



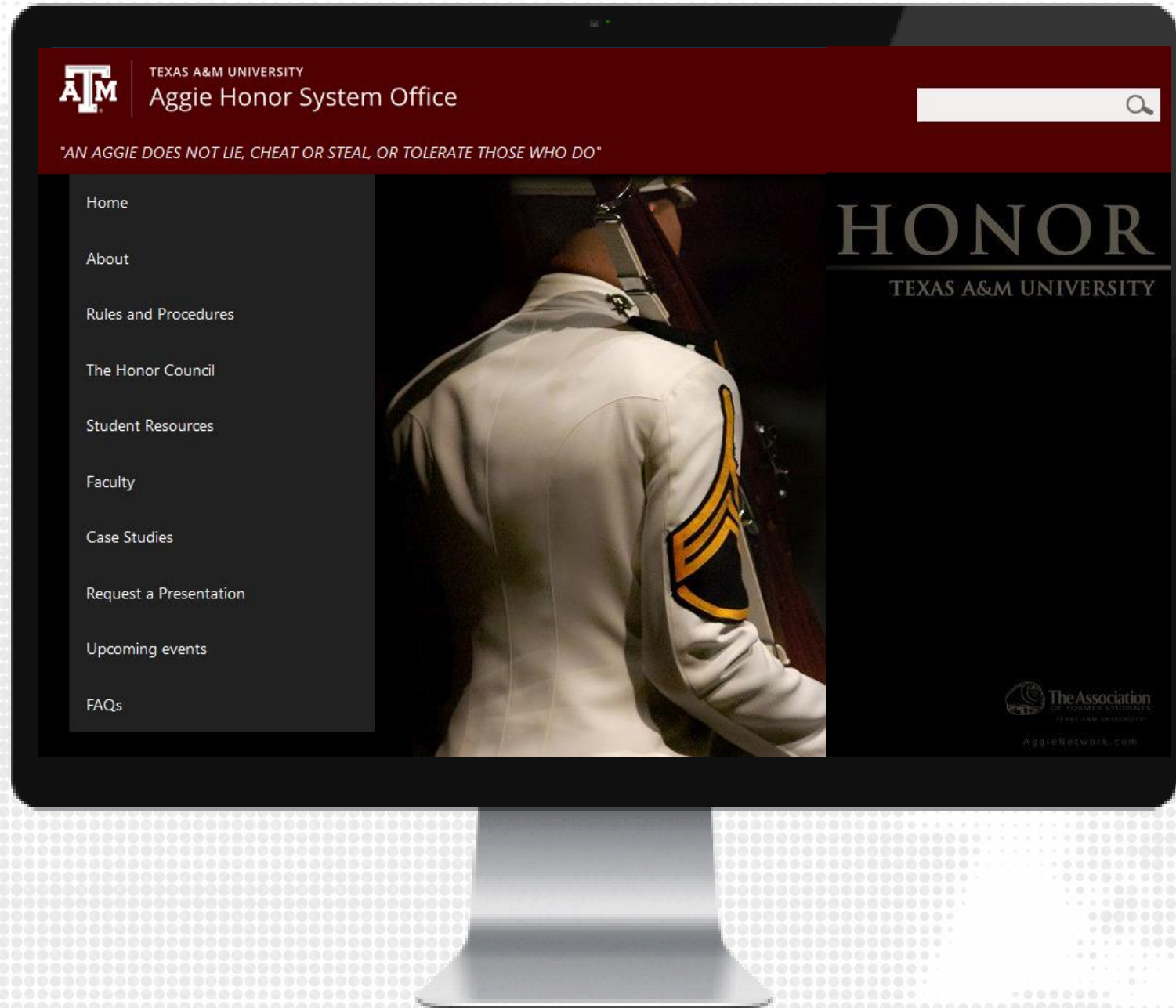
# PROCTORING WITH ZOOM

Presented by the Office for Academic Innovation

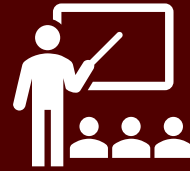
# DISCLAIMER

The Aggie Honor Code states:  
*"An Aggie does not lie, cheat  
or steal, or tolerate  
those who do."*

For more information,  
refer to the Honor Council Rules  
and Procedures at  
<http://aggiehonor.tamu.edu>.



# TRAINING OBJECTIVES



By the end of this training, participants will be able to:



Set-up and proctor an exam using Zoom



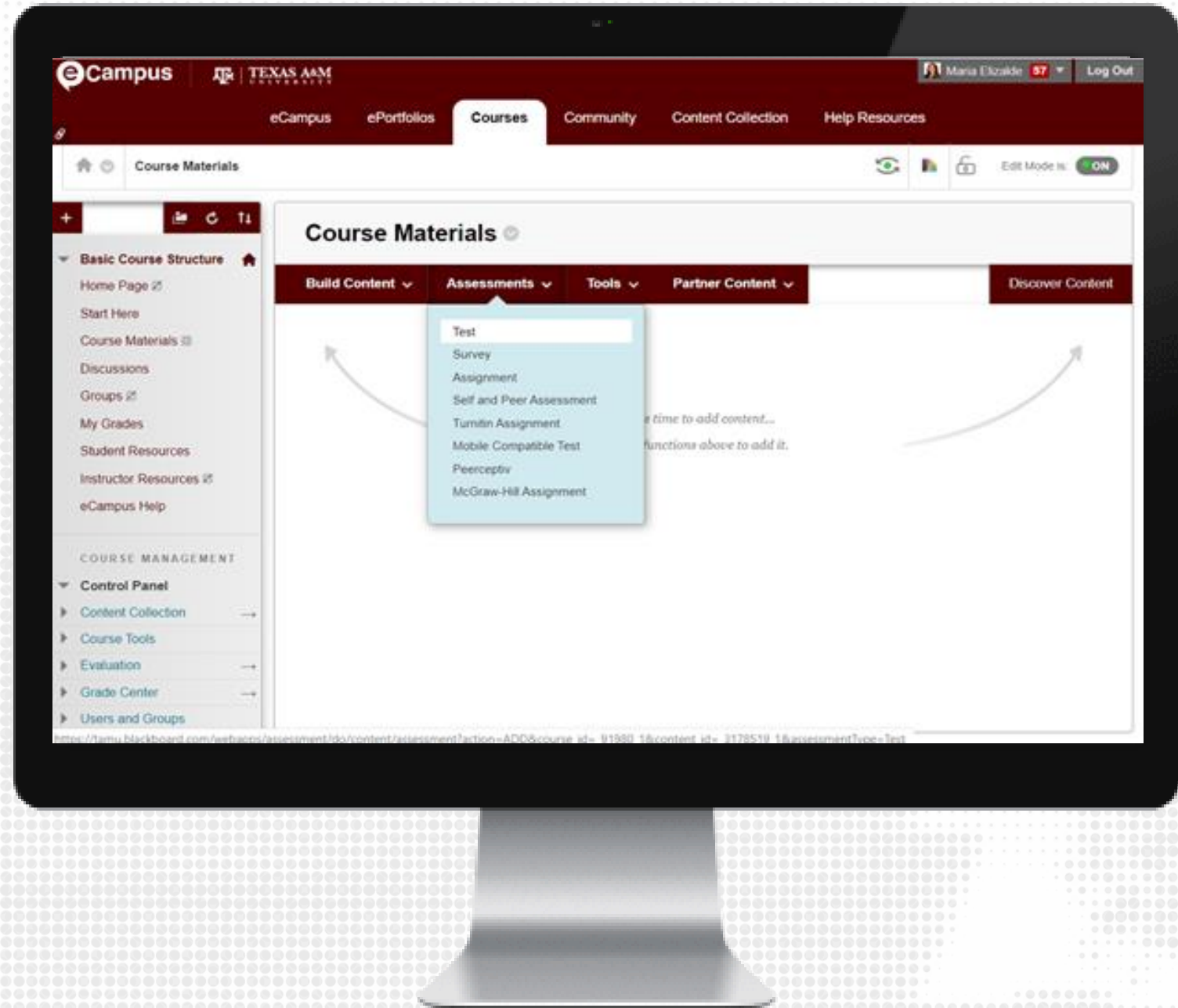
# GETTING STARTED



Computer requirements may need to be verified for optimized proctoring experience.

# CREATE EXAM IN ECAMPUS

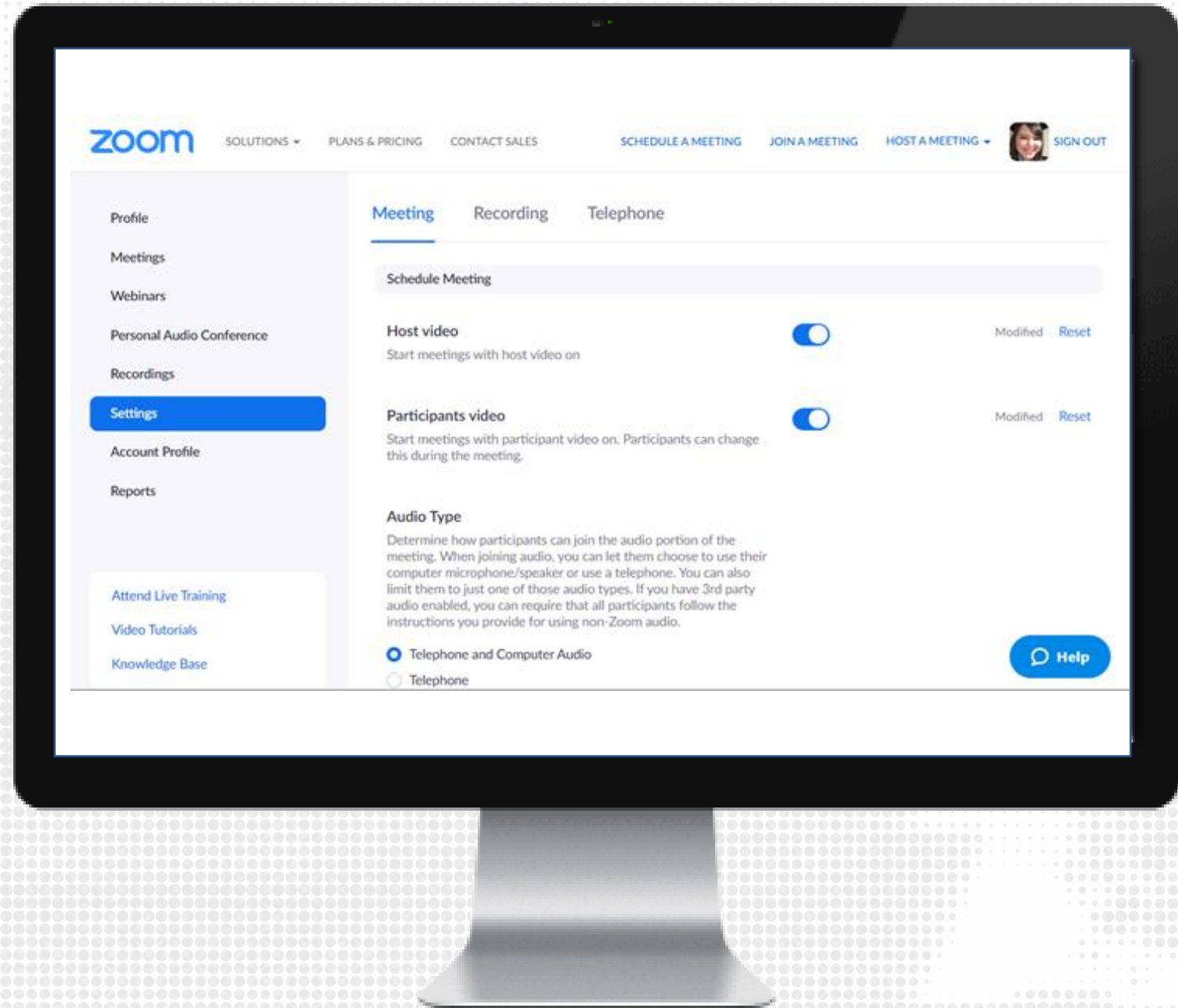
1. On the left-hand course menu, click on the Course Materials link.
2. Click on **Assessments**, then click on **Test**.
3. On the next window that appears, click on **Create**.
4. Set up the exam with desired settings and test options.



# RECOMMENDED ACCOUNT SETTINGS

Recommended account settings to enable through [tamu.zoom.us](https://tamu.zoom.us):

- Only authenticated users can join meetings
- Require a password when scheduling new meetings
- Mute participants upon entry
- Co-host
- Allow host to put attendee on hold
- Waiting room



## IDENTIFY AND ASSIGN PROCTORS

1. Create groups up to 48 students each (or less than 48 students depending on computer requirements)
2. Assign a proctor, such as a teaching assistant, to proctor each group
3. Each proctor will create their individual session for their assigned group





# SCHEDULE PROCTORING SESSION

1. Login to tamu.zoom.us
2. Click **Schedule a new meeting**
3. Enter the meeting settings:
  - Registration
    - required (*select no if opting for only authenticated users can join*)
  - Meeting Password
    - Assign a password or allow ZOOM to automatically generate one for you
  - Video
    - Host: ON
    - Participant: ON

Profile

Meetings

Webinars

Personal Audio Conference

Recordings

Settings

Account Profile

Reports

[Attend Live Training](#)

[Video Tutorials](#)

[Knowledge Base](#)

[My Meetings](#) > Schedule a Meeting

Schedule a Meeting

Topic

EXAM 1 PROCTORING SESSION

Description (Optional)

Enter your meeting description

Use a template

Select a template ▾

When

04/01/2020



2:00 ▾

PM ▾

Duration

2 ▾

hr

0 ▾

min

Time Zone

(GMT-5:00) Central Time (US and Canada) ▾

☐ Recurring meeting

Registration

☒ Required

Meeting ID

☒ Generate Automatically

☐ Personal Meeting ID 767-199-8038

Meeting Password

☒ Require meeting password

882502

Video

Host

☒ on

☐ off

Participant

☒ on

☐ off

Audio

☐ Telephone

☐ Computer Audio

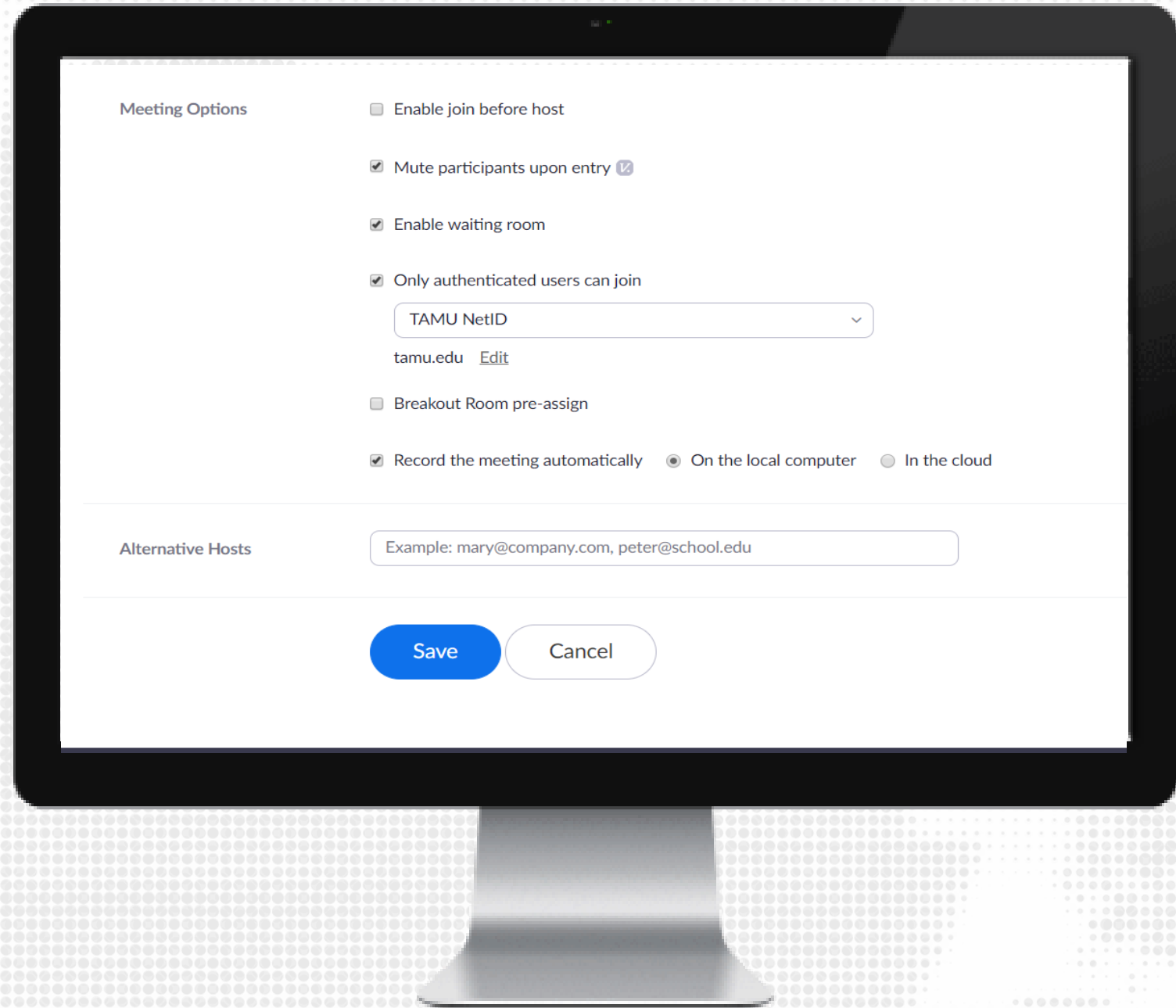
☒ Both

Dial from United States of America [Edit](#)





# MEETING OPTIONS (cont'd)

DISABLE enable join before host  
ENABLE Mute Participants upon Entry  
ENABLE Enable waiting room  
ENABLE Only authenticated users can join - select TAMU NetID  
(from the drop-down)  
ENABLE Record the meeting – On the local computer (for privacy reasons)  
**Alternative hosts** (if necessary):  
enter the email of anyone that would need access to the proctoring session as a proctor (additional TA, faculty, support staff, etc).



The screenshot shows a 'Meeting Options' dialog box on a computer monitor. The interface is clean and modern, with a white background and black text. The 'Meeting Options' section is at the top, followed by a list of settings. The 'Alternative Hosts' section is at the bottom, with a text input field and two buttons: 'Save' and 'Cancel'.

Meeting Options

- ☐ Enable join before host
- ☒ Mute participants upon entry 
- ☒ Enable waiting room
- ☒ Only authenticated users can join
  - TAMU NetID 
  - tamu.edu [Edit](#)
- ☐ Breakout Room pre-assign
- ☒ Record the meeting automatically
  - ☒ On the local computer
  - ☐ In the cloud

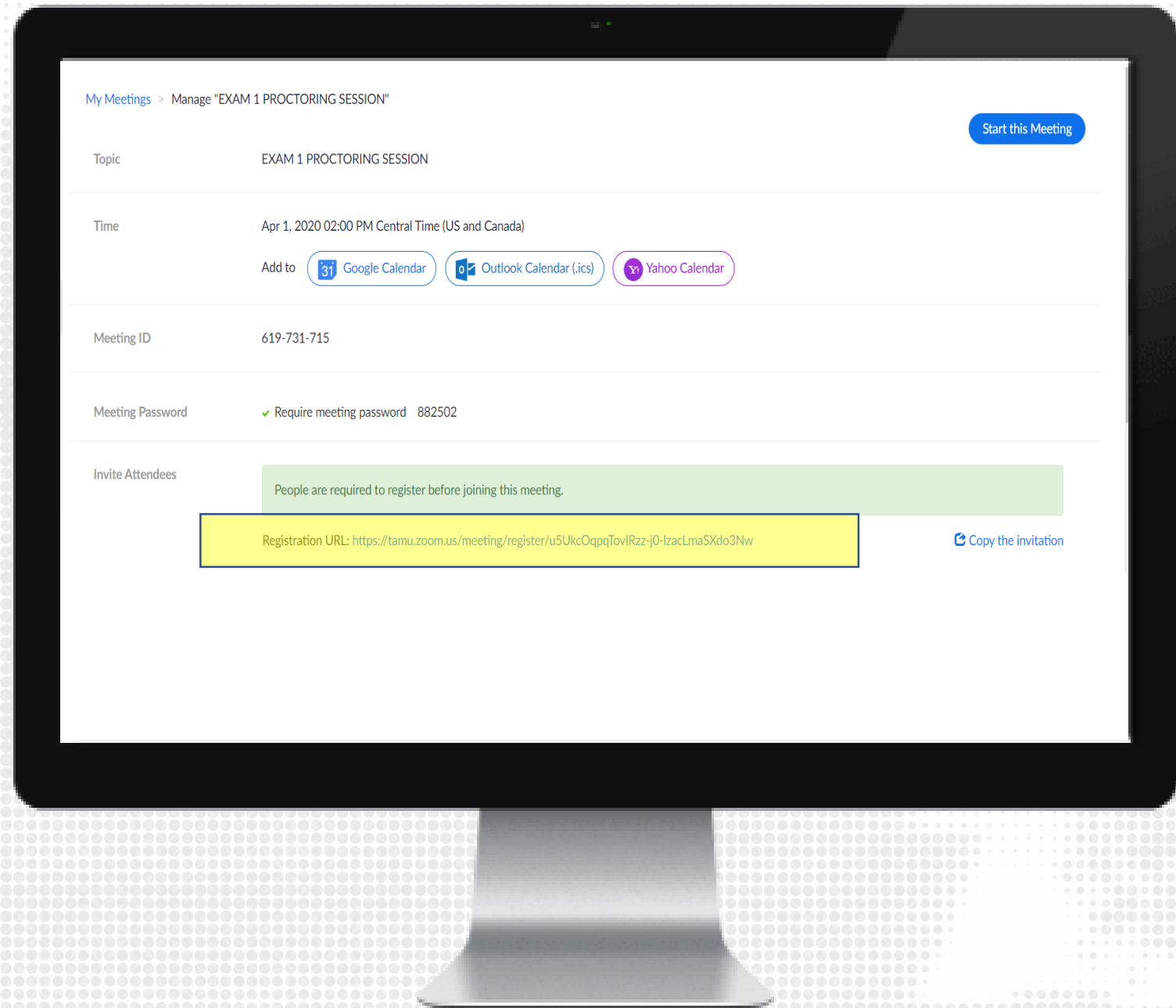
Alternative Hosts

Example: mary@company.com, peter@school.edu

[Save](#) [Cancel](#)

# SHARE REGISTRATION LINK

1. Once session is scheduled, the registration link and invitation are provided. Click Copy the Invitation and paste it into your preferred communication channel with students.
2. Students will register for the exam session and receive a unique link to access the session.



# TECHNOLOGY REQUIREMENTS

Determine technology requirements for the exam proctoring session:

- **ONE DEVICE:**

- laptop or desktop to access eCampus with a webcam for Zoom proctoring
- Smartphone may be necessary if no webcam is available

- **TWO DEVICE:**

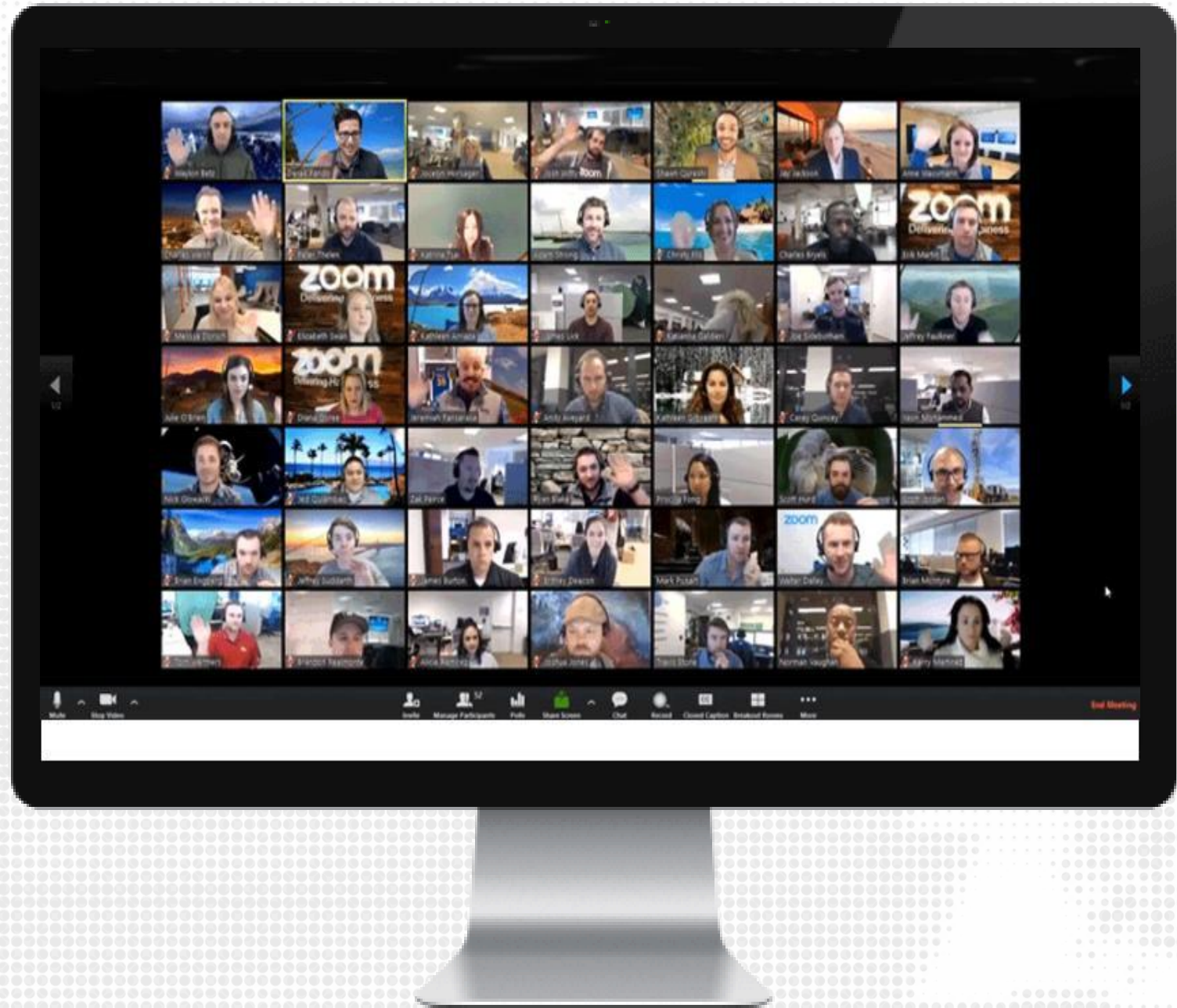
- Device 1: laptop or desktop to access eCampus
- Device 2: smartphone or tablet for Zoom proctoring





# ONE DEVICE OPTION

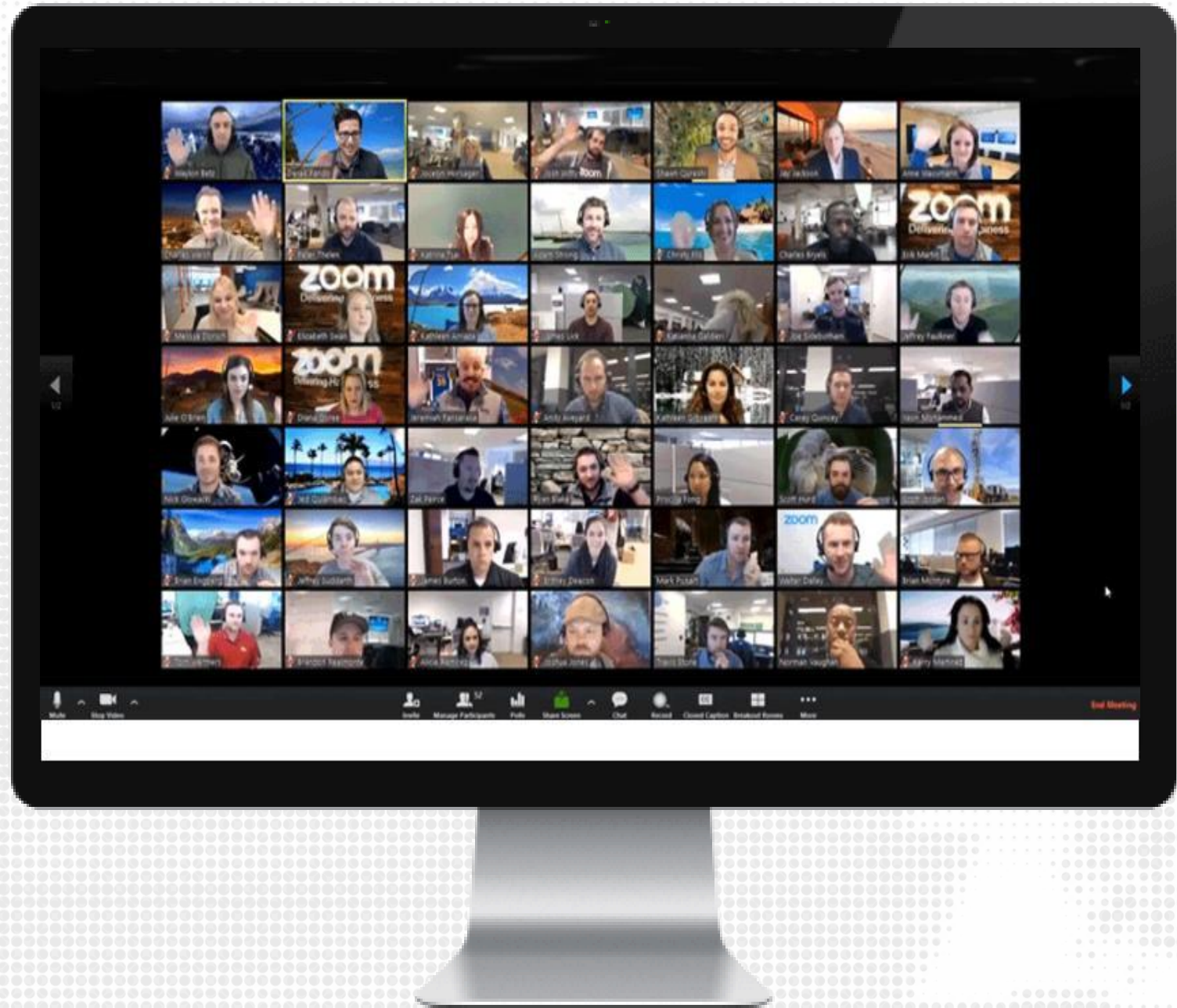
Simply using Zoom to monitor your students while taking a test. This is an efficient way to monitor students as they take their online test.





# ONE DEVICE OPTION

Test takers will use the laptop / desktop webcam enabled video to connect with ZOOM, or if necessary they can access Zoom via a smart phone. Test takers should understand that they will be monitored and recorded and their face should be visible at all times, in addition to the all other proctoring rules set by the professor.



# ONE DEVICE OPTION

Once cleared by the proctor, test takers will use laptop or desktop to access and take their exam, while being monitored and recorded via Zoom.





# TWO DEVICE OPTION

Using two devices adds an extra layer of security during higher stakes testing. This option provides for a better viewing angle for the workspace (desk, computer, etc.) and prevents students from using the cell phone itself during the exam.



# TWO DEVICE OPTION

Test takers will use a laptop or desktop to complete the test, and also use a second device, such as a smartphone or tablet to connect via Zoom for proctoring.





# TWO DEVICE OPTION

This solution requires:

A device such as a laptop or desktop computer for the online exam.

A second device such as a smartphone or tablet for the exam proctoring session via Zoom.



# STUDENT VIEW

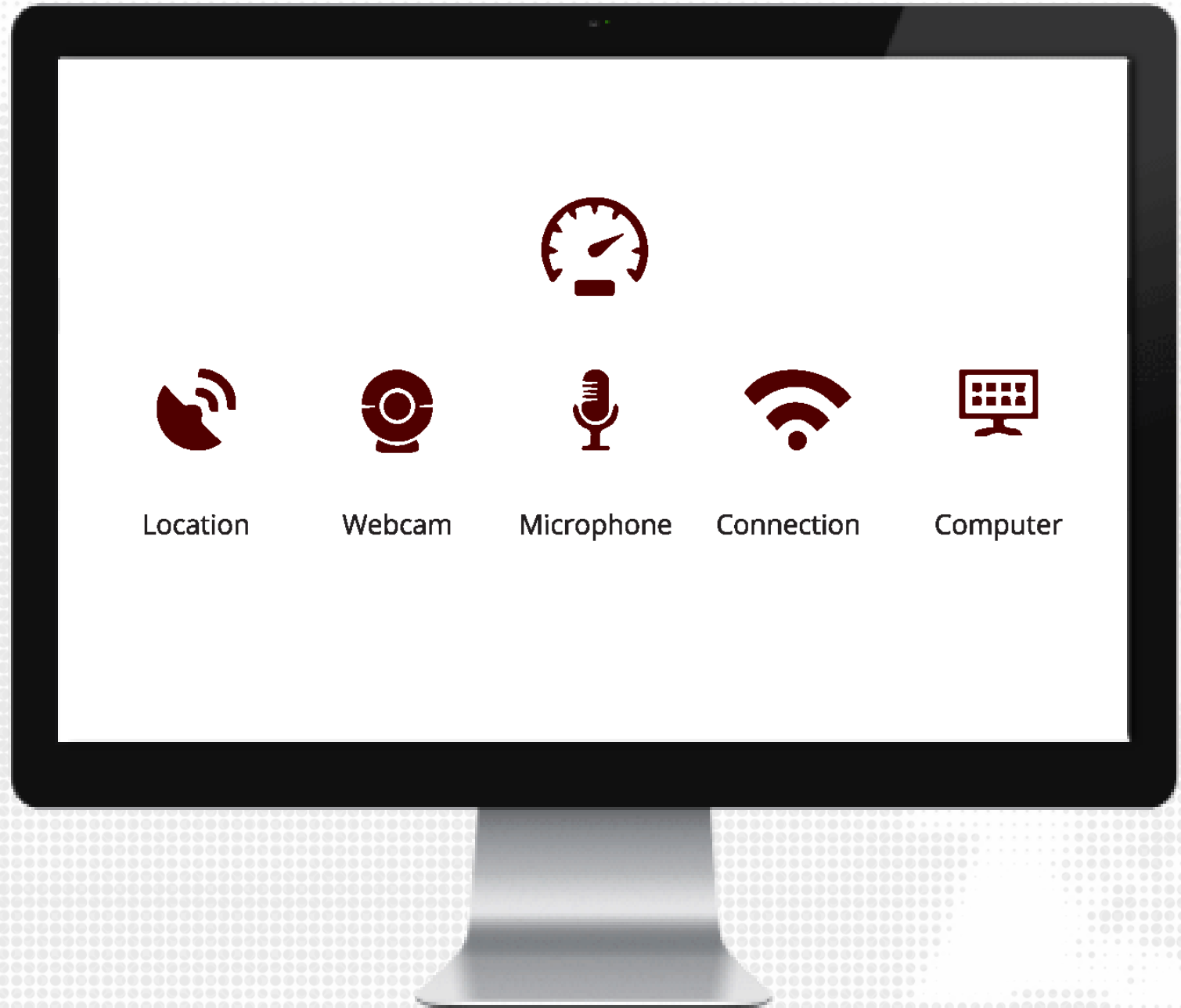
It may be useful for every student to be proctored through their smartphones which provides an opportunity for a better viewing angle for the workspace (desk, computer, etc.) and prevents students from using the cell phone itself during the exam.



# PREPARATION FOR SESSION

Proctors should inform students to join the session at least 30 minutes prior to the exam window begins to troubleshoot and authenticate.

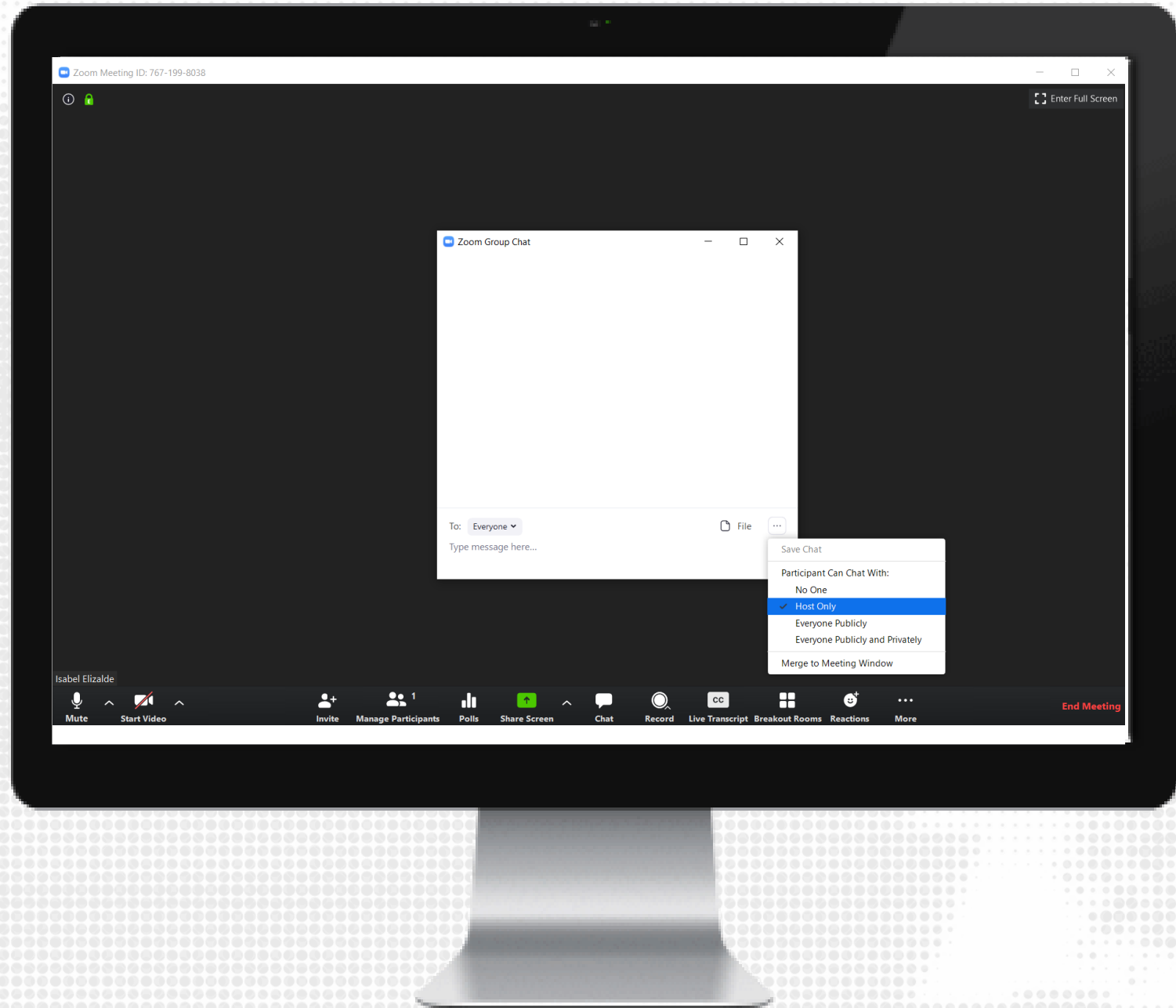
Proctors should also create a Pre-check Session at least 24 hours prior to the exam to ensure students are prepared for the proctoring session.





# STARTING THE SESSION

- Proctor will start the meeting by either logging in to tamu.zoom.us or using the Zoom desktop client
- Once the session is started, proctor will:
  - Chat
    - Change to Participants Can Chat With: Host only
  - Manage Participants
    - Admit students one-by-one from the waiting room to validate their identities
    - Mute participants, if necessary
  - Record
    - Record the meeting locally or to the cloud (whichever is preferred)





# AUTHENTICATE STUDENTS

Recommended authentication methods:

- TAMU Student ID
- Howdy roster (image used is the same as the TAMU Student ID)



TEXAS A&M  
UNIVERSITY



**Reveille IX**

First Lady of Texas A&M

123456789

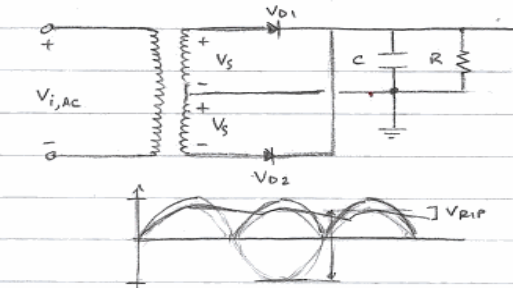
# EXAM EXPECTATIONS

Proctor will state the exam proctoring session expectations, including:

- How to ask proctor questions
- What to do when exam is completed
- What is allowed or not allowed during the exam (scratch paper, calculators, book, notes, etc.)

\* PIV = PEAK INVERSE VOLTAGE ACROSS DIODE (MAX REVERSE)

### FULL-WAVE PEAK RECTIFIER

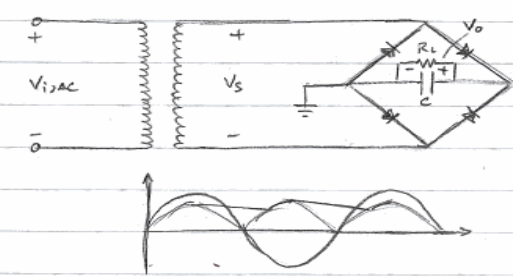


EX VALUES:

- $V_o = 15V$
- $V_{max} = 16V$
- $V_s = 16.7V$
- $V_{PK-PK} = 32.7V$

- $V_{RIP} = \frac{V_{max}}{2fRC}$
- $V_{max} = \frac{1}{2} V_{RIP} + V_o$
- $V_s = V_{max} + V_D$
- $V_{PK-PK} = 2V_s - V_D$
- $PIV = (100\% + x\%)(V_{PK-PK})$
- $I_{D,AVG} = \left(\frac{V_o}{R}\right) \left(1 + \pi \sqrt{\frac{V_{max}}{2V_{RIP}}}\right)$
- $V_{s,rms} = \frac{2V_s}{\sqrt{2}}$
- $I_{D,max} = \left(\frac{V_o}{R}\right) \left(1 + 2\pi \sqrt{\frac{V_{max}}{2V_{RIP}}}\right)$

### FULL-WAVE BRIDGE PEAK RECTIFIER



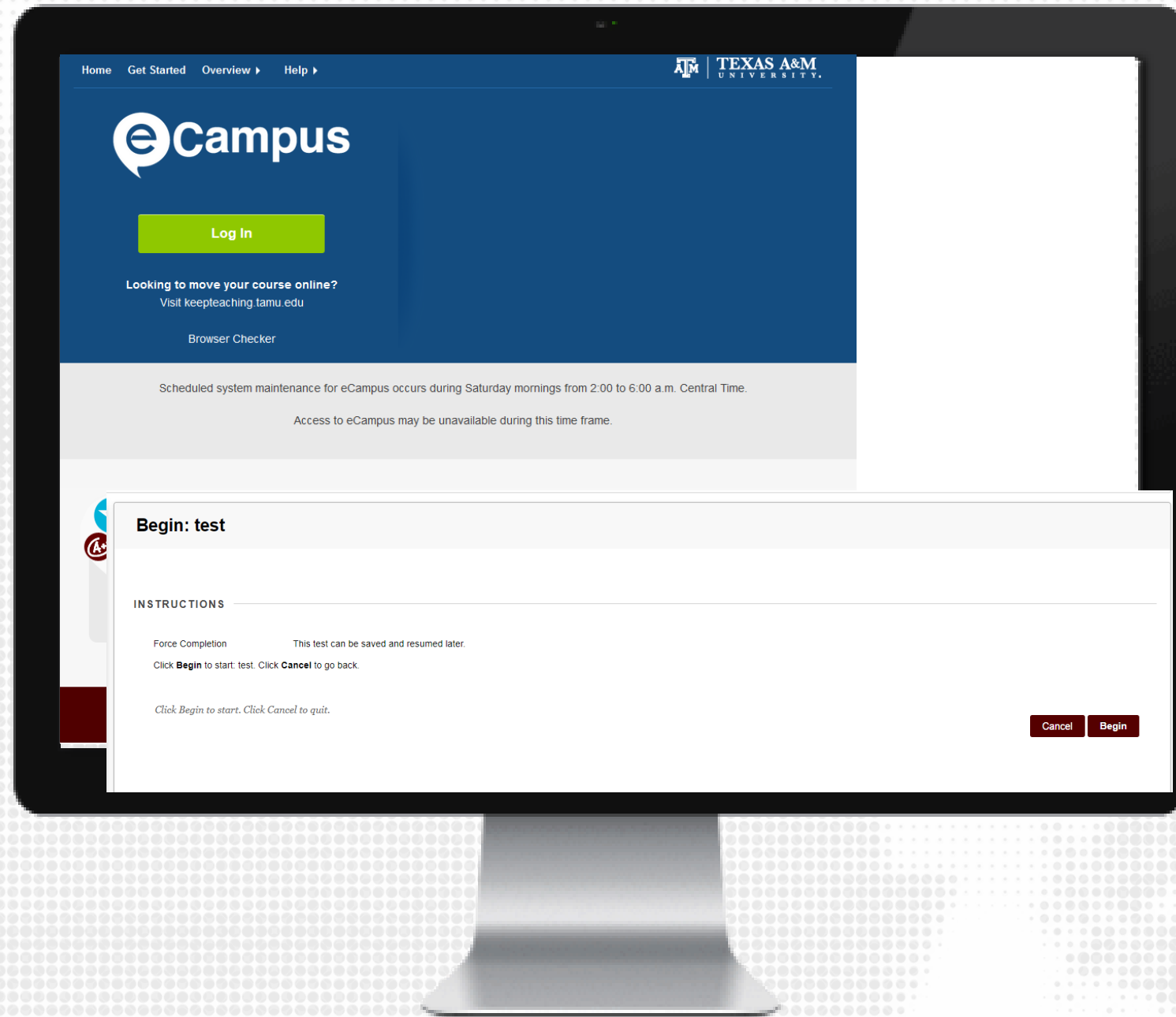
- $V_s = V_o + \frac{1}{2} V_{RIP} + 2V_D$
- $V_{s,rms} = \frac{V_s}{\sqrt{2}}$
- $V_{RIP} = \frac{V_{max}}{2fRC}$
- $V_{max} = \frac{1}{2} V_{RIP} + V_o$
- $V_{-PK} = -V_{max} - V_D = V_{max, REVERSE}$
- $PIV = (100\% + x\%) |V_{-PK}|$
- $I_{D,AVG} = \left(\frac{V_o}{R_L}\right) \left(1 + \pi \sqrt{\frac{V_{max}}{2V_{RIP}}}\right)$
- $I_{D,max} = \left(\frac{V_o}{R_L}\right) \left(1 + 2\pi \sqrt{\frac{V_{max}}{2V_{RIP}}}\right)$

\*  $I_{D,AVG} = \text{AVG } I \text{ THROUGH DIODE DURING CONDUCTION}$

M. Nash  
2010

# ACCESS ECAMPUS

- Students will navigate and login to eCampus to locate their exam.
- When the exam window opens, they will click Begin.





# DURING THE EXAM

During the exam, proctors can click on individual student's videos to expand their view.

If a problem arises with a student during the exam, proctor can Chat with the individual student.

Proctor can then decide if they need to move the student to a Breakout Room.

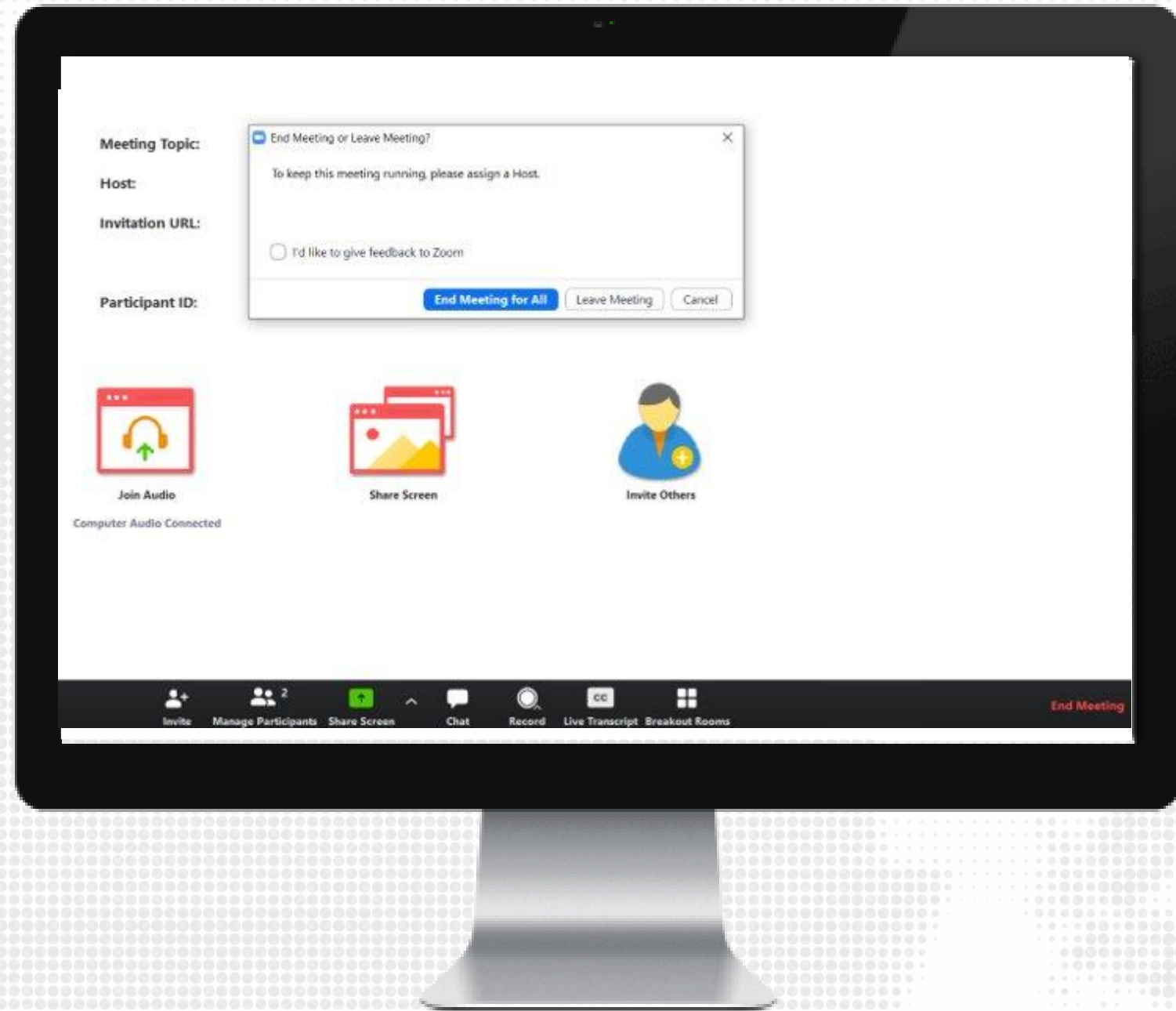
If a student has a question, they should Chat with the proctor.





# ENDING THE SESSION

- Students can Chat with the proctor to inform them they are complete. Proctor will verify exam submission and dismiss student.
- At the end of the exam window, proctor will notify students and will require them to submit their exams via eCampus.
- Proctor will stop the recording and end the session.



# RESOURCES

KEEPTeaching.TAMU.EDU

SUPPORT

- [AIHelp@tamu.edu](mailto:AIHelp@tamu.edu)
- 979-458-3417