

+ Add question bank

All questions in the quiz are selected. [[change](#)]

Total points: 5

| # | Name | Points |
|--------------|-------------------------------------------------------------------------------------------|----------|
| 1 | Additive manufacturing components can be used in passenger aircraft for more than | 1 |
| 2 | Metal additive manufacturing components can be combined with | 1 |
| 3 | Satellite systems are designed to operate for up to | 1 |
| 4 | In 2009, how much did the aerospace industry account from the AM industry - revenue-wise? | 1 |
| 5 | and are two of the special features of the requirements profiles for most AM components. | 1 |
| Total | | 5 |

+ Add questions Print Answer key Export QTI Share as question bank

Grades

Here you can see the grades for the assignment, the submissions for each student, the grades, and teacher comments.

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Materials & Manufacturing Methods

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Quiz: Additive Manufacturing

Assignment Questions **Grades** Submission status Analytics Grading scale Competencies Completion Grade rules

Gradebook

← Import

| Student | Show/Grade | Submitted | Grade | Grade | Grader | Teacher comment |
|------------------|------------|-------------------|-------|------------|---------------------------------------------|-----------------|
| Aaron, Billy | | Sep 27 6:09 am | 5 | A+ 100% | Mike Posner Sep 27, 2021 | |
| Anderson, Louie | | Sep 27 6:49 am | 4 | B+ 80% | Mike Posner Sep 27, 2021 | |
| Chen, Jordan | | Sep 27 7:30 am | 5 | A+ 100% | Mike Posner Sep 27, 2021 | |
| Foster, Andrew | | Sep 27 7:30 am | 4 | B+ 80% | Mike Posner Sep 27, 2021 | |
| Foster, George | | Sep 27 7:30 am | 3 | C 60% | Mike Posner Sep 27, 2021 | |
| Garcia, Taylor | | Sep 27 7:30 am | 3 | C 60% | Mike Posner Sep 27, 2021 | |
| Jabs, Dillon | | Sep 27 6:50 am | 5 | A+ 100% | Mike Posner Sep 27, 2021 | |
| Johnson, Aaliyah | | Sep 27 7:30 am | 3 | C 60% | Mike Posner Sep 27, 2021 | |
| Kim, Ji-hoon | | Sep 27 6:50 am | 5 | A+ 100% | Mike Posner Sep 27, 2021 | |

To grade

This section lists all the assignments that need to be graded.

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Final Exam

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Aircraft model - Concept

Assignment Grades **To grade 1** Submission status Analytics Grading scale Use rubric Competencies Completion

| Student | Show/Grade | Submitted | Grade | Grade | Grader | Teacher comment |
|-----------------|------------|-------------------|-------|-------|--------|-----------------|
| Garcia, Taylor | | May 15 6:11 am | ? | ? | - | |
| Anderson, Louie | | May 15 6:11 am | ? | ? | - | |
| Chen, Jordan | | May 15 6:11 am | ? | ? | - | |

Submission status

This section lists all the students and whether their assignment status is Not started, Submitted, or Graded.

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Final Exam

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Aircraft model - Concept

Assignment
Grades
To grade
Submission status
Analytics
Grading scale
Use rubric
Competencies
Completion

Message

| Student | Status |
|------------------------------------------|-------------|
| <input type="checkbox"/> Aaron, Billy | Not started |
| <input type="checkbox"/> Anderson, Louie | Submitted |
| <input type="checkbox"/> Chen, Jordan | Graded |
| <input type="checkbox"/> Foster, Andrew | Graded |
| <input type="checkbox"/> Foster, George | Graded |
| <input type="checkbox"/> Garcia, Taylor | Submitted |
| <input type="checkbox"/> Jobs, Dillon | Not started |

Analytics

In the Analytics tab, you can see the grade distribution among students and a breakdown of results.

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Aerospace Structures

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Aircraft structure knowledge

Assignment
Questions
Grades
Submission status
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Grade distribution

Graded: 13, Min: 60%, Max: 100%, Average: 78%

| Percent% | Students |
|----------|----------|
| 60-70 | 4 |
| 70-80 | 4 |
| 80-90 | 6 |
| 90-100 | 3 |

Breakdown of results

Number of times taken: 1

Here is a summary of the answers to the quiz questions:

Question 1: The fuselage is the frontal body of an airplane.

Grading scale

In this section you can see the current grading scale for an assignment and change it to a different one if desired.

Aircraft structure knowledge

Assignment Questions Grades Submission status Analytics **Grading scale**

This assignment is using the default class grading scale: Standard regular grading scale.

| Grade | Minimum% | Letter% |
|-------|----------|---------|
| A+ | 95 | 97.5 |
| A | 90 | 92.5 |
| A- | 85 | 87.5 |
| B+ | 80 | 82.5 |
| B | 75 | 77.5 |
| B- | 70 | 72.5 |
| C+ | 65 | 67.5 |
| C | 60 | 62.5 |
| C- | 55 | 57.5 |
| D+ | 50 | 52.5 |
| D | 45 | 47.5 |
| D- | 40 | 42.5 |
| F | 0 | 20 |

Competencies

If the class is using competencies, you can tag assignments with the competencies that you want it to assess.

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Aircraft structure knowledge

Assignment Questions Analytics Grading scale **Competencies** Completion Grade rules Visibility :

Aerospace Structure & Materials

5. Advanced composition

- 5.1. Aerospace structures
- 5.2. How to dimension an aircraft

Aerospace Engineer

2. Essential Knowledge

- AEROER-EK 2.4. Quality standards
- AEROER-EK 2.6. Aircraft mechanics
- AEROER-EK 2.8. Manufacturing processes
- AEROER-EK 2.9. Engineering processes

[Edit](#) [Clear](#)

Rubric

Some assignments such as essays have a Rubric tab. Rubrics can be used to grade assignments based on criteria.

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Introduction to Aerospace Structures & Materials

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Motivation to join this course

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[Submission status](#)
[Analytics](#)
[Grading scale](#)
[Rubric](#)
[Competencies](#)
[Completion](#)
[Grade rules](#)

Motivation to join this course rubric
[Edit](#)
[Don't use rubric](#)
[Copy to library](#)

| Criteria | Pts | Grading scale | | | |
|-------------------|-----|-----------------------------------------------|-----------------------------------------------|----------------------------------------------|------------------------------------------|
| Used the rules | 60 | 15 Poor Very poor use of rules | 30 Fair Used some of the rules | 45 Good Used most of the rules | 60 Excellent Used all of the rules |
| Completed on time | 40 | 10 Poor Completed 3 days after deadline | 20 Fair Completed 2 days after deadline | 30 Good Completed 1 day after deadline | 40 Excellent Completed on time |

Completion

Define rules that should be performed upon completion of the assignment. For example, when students complete an assignment you can send them a custom message, award them a badge, and more.

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Introduction to Aerospace Structures & Materials

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[Competencies](#)
[Completion 1](#)

Lesson completion

☒ Require this section to be completed for lesson completion.

Completion requirements

The assignment is considered completed when it is submitted.
 [+ Add minimum grade requirement](#)

Completion time estimate

No time estimate has been specified.
 [+ Add](#)

Completion actions

Add actions here that should be performed when the assignment is completed.

| Action | Added | Edit | Remove |
|-----------------------------------------------|--------------|----------------------|------------------------|
| ★ Award 25 points for game Class game (Popup) | Sep 29, 2021 | Edit | Remove |

[+ Add](#)

Grade rules

Teachers can define actions that are triggered when a student obtains a predefined grade for an assignment. For example, teachers receive a notification if the student gets a grade higher than 50%.

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Introduction to Aerospace Structures & Materials

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[Grade rules](#)

This is the area where you can add rules and actions for when students achieve a specified grade.

[+ Add rule](#)

Score < 50%

The following actions are performed if the score < 50%:

| Action | Added | Edit | Remove |
|-------------------------------------------------|--------------|-------------------|-------------------|
| 🔔 Send custom notification to user | Mar 13, 2025 | ✎ | ✖ |
| 🔒 Lock lesson Materials & Manufacturing Methods | Mar 13, 2025 | ✎ | ✖ |

[+ Add action](#)
[✎ Edit](#)
[✖ Delete](#)

Visibility

Teachers can use the adaptive learning feature to automatically hide or show assignments based on student progress. They can also personalize assignments manually. After enabling this option, by default the assignment will be hidden from all students and you can choose which students can see it.

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Aerospace Structures

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Commercial aircraft structure

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[Visibility](#)

Visibility

By default, this item is: ☐ Shown ☒ Hidden

Shown

This item is shown to the following users:

[- Remove](#)

| <input type="checkbox"/> Name | Added | When |
|-------------------------------------------|------------|----------------------------|
| <input type="checkbox"/> Billy Aaron | Manually | Sun May 18, 2025, 11:06 pm |
| <input type="checkbox"/> Taylor Garcia | Manually | Sun May 18, 2025, 11:06 pm |
| <input type="checkbox"/> Jonathan Seimour | Automation | Wed Mar 29, 2023, 4:50 am |
| <input type="checkbox"/> Jordan Chen | Manually | Sun May 18, 2025, 11:06 pm |
| <input type="checkbox"/> Ji-hoon Kim | Manually | Sun May 18, 2025, 11:06 pm |


[+ Add](#)

Samples


Provide an optional sample answer for students to help them complete the assignments.

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Aerospace Structures

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Commercial aircraft structure

[Assignment](#) [Grades](#) [Submission status](#) [Analytics](#) [Grading scale](#) [Use rubric](#) [Competencies](#) [Completion](#) [Samples](#) 

Sample answer


The Airbus A350 and Boeing 787 represent the latest generation of commercial aircraft with advanced composite structures, while the Boeing 737 NG/MAX, 747-8, and 767-300F rely more heavily on traditional aluminum alloys. The A350 stands out with its extensive use of carbon-fiber reinforced polymer (CFRP), which makes up over 50% of its structure, including the fuselage and wings. This allows for reduced weight, improved fuel efficiency, and greater resistance to fatigue and corrosion. In contrast, the Boeing 737 NG and MAX, which are narrow-body aircraft designed for short to medium-haul routes, are built primarily from aluminum alloys. While the MAX does incorporate some composite materials in control surfaces and fairings, the overall design remains based on earlier aluminum-intensive structures to preserve continuity and certification ease.

The Boeing 747-8 and 767-300F, both wide-body aircraft, use a blend of aluminum alloys and selective composites. The 747-8, an updated version of the iconic jumbo jet, features advanced aluminum alloys and incorporates composites in secondary structures like fairings and nacelles, but maintains a largely metal fuselage and wing box. Similarly, the 767-300F freighter model uses mostly aluminum construction, suitable for cargo operations due to its robust and easily maintainable frame. Despite structural differences, all aircraft share common design principles, including stress distribution, load-bearing frames, and modular sections. The main distinction lies in how material advancements are applied to achieve performance goals. The A350 is a clear leap forward in composite integration, while the 737, 747, and 767 reflect evolutionary changes that balance new technology with existing frameworks. This highlights how structural choices are influenced by aircraft role, era, and intended operational efficiency.

 [Edit](#)  [Clear](#)

Correct answer

This is hidden from students and shown to teachers during grading.

 [Add](#)



Our platform helps teachers save time by offering a quick way to create and grade assignments, as well as the ability to save and reuse them.

Grading assignments

Grading is made easier using our tools. Teachers can use various grading options, rubrics, grading scales and a powerful gradebook.

Grading scales

Grading scales are a great way to make sure that assignments are graded consistently for each class. When you create a grading scale, you can choose between a percentages grading scale and a points grading scale.

The percentage grading scale indicates the minimum percentage required to earn a grade, whereas the points based grading scale shows the number of points needed to obtain a grade.

Standard regular grading scale (Default)

Number of courses, class templates, and assessments using this letters grading scale:







| Score | Minimum% | Letter% |
|-------|----------|---------|
| A+ | 95 | 97.5 |
| A | 90 | 92.5 |
| A- | 85 | 87.5 |
| B+ | 80 | 82.5 |
| B | 75 | 77.5 |
| B- | 70 | 72.5 |
| C+ | 65 | 67.5 |
| C | 60 | 62.5 |
| C- | 55 | 57.5 |
| D+ | 50 | 52.5 |
| D | 45 | 47.5 |
| D- | 40 | 42.5 |
| F | 0 | 20 |

| Special remark | % |
|----------------|---|
| Missing | 0 |
| Incomplete | 0 |
| Absent | 0 |

Points grading scale

Edit score map

Edit the grade map and press the Save button.
You don't have to enter the scores in order; they are automatically sorted when you save them.

| Value | Description | |
|-------|-------------|---------------------------------------------------------------------------------------|
| 100 | Excellent |  |
| 80 | Very good |  |
| 60 | Good |  |
| 40 | Acceptable |  |
| 20 | Pass |  |
| 0 | Fail |  |
| | | |

| Value | Special remark |
|-------|----------------|
| 0 | Missing |
| 0 | Absent |
| 0 | Incomplete |

Schools can choose between a regular or a pass/fail grading scale. Schools can set a grading scale per school, per class and per assignment.

| Standard pass/fail grading scale | | |
|---------------------------------------------------------------------------------------|----------|---------|
| Number of courses, class templates, and assessments using this letters grading scale: | | |
| Score | Minimum% | Letter% |
| P | 70 | 85 |
| F | 0 | 35 |

Grading types

Teachers can configure a variety of options when creating assignments, such as setting a number of maximum attempts, providing instant feedback, setting a start and end date, and more.

Add Quiz assignment

OverviewOptions

Release gradesInstantManual

Timed:

Instant feedback:

Grading:Use latest gradeUse best grade

Show in student results:

QuestionResponse

Correct answerGradeFeedback

Library:PersonalSchool

Randomize order:

Allow review:

Allow users to jump between questions:

Autocomplete on retake:

Get assistance from CYPHER Agent

Save

They can also choose from the following grading options:

- **Normal** - the assignment grade will count towards the final grade
- **Extra credit** - the grade will be a bonus and contributes the final grade
- **Ignore** - the grade will not contribute towards the final grade
- **Not graded** - the assignment is not graded and does not contribute to the final grade

Add Quiz assignment

Overview Options

Title

Max grade: - Category: None Lesson: None

Max attempts: 1 Grading: Normal Grading scale: Default

Instructions: *

File Edit View Insert Format Tools Table

Paragraph Poppins 12pt B I U

0 WORDS

Get assistance from CYPHER Agent Save

Rubrics

Grade assignments fast and consistently using rubrics. Teachers can build rubrics with custom criteria and ratings, tag criteria with competencies, and adjust rubrics criteria using the class grading scale.

Introduction to Aerospace Structures & Materials

Motivation to join this course

Assignment Grades Submission status Analytics Grading scale **Rubric** Competencies Completion Grade rules

Motivation to join this course rubric Edit Don't use rubric Copy to library

| Criteria | Pts | Grading scale | | | |
|-------------------|-----|---------------------------------|---------------------------------|--------------------------------|-----------------------|
| Used the rules | 60 | 15 Poor | 30 Fair | 45 Good | 60 Excellent |
| | | Very poor use of rules | Used some of the rules | Used most of the rules | Used all of the rules |
| | | | | | |
| Completed on time | 40 | 10 Poor | 20 Fair | 30 Good | 40 Excellent |
| | | Completed 3 days after deadline | Completed 2 days after deadline | Completed 1 day after deadline | Completed on time |
| | | | | | |

Rubrics are easy to edit and have a drag and drop design. For example, you can edit or delete the number of points for each rating and rearrange columns and rows. Rubrics can be stored in the resources library and reused for other classes.

Introduction to Aerospace Structures & Materials

Motivation to join this course

Assignment Grades Submission status Analytics **Rubric** Grading scale Competencies Completion

Motivation to join this course rubric Cancel Grading scale + Add criterion + Add competencies

| Criteria | Pts | Grading scale | | | |
|-------------------|-----|-----------------------------------------|-----------------------------------------|----------------------------------------|------------------------------------|
| Used the rules | 15 | 30 | 45 | 60 | |
| Add description | 60 | Poor Very poor use of rules | Fair Used some of the rules | Good Used most of the rules | Excellent Used all of the rules |
| Completed on time | 10 | 20 | 30 | 40 | |
| Add description | 40 | Poor Completed 3 days after deadline | Fair Completed 2 days after deadline | Good Completed 1 day after deadline | Excellent Completed on time |

Save

You can also add competencies as rubric criteria or you can associate an existing criteria with a competency.

Aerospace Structures & Materials

Search

Eva Garcia

Competencies

Aerospace Structure & Materials

1. Introduction to Aerospace Structures & Materials

☐ 1.1. Understanding the difference between aircrafts vs spacecrafts

2. Material properties

☒ 2.1. Understanding high strength

☒ 2.2. Understanding stiffness

☐ 2.3. Understanding fatigue durability

☐ 2.4. Understanding damage tolerance

3. Space - The Environment

☐ 3.1. Understanding atmospheric pressure

☐ 3.2. Understanding space debris

4. Materials & Manufacturing Methods

☐ 4.1. Understanding the basic material properties and their usage

☐ 4.2. Adaptive manufacturing as the future of manufacturing

5. Advanced composition

☐ 5.1. Aerospace structures

☐ 5.2. How to dimension an aircraft

☐ 5.3. How to dimension a spacecraft

6. Design & Certification

Submit

How teachers grade assignments

Teachers can easily see all the submissions that they need to grade in the To grade section of an assignment.

Previous

Final Exam

Continue

Aircraft model - Concept

Assignment

Grades

To grade 3

Submission status

Analytics

Grading scale

Use rubric

Competencies

Completion

| Student | Show/Grade | Submitted | Grade | Grade | Grader | Teacher comment |
|----------------|------------|--------------------|-------|-------|--------|-----------------|
| Aaron, Billy | | May 18 11:49 pm | ? | ? | - | |
| Chen, Jordan | | May 19 11:50 pm | ? | ? | - | |
| Garcia, Taylor | | May 15 8:11 am | ? | ? | - | |

Grading is done fast using a single centralized page for each submission, where teachers can see the students answer, history of submissions, and more. Teachers can adjust the grade, the number of attempts, and add feedback through the comments section.

Aircraft model - Concept

Submission

History

Submission

For my aircraft model, I selected a combination of balsa wood and foam board as the primary materials. Balsa wood was chosen for the main structural components like the fuselage and wing spars because of its excellent strength-to-weight ratio. It's lightweight enough to keep the model efficient in flight, but also strong enough to handle minor impacts and resist bending. I used foam board for the wings and tail surfaces because it's easy to cut, shape, and attach, which allowed for more precise control over the aerodynamic profile of the aircraft.

To add strength to high-stress areas—such as where the wings connect to the fuselage—I reinforced those sections with small strips of carbon fiber rods. These rods are lightweight but incredibly strong, which helps prevent wing flexing during takeoff and flight. I also used thin plastic sheeting in the landing gear area to protect against wear and ground impact. The combination of these materials allowed me to balance durability with overall weight efficiency.

I made sure to test how each material bonded with adhesives, since strong joints were critical for the model's stability. I used a foam-safe CA glue for the foam board and wood glue for the balsa joints. In areas where different materials met, I used epoxy for a more secure bond. Overall, my material choices were guided by the need for lightness, strength, ease of assembly, and the ability to handle flight stresses without failure.

Edit

Aaron, Billy

72 / 100 (B-)

Submitted: May 18, 11:49 pm

Attempts: 2 [history] Max. attempts: 2

edit

Comments

Submission 1 @ 2:54 pm Apr 26, 2023

Submission 2 @ 11:49 pm May 18, 2025

B I U T Link Image Video Embed

Post

Teachers can also use rubrics to grade assignments such as essays, by selecting the criteria from the rubric that corresponds with the student's submission.

Motivation to join this course

Submission

History

Submission

I am deeply fascinated by how science, engineering, and innovation come together to make flight possible. Joining this aerospace design course offers me the opportunity to explore the structural and material complexities behind modern aircraft and understand how theory translates into real-world applications. I am eager to build a strong foundation in aerodynamics, materials, and systems design so I can contribute to the future of safer, more efficient, and sustainable aviation technologies.

Edit

Aaron, Billy

E 83 / 100 (B+)

Submitted: Sep 27, 6:08 am

Attempts: 1 [\[history\]](#)

Max. attempts: Unlimited

edit

| Criteria | Grading scale | | |
|-------------------|---------------|------------|------------|
| Used the rules | 15 Poor | 30 Fair | 45 Good |
| Completed on time | 10 Poor | 20 Fair | 30 Good |

Save

Gradebook

The gradebook provides a convenient way to see the results for all students in a class and you can also grade assignments directly from the gradebook.

Aerospace Structures & Materials

Search

Eva Garcia

Dashboard

Lessons

Groups

Assignments

Gradebook

Mastery

Resources

Students

Teachers

Games

Forums

Syllabus

Automation

Admin

Gradebook

Assignments by name

Students by last name

All categories

All lessons

Missing

Incomplete

Absent

Excused

Jump to...

+

| Assignments | | Motivation to | What do you | Proposition | Commercial | Space debris | Largest space | Quiz: Materials |
|-------------------|---------------|---------------|-------------|-------------|------------|--------------|---------------|-----------------|
| Category | Grade release | Instant | Instant | Instant | Instant | Instant | Instant | Instant |
| Students | Overall | 100 | 100/p | 100 | 100 | 100 | 100 | 15 |
| Aaron, Billy | 81% B+ | 83 | 80 | 87 | 78 | 100 | 70 | 5 |
| Anderson, Louie | 74% B- | 59 | 60 | 89 | 62 | 90 | 80 | 4 |
| Chen, Jordan | 79% B | 84 | | 75 | 0 | 100 | 73 | 3 |
| Foster, Andrew | 73% B- | 85 | | 89 | 90 | | | 3 |
| Foster, George | 76% B | 90 | 100 | 90 | 0 | 100 | 87 | 4 |
| Garcia, Taylor | 20% F | 60 | 0 | 0 | | | | |
| Jobs, Dillon | 50% D+ | 100 | 0 | 0 | | | | |
| Johnson, Aaliyah | 86% A- | 100 | 99 | 68 | 99 | 100 | 91 | 5 |
| Kim, Ji-hoon | 93% A | 90 | 96 | 46 | 100 | 95 | 98 | 4 |
| Maestro, Giovanni | 80% B+ | 82 | 88 | 25 | | 100 | 72 | 3 |
| Patel, Arjun | 88% A- | 73 | 69 | 90 | 95 | 100 | 100 | 5 |
| Robinson, Jack | 84% B+ | 87 | 70 | 90 | 70 | 100 | 69 | 5 |
| Santos, Casey | 81% B+ | 92 | 74 | 68 | 92 | 100 | 88 | 5 |
| Seimour, Jonathan | 80% B+ | | | | | | | |
| Smith, Emma | 91% A | 100 | 100 | | 100 | 100 | 100 | 5 |



Assignments and results can be sorted by assignment name, ascending or descending, due date or category.

Gradebook

Jump to...

+

Assignments by name

Students by last name

All categories

All lessons

Missing

Incomplete

Assignments by name

Assignments by category

Assignments

Motivation to

What do you

Proposition

Commercial

Space debris

Category

Grade release

Instant

Instant

Instant

Instant

Instant

Students

Overall

Aaron, Billy

81%

B+

83

80

87

78

100

Anderson, Louie

74%

B-

59

60

89

62

90

Chen, Jordan

1

79%

B

84

75

0

100

Foster, Andrew

1

73%

B-

85

89

90

Foster, George

1

76%

B

90

100

90

0

100

You can mark assignments with exceptions to keep track of students' submissions. The exceptions available are missing, incomplete, absent, and excused.

Gradebook

Jump to...

+

Assignments by name

Students by last name

All categories

All lessons

Missing

Incomplete

Absent

Excused

Assignments

Motivation to

What do you

Proposition

Commercial

Space debris

Largest space

Quiz: Materials

Category

-

-

-

Homework

Test

Participation

Quiz

Grade release

Instant

Instant

Instant

Instant

Instant

Instant

Instant

Students

Overall

100

100/p

100

100

100

100

100

15

Aaron, Billy

81%

B+

83

80

87

78

100

70

5

Anderson, Louie

74%

B-

59

60

89

62

90

80

4

Chen, Jordan

1

79%

B

84

75

100

73

3

Foster, Andrew

1

73%

B-

85

89

90

3

Foster, George

1

76%

B

90

100

90

100

87

4

Garcia, Taylor

1

1

2

20%

F

60

Jobs, Dillon

1

1

50%

D+

100

Johnson, Aaliyah

86%

A-

100

99

68

100

91

5

Kim, Ji-hoon

93%

A

90

96

46

95

98

4

Maestro, Giovanni

80%

B+

82

88

25

100

72

3

Patel, Arjun

88%

A-

73

69

90

95

100

100

5

Robinson, Jack

84%

B+

87

70

90

70

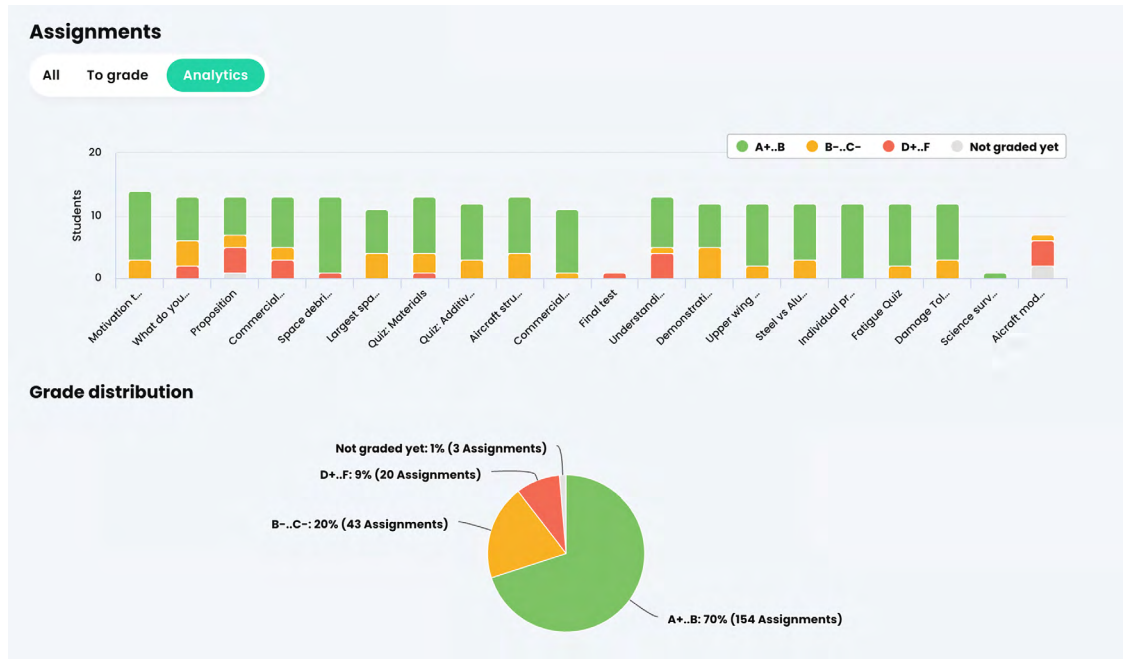
100

69

5

Assessment analytics

Teachers have access to instant analytics on students' progress and they can quickly identify where students might need extra help. In a class, you can see general analytics for all assignments and the grade distribution. These analytics are also accessible from the gradebook.



The Students tab in a class is the area where teachers can see the progress, scores and grades for each student.

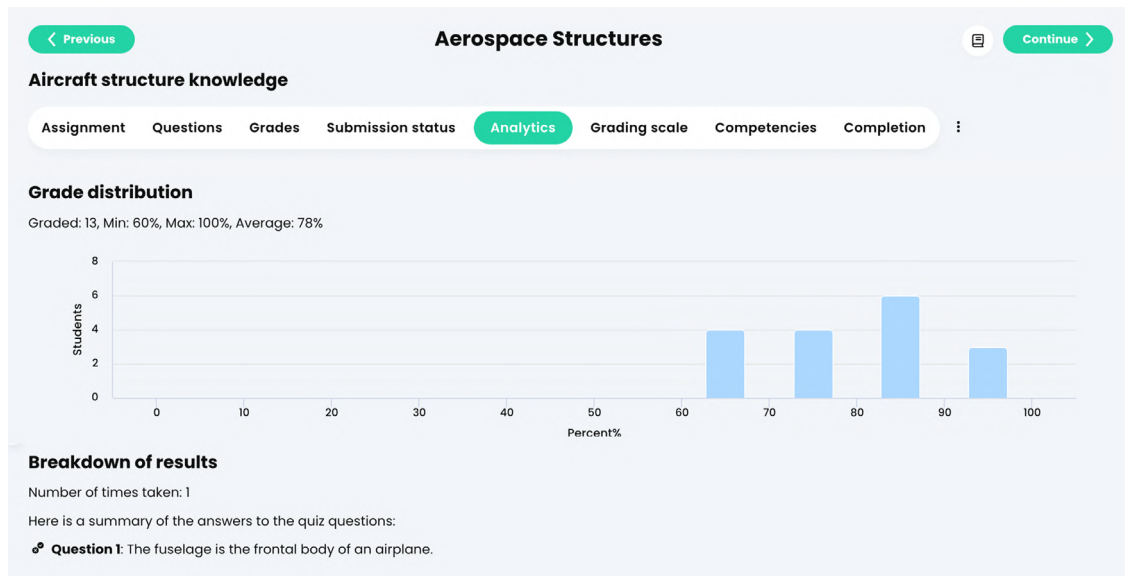
Students

Active 18 Completed Unenrolled Compliance

Message Grades Passwords Award Unenroll Transfer Deactivate Complete

| Name | Progress | Grades | Grade | Due | Awards | Mastery | Time hh:mm:ss | Enrolled Last visited | More |
|------------------|----------|--------|--------|-----|--------|---------|---------------|-----------------------------|------|
| Aaron, Billy | | | B+ 82% | - | 31 | | 03:34:10 | Sep 24, 2021 19 minutes ago | ⋮ |
| Anderson, Louie | | | B- 74% | 2 | 18 | | | Sep 24, 2021 1329 days ago | ⋮ |
| Chen, Jordan | | | B 79% | 2 | 15 | | 00:05:48 | Sep 24, 2021 15 minutes ago | ⋮ |
| Foster, Andrew | | | B 78% | 4 | 17 | | 00:00:15 | Sep 24, 2021 188 days ago | ⋮ |
| Foster, George | | | B 76% | 3 | 18 | | | Sep 24, 2021 Never | ⋮ |
| Garcia, Taylor | | | F 20% | 15 | 6 | | 00:14:25 | Dec 1, 2021 3 days ago | ⋮ |
| Jobs, Dillon | | | D 47% | 15 | 18 | | 00:01:20 | Mar 25, 2023 785 days ago | ⋮ |
| Johnson, Aaliyah | | | A- 86% | 3 | 17 | | 00:00:17 | Sep 24, 2021 1308 days ago | ⋮ |

Teachers can also see analytics for each assignment in the Analytics tab of an assignment.



The Grades tab of an assignment offers a convenient way to view all the grades associated with an assignment.

[< Previous](#) **Introduction to Aerospace Structures & Materials** [Continue >](#)

Motivation to join this course

Assignment **Grades** Submission status Analytics Grading scale Rubric Competencies Completion Grade rules

[Gradebook](#) [← Import](#)

| Student | Show/Grade | Submitted | Grade | Grade | Grader | Teacher comment |
|-----------------|------------|----------------|-------|---------|--------------------------|-----------------|
| Aaron, Billy | | Sep 27 8:08 am | 83 | B+ 83% | Mike Posner Sep 27, 2021 | |
| Anderson, Louie | | Sep 27 7:31 am | 59 | C- 59% | Mike Posner Sep 27, 2021 | |
| Chen, Jordan | | Sep 27 7:31 am | 84 | B+ 84% | Mike Posner Sep 27, 2021 | |
| Foster, Andrew | | Sep 27 7:31 am | 85 | A- 85% | Eva Garcia Nov 5, 2024 | |
| Foster, George | | Sep 27 7:31 am | 90 | A 90% | Mike Posner Sep 27, 2021 | |
| Garcia, Taylor | | Nov 5 7:23 am | 60 | C 60% | Eva Garcia Nov 5, 2024 | |
| Jobs, Dillon | | Nov 5 7:23 am | 100 | A+ 100% | Eva Garcia Nov 5, 2024 | |

About CYPHER Learning

CYPHER Learning exists to give learners the power to succeed in a rapidly changing world. Trainers, learning and development (L&D) pros, HR pros, and educators get everything they need in one platform to deliver faster, more personalized, and better learning outcomes. We provide the only all-in-one AI-powered

learning platform that is easy-to-use, beautifully designed, and built to power billions of learning moments every day. Create courses faster. Train and teach better. Learn even quicker. Experience our “just in time, just for you, just the way you want to learn” approach that puts people first.



To learn more about CYPHER Learning and our modern learning platform, visit us at

www.cypherlearning.com