

INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

INNOVATIVE LEARNING RESOURCES

For Students

by



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
SRI VENKATESWARA COLLEGE OF ENGINEERING
Karakambadi Road, Tirupati A.P-517507**



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Karakambadi Road, Opposite LIC Training Centre, Tirupati – 517 507.

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5.5. Innovations by the Faculty in Teaching and Learning

Innovations by the Faculty in teaching and learning shall be summarized as per the following description.

Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery , instructional methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction. Any contributions to teaching and learning should satisfy the following criteria:

- The work must be made available on Institute website
- The work must be available for peer review and critique
- The work must be reproducible and developed further by other scholars

The department/institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, significance of results, effective presentation and reflective critique. The term “Innovation” in teaching and learning is intrinsically quite broad in perspective and there are a number of views on how to define it. In the department of Electrical & Electronics Engineering of SVCE-Tirupati, we defined it as a strategy in teaching aimed at quantifiable gain to student outcomes and simpler class room communication alongside effective knowledge transfer.

Many of such innovative initiatives taken by faculty can be observed in our department. Though there are many such initiatives a few are not countable and may not be the majority.

1. Department Space submissions:

Lecture notes, practice problems and solved problems are regularly uploaded by the faculty in various electronic platforms for easy reach to students. Department Space repository of SVCE is one of the

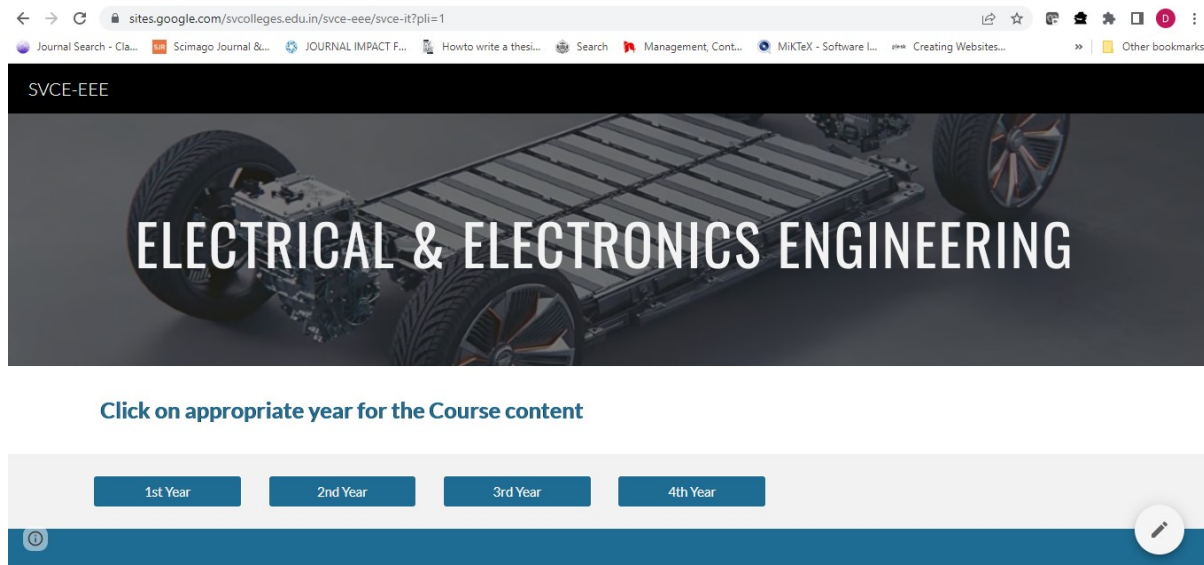


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best examples. The portal is directly accessible from the institutional website www.svce.edu.in. The submissions include power point presentations, articles, lecture notes, lab manuals, references and code books to help students.



<https://sites.google.com/svcolleges.edu.in/svce-eee/svce-it?pli=1>

S.N	Content	Web Link
Learning Resources		
1	Online free resource Information	http://svce.pbworks.com/w/page/146705451/E%20CONTENT%20USEFUL%20ICT%20LINKS
2	E Book Links	http://svce.pbworks.com/w/page/146705310/E-Books%20Links
3	E Learning	http://svce.pbworks.com/w/page/146705439/E-Learning
4	IEEE	https://ieeexplore.ieee.org/Xplore/home.jsp
5	J-GATE	https://jgateplus.com/home/
6	DELNET	http://delnet.nic.in/
7	NDL	https://ndl.iitkgp.ac.in/
8	MIT Open Learning Library	https://ocw.mit.edu/
College LAN Web Resource		
1	Free Online Learning Resources	https://172.17.200.14/drupal



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SVCE EEE Department Faculty You Tube Lecture Vedios		
1	Power Systems	https://youtu.be/l62p9WmuO8c
2	Power Systems	https://youtu.be/NS72731Vkrk
3	Power Systems	https://youtu.be/FOZeBtXQp9Q
4	Power Systems	https://youtu.be/Cq3Sx9VBRLM
5	Power Systems	https://youtu.be/p2CSNSLz5ek
6	Electric circuits	https://youtu.be/xf7W_2FuTfc
7	Electric circuits	https://youtu.be/0_rZR5vt7g
8	Electric circuits	https://www.youtube.com/watch?v=1C5KXauoOTc&t=8s
9	Electric circuits	https://www.youtube.com/watch?v=ixyynMd_Wlg
10	Electrical Machines	https://youtu.be/UhqV5hLRRis
11	Electrical Machines	https://youtu.be/Hw3zj6qMTGg
12	Electrical Machines	https://youtu.be/in2SUnR5GtQ
13	Electrical Machines	https://youtu.be/F43E6T4Qm6w
14	Power Electronics	https://youtu.be/KHqCwwcdQ8w
15	Power Electronics	https://youtu.be/KHqCwwcdQ8w
16	Power Electronics	https://youtu.be/O4VGZSvyeTo
17	Power Electronics	https://youtu.be/xP8TXfrSTds
18	Control Systems	https://youtu.be/6SXzh6XI77E
19	Control Systems	https://youtu.be/Sj2PbXn_ERc
20	Control Systems	https://youtu.be/LRa7Abxl0ZI
21	Control Systems	https://youtu.be/84EeQwySkQA
22	Electrical Measurements	https://youtu.be/GDLQ_XKZhXo
23	Electrical Measurements	https://youtu.be/2N_Mev-HoL8
SVCE EEE Department Digital Content		
1	Subject Digital Content	https://sites.google.com/svcolleges.edu.in/svce-eee/svce-it
Student Project Vedios		
1	Draught Management System By Sravan & Team	https://youtube.com/shorts/Ktckx2HtW7M
Virtual labs		
1	Electrical Virtual labs	https://www.vlab.co.in/broad-area-electrical-engineering



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2. Virtual labs:

As an initiative by the MHRD, in labs, relevant experiments are displayed to students with the help of simulations uploaded on the labs website <http://www.vlab.co.in/> such as Virtual High Voltage Lab, Substation Automation Lab etc.

Virtual Labs | An Initiative of Ministry of Education | Under the National Mission on Education through ICT

HOME ABOUT US BECOME NODAL CENTER OUTREACH PORTAL PARTICIPATING INSTITUTES NMEICT CONTACT US

Electrical Engineering

Home » Broad Areas of Virtual Labs

Labs ready for use

Virtual Laboratory For Simulation and Gaming Reference Books ▾ Syllabus Mapping ▾	IIT KHARAGPUR
Virtual High Voltage Lab * Reference Books ▾ Syllabus Mapping ▾	IIT KHARAGPUR
Substation Automation Lab Reference Books ▾ Syllabus Mapping ▾	NIT SURAT

Announcements

various projects/ICT initiatives of the Ministry of Education are available on the link given here. **Please click here for more details.**

* Please click here to see the tutorial for using the **Flash-based Labs** through **Virtual Box**.

Link: <https://www.vlab.co.in/broad-area-electrical-engineering>

Virtual Labs | An MHRD Govt of India Initiative

HOME ALL LABS PARTNERS CONTACT SEARCH FOR A LAB

Electrical Engineering

Introduction
List of experiments

Welcome to Electrical Machines!

- Load Test On Separately Excited DC Motor
- Speed Control of Separately Excited DC Motor
- No Load Test on Three Phase Induction Motor
- Blocked Rotor Test on Three Phase Induction Motor
- Open Circuit Test on Three Phase Alternator
- Short Circuit Test on Three Phase Alternator
- Load Test on Three Phase Alternator
- V and Inverted V curves of Synchronous Motor

Updates | VLEAD Blog | Contact : support@vlabs.ac.in | Follow us

Example Link:

<http://em-coep.vlabs.ac.in/List%20of%20experiments.html?domain=Electrical%20Engineering>



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3. MOOCS:

S.No	MOOCs Web Address
1	https://www.edx.org
2	https://swayam.gov.in
3	https://www.coursera.org
4	https://www.udemy.com/
5	https://www.udacity.com/

4. Miniature Scale Models:

In many relevant subjects, faculty encourage the students to make miniature working models of structures and design components. Thus, enhancing interest and level of learning.

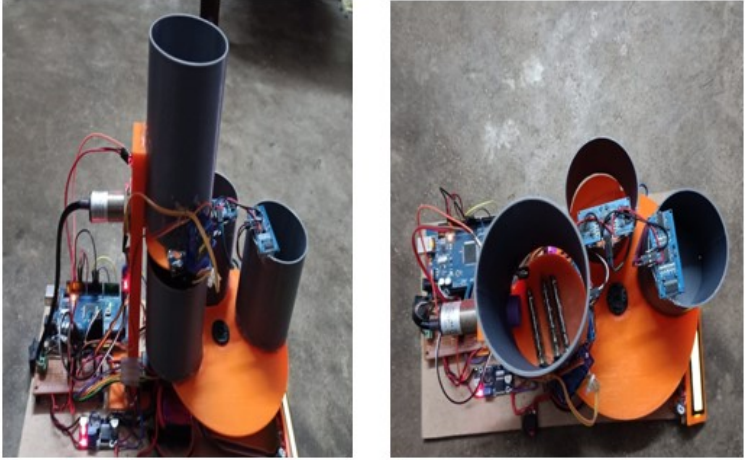

Title of the project	Faculty Name	Prototype Model
Intelligent Range estimator and Crash Detection for automobiles	Dr. K Sudheer	
Smart Gadgets for soldiers	R Sireesha	



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<p>Garbage Sustentation Systems</p>	<p>Dr. K Sudheer</p>	
<p>Smart Agree Assistant</p>	<p>Dr. P Suresh</p>	
<p>Solar Power Street Lighting System</p>	<p>Dr. V Lakshmi Devi</p>	



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<p>Dual Access Solar Tracking</p>	<p>Dr. Y V Krishna Redd</p>	
<p>Solar Based Smart Agriculture System</p>	<p>Dr. Kumar K</p>	
<p>Hybrid Renewable Energy System</p>	<p>Dr. K Ramakrishna Reddy</p>	



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<p>Energy Efficient System</p>	<p>P Vinod Kumar</p>	
<p>Intelligent Energy Efficient Bicycle</p>	<p>Dr P Suresh</p>	

THE
Student's Quick Guide
..... TO



GOOGLE CLASSROOM



By Kasey Bell

www.ShakeUpLearning.com

First Login

Google Classroom

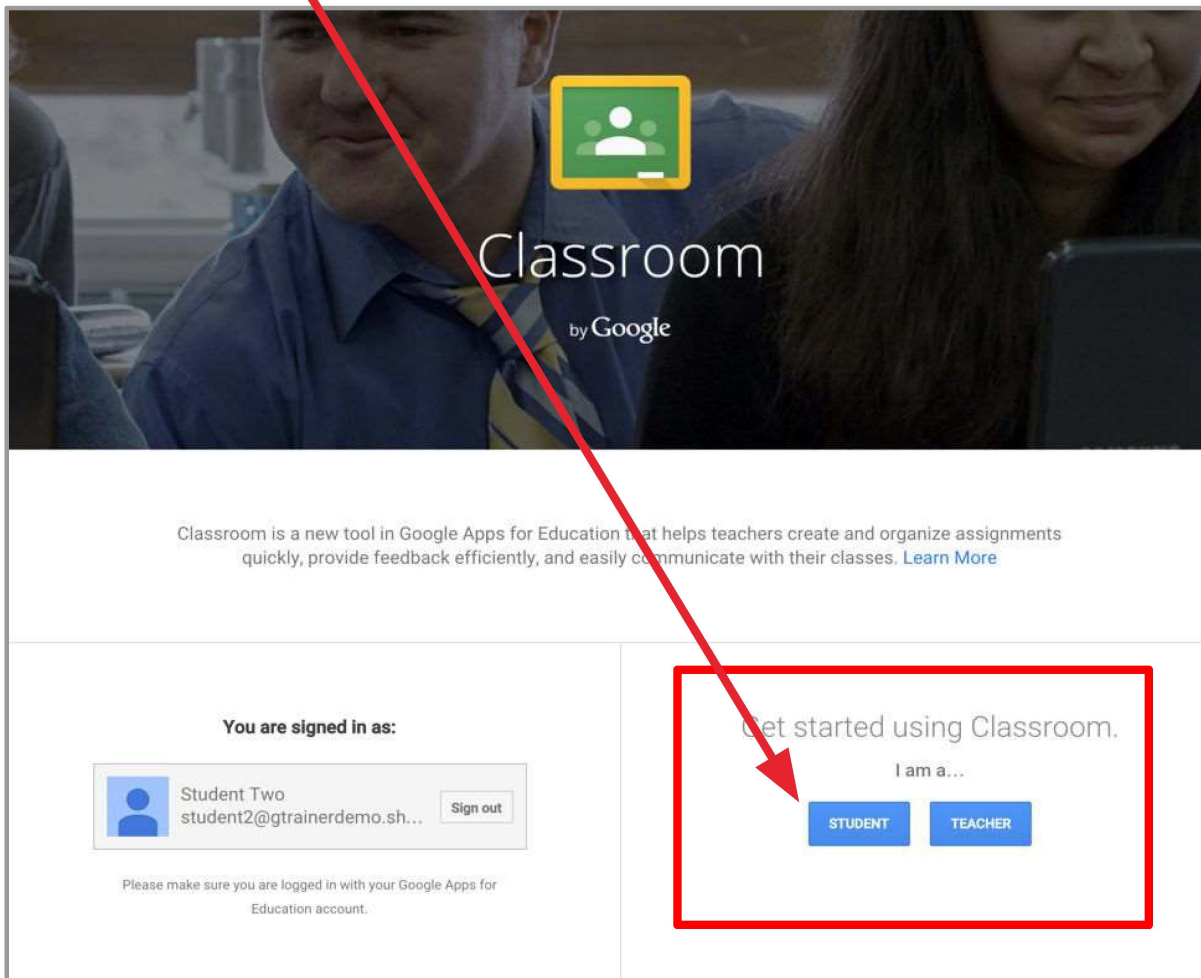
Google Classroom is designed to help teachers and students communicate and collaborate, manage assignments paperlessly, and stay organized. Google Classroom is part of the Google Apps for Education suite of tools and is only available to Google Apps for Education accounts.

First Login

Go to classroom.google.com.

The first time you arrive at the Google Classroom website you will see a screen like the one below.

Scroll down and **choose student** as your role.



Join a Class with a Class Code

Join a Class with the Class Code:

1. Go to classroom.google.com.
If it is your first login, be sure to select your role as **Student** (see previous page).
2. Click the + on the top right of the page to **Join Class**.
3. Enter the **Class Code** given to you by your teacher, and click **Join**.



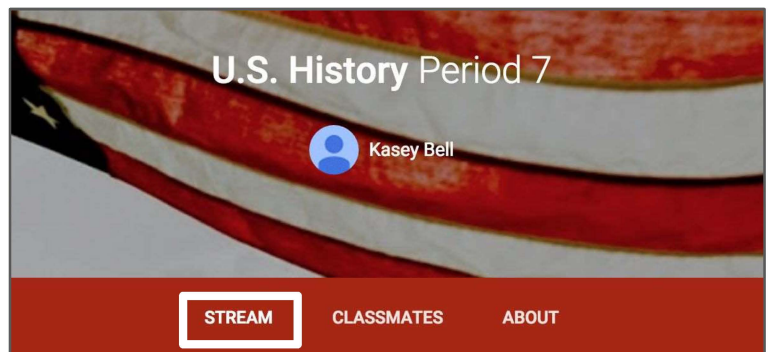
Enter class code to join.

CANCEL JOIN

Student's View: The Stream

The Stream is where students can view and access announcements, assignments, discussion topics, and comments. If enabled by the teacher, students can also add posts and leave comments.

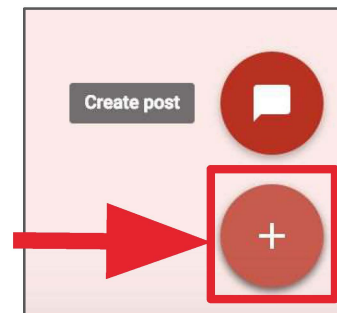
Below are directions and reminders for students.



Add a Student Post to the Stream:

Click the + in the bottom right of the screen, and then choose **Create Post**.

- Add the text of your class post. **Remember, this is viewable by your teacher and the entire class.**
 - Use the post to ask a relevant question about class or assignments, collaborate with other students in your class, or to share relevant resources related to the class subject and topics.
 - **Note:** Your comments are saved, even after they have been deleted. **Your teacher can always see what you share so keep it appropriate!**



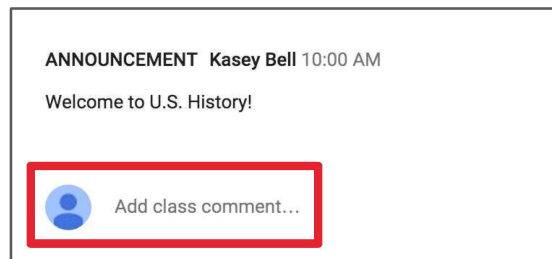
Optionally add other content to your posts:

- 1 **File Attachments:** files saved locally on your computer or device.
- 2 **Google Drive:** Files saved in your Google Drive.
- 3 **YouTube videos**
- 4 **Web Links** to outside websites, resources, etc.

Student's View: Announcements & Questions



Student's View of Announcements:

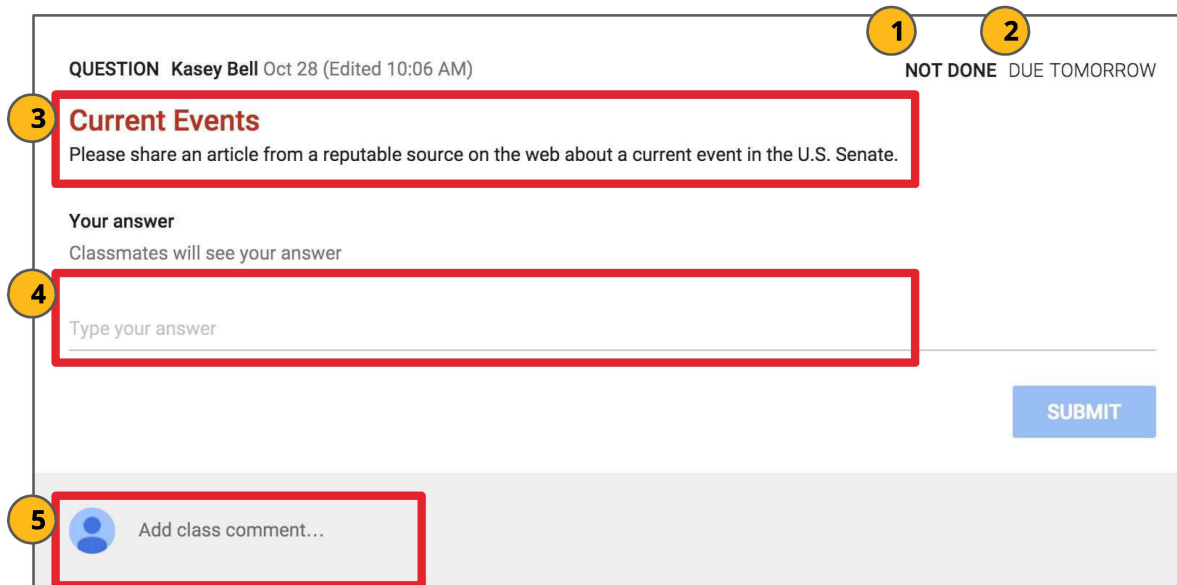
Announcements will appear in the **Stream**, and are generally read-only, but students have the option to leave a **class comment** if this has been enabled by the teacher. Class comments are viewable by the teacher and all students in the class. If the announcement has attachments, the students can also view the files, links or videos.



Student's View of Questions in the Stream:

When a discussion question has been assigned to students, it will immediately appear in the **Stream**. Students will see the following options in the **Stream**.

- 1 Completion Status (not done or done) 
- 2 Due Date (Students will also see if their assignment is **Late**.) 
- 3 Title and Description of the Discussion
- 4 Your Answer: This is where students type their answer. **Students must first submit their own answer before can they view other students' responses.**
- 5 Add a Class Comment: Use this space to ask questions or for general comments. **This is NOT where you type your answer to the question.**



Note: The title of the question is clickable and will take students to another page for that question. Students will still have the option to type their response on this page, but they will also see the option to leave a **private comment**, which is only viewable by the teacher. **Type your answer in the answer response field, not as a comment or private comment.**

Student's View: Assignments

Student View of Assignments:

Posted assignments will appear in the **Stream**. You may be prompted to refresh the **Stream** or assignment to see the latest updates. Students also have the option to leave a **class comment** if this has been enabled by the teacher. Class comments are viewable by the teacher and all students in the class.

Students will see the following information and options for each assignment in the **Stream**.

- 1 Completion Status (not done or done)
- 2 Due Date (Students will also see if their assignment is **Late**.)
- 3 Title and Description of the Assignment
- 4 Open: Click this button to open the assignment details page.
- 5 Add a Class Comment: Use this space to ask questions or for general comments.

ASSIGNMENT Kasey Bell 10:47 AM

1 NOT DONE 2 DUE NOV 13

3 #001 World War II Essay

Using the provided template, write a three-page essay summarizing the events of World War II.

4 OPEN

5 Add class comment...

Student's View: Turn In Assignments

The Turn In Button:

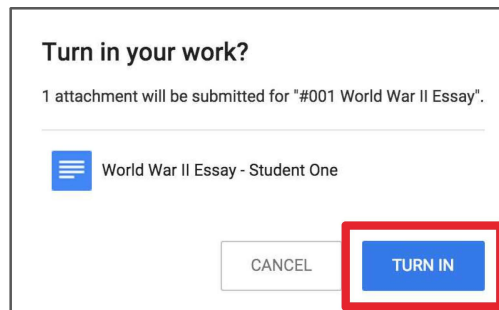
If the teacher has assigned a student their own copy of a Google file type (Docs, Slides, Sheets, or Drawings) as part of the assignment, there will also be a **Turn In** button (top-right) in the Google file next to the share button. (Note: The **Turn In** button changes the ownership of the file from the student back to the teacher, and the student can no longer edit the file.)

Students should submit their work using the **Turn In** button, NOT by sharing with the teacher. The teacher already has the right to view and edit the file.



Turning In Google Assignments:

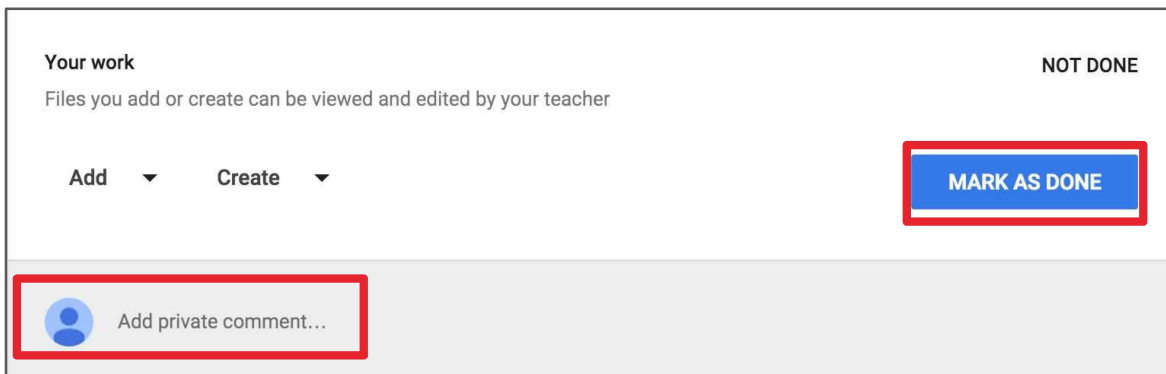
When a student clicks the Turn In button, a pop-up will prompt them to confirm their submission.



Turning In Other Types of Assignments:

If the teacher has assigned a collaborative Google file (student can edit the file), or other outside types of assignment, The student will see a **Mark As Done** button instead of Turn In. This option will only appear in Google Classroom, not in the file itself.

When students have completed the assignment, they simply click the **Mark As Done** button to let the teacher know they have finished. **Note:** The teacher does NOT receive an alert or email notification when work has been turned in, or marked as done. If a student is turning in late work, it is recommended that they leave a private comment to notify the teacher of late work or special circumstances.



Student's View: Assignment Details

Student View of Assignment Details Page:

Students should develop the habit of clicking Open or clicking on the title of the assignment to open the assignment details page. On this page, students will have additional options for the assignment.

- 1 Title of Assignment, Description, and Due Date**
- 2** Under **Your Work**, Students will see any file attachments or templates the teacher has created or attached for students. Note: **If the teacher has created a template for students to use, students should NOT Add or Create their own unless that is what the teacher has instructed.**
- 3 Add:** Here students can add their own files or links.
- 4 Create:** Here students can create new Docs, Slides, Sheets or Drawings.
- 5 Turn In/Mark As Done:** Students click the "turn in" or "mark as done" button when they have completed the assignment and are ready to submit. **MAKE SURE YOU ARE DONE BEFORE YOU SUBMIT!**
- 6** Add a **private comment**, which is only viewable by the teacher.

Due Nov 13

#001 World War II Essay **1**

Kasey Bell 10:47 AM Add class comment

Using the provided template, write a three-page essay summarizing the events of World War II.

2 Your work NOT DONE
Files you add or create can be viewed and edited by your teacher

World War II Essay - Student One
Google Docs

3 Add **4** Create **5** TURN IN

6 Add private comment.

Add **3** Create **4**

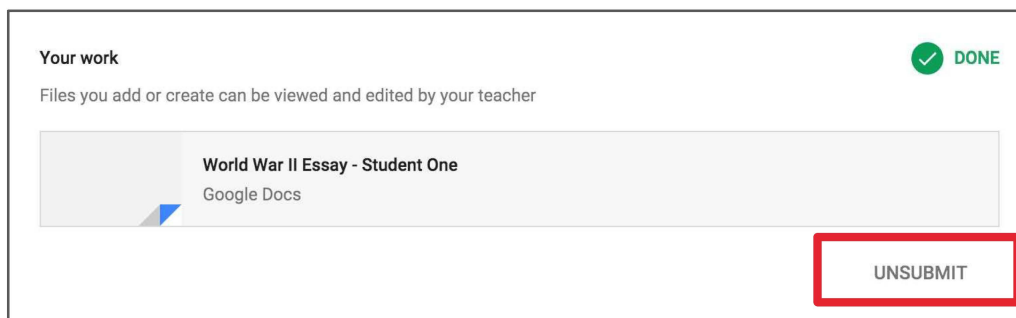
- Google Drive
- Link
- File

- Docs
- Slides
- Sheets
- Drawings

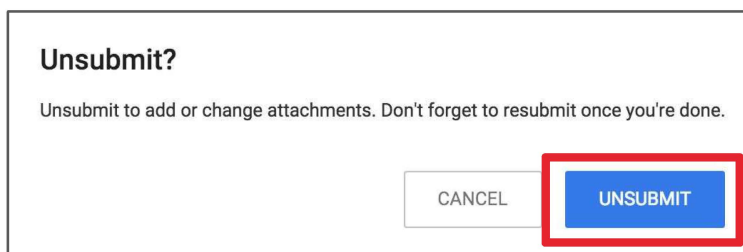
Student's View: Unsubmit Assignments

Unsubmit an Assignment:

If the assignment is a Google file type, it will become view-only for the student once it has been **Turned In**. If a student needs to revise or add attachments, they will need to click **Unsubmit**. The file can then be edited and revised again.



A pop-up reminder will appear to let students know they must resubmit once they have completed their revisions to the assignment. Click **Unsubmit** to confirm.



After the student has made their revisions or added or changed attachments, they will then need to click **Turn In** again to resubmit the assignment to Google Classroom.

Student's View: All Assignments

Student's View of Assignments Page:

Students can also see a list of their assignments for ALL of their classes by navigating to the **Assignments** page. Go to the menu (three lines) in the top-left, and select **Assignments**.

There are two tabs at the top of this page:

- 1 To-Do:** Here students can see a list of all of the assignments that are pending, including the title, class name and due date. Click on the assignment name to go directly to that assignment details page.
- 2 Done:** Here students can see a list of all of the assignments they have turned in or marked as done.

The screenshot shows the 'Student's View of Assignments' page. At the top, there are two tabs: 'TO-DO' and 'DONE'. The 'TO-DO' tab is selected and highlighted with a red box and a yellow circle containing the number '1'. The 'DONE' tab is also highlighted with a red box and a yellow circle containing the number '2'. Below the tabs is a dropdown menu for 'All classes'. The main content area shows a list of assignments under the heading 'Late'. The assignments listed are: '#002 Review Your Self-Assessment Results and Share Your Goals', '#001 Digital Fluency Pre-Assessment', '#003 Two Truths and a Lie!', and '#004 What is Meaningful Technology Integration?'. Each assignment entry includes the class name 'Commerce Digital Fluency 2015-16' and the due date 'due Sep 16'.




Classroom Tip!

Get the mobile app for your device so you can access Google Classroom anytime, anywhere. Bonus! The mobile app will send push notifications to let students know when they have a new assignment. Available for [iOS](#) and [Android](#).

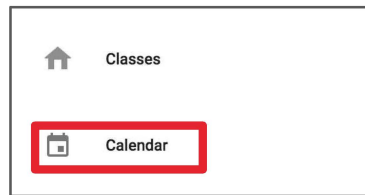
Google Calendar Integration

Viewing your Classroom Calendars:

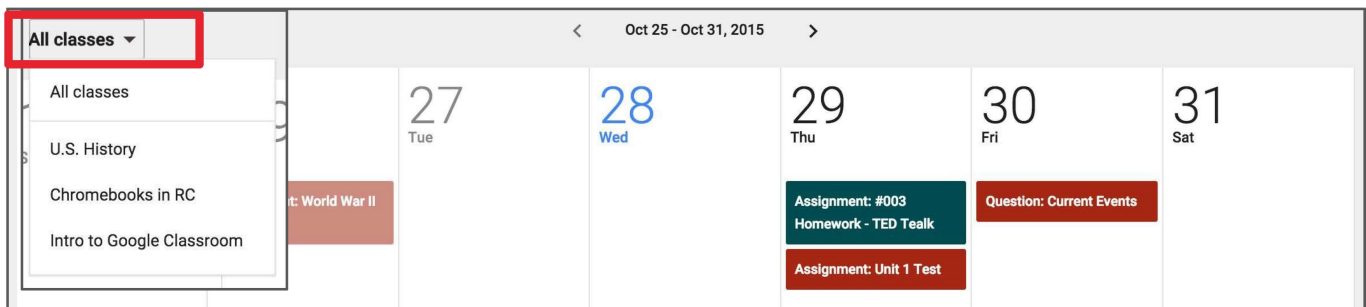
Google Calendar is integrated into Google Classroom, which makes it easy for students to see assignment due dates and more in one location. Each assignment or discussion question with a due date will automatically be added to that class's Google Calendar.

1.  Go to the Google Classroom Menu (three lines) near the top-left of your screen.

2. Select **Calendar**.



Here you can view a weekly calendar of all of your classes together, or filter for each class. You can also click on an assignment to go directly to that assignment details page.



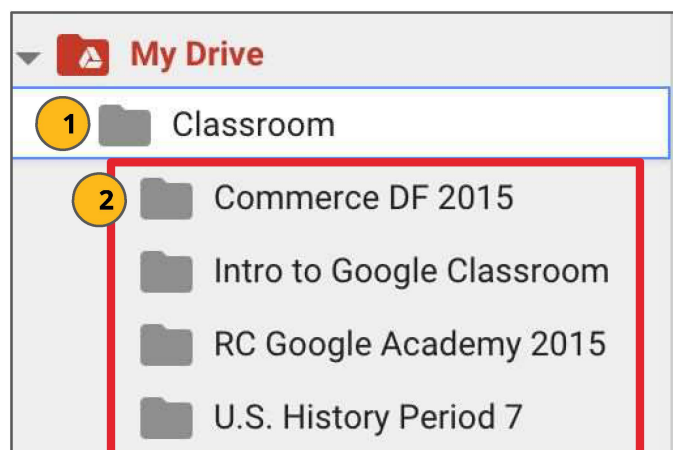
Google Drive Folders

Google Drive Folders:

Classroom will automatically create folders for you in Google Drive.

Inside your Google Drive (google.com/drive), you will find one master folder titled, "**Classroom.**"

- Inside the master Classroom folder is a subfolder for each class you have joined.
 - ◆ Inside each class folder you will also find other various files and folders depending on what your teacher has added to your assignments.

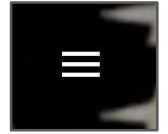


- 1 Master **Classroom** Folder
- 2 **Class Folders** created for each class you join in Google Classroom.

Navigation

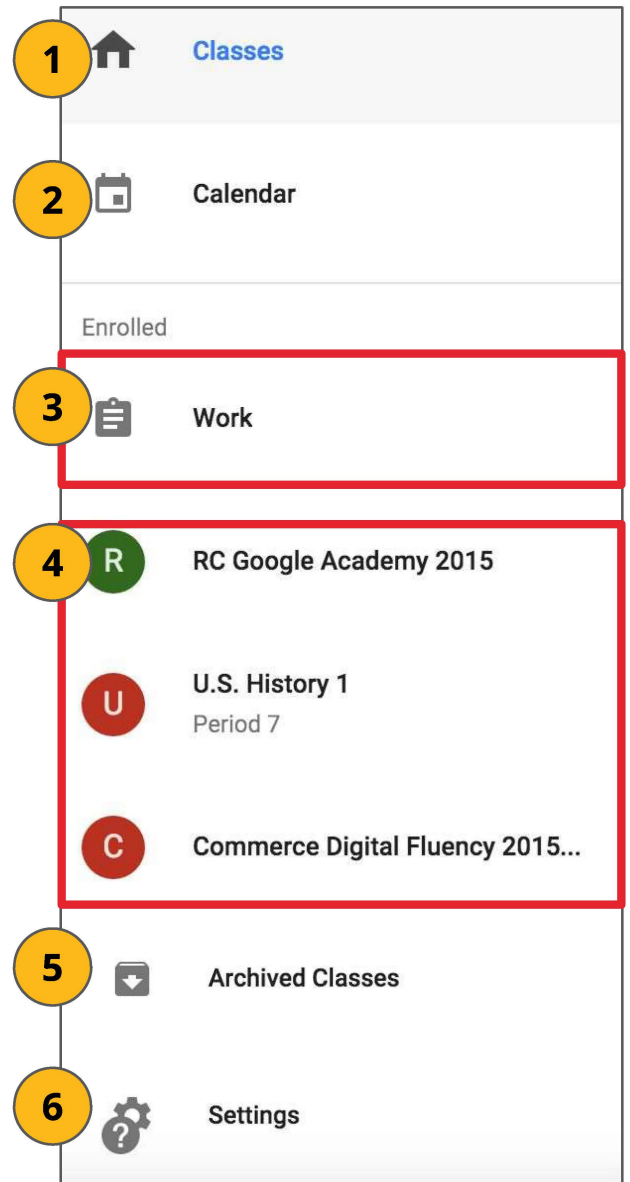
Google Classroom Navigation:

To navigate to your Google Classroom homepage and the other classes you have joined, click on the menu in the top-left of your screen (three lines). You can click on any section to go directly to that page.



In this menu, you will see the following options:

- 1 **Classes** (Google Classroom Homepage)
- 2 **Classroom Calendar**
- 3 **Work** (assignments related to your classes)
- 4 **Classes**
- 5 **Archived Classes** (Classes you are no longer enrolled in.)
- 6 **Google Classroom Settings:**
The last option at the bottom of your main menu on the Google Classroom homepage is Settings. Here, you can:
 - Change or add a profile picture
 - Go to your Google account settings
 - Turn on/off email notifications



Google Classroom Homepage

Google Classroom Homepage:

Below is an example of a Google Classroom homepage. There is a “card” for each class that you have joined.

- 1 Click the title of the class to go directly to that class.
- 2 Click the folder icon in the bottom-right of each card to go directly to the folder for that class in Google Drive.
- 3 **Unenroll:** DO NOT unenroll from a Class unless your teacher has instructed you to do so!

