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# If you have problems with access, faculty or trainee registration, contact cortexsupport@acr.org

STARS (Standardized Tool for the Assessment of Radiology Students) is a collaborative effort of the Alliance of Medical Student Educators in Radiology (AMSER) and the American College of Radiology (ACR), which provides medical schools with a national, web-based question item database and exam taking system that can be used to assess students throughout their radiology courses.

The question item database has been transferred over from Radiology ExamWeb (REW) and consists of over 2,800 questions. At launch, exams that have been created by the editorial board (Standardized Exams, SE) will be available for all users. Exams previously constructed by instructors will be available to their own institutions only.

Additional exams will be available on the public site in future. Please note that the complexities of question transfer from REW means that there are some areas that are a work in progress currently.

For the first year after launch, STARS will be offered as a <u>free product</u>. Thereafter, there may be a charge associated with its use (still under discussion). The website will be updated to reflect any changes regarding fees.

Note that we are continuing to improve and add to the software and content during this period. Currently, users will have the ability to:

- Review exam content
- Schedule exams to appropriate students to be taken during a specified period
- Immediately review the results, with comparisons to other students at your institution and nationally (as soon as sufficient examinees have taken the exam)
- Track results over time, within specialty and modality
- Compare your institutional overall results with other institutions
- Automatic emails to inform your students that exams are scheduled and available
- Make your own exams from the database of guestions

#### STARS deployment and reporting summary

- 1. Use The Library Page to select the exam level and specialty appropriate exam for a student to take
- 2. Exam content can be reviewed on the <a>Exam details Page</a>.
- 3. Use the <u>The Assign Exam Page</u> to assign the exam to a student (s) and select the date range that they will take it within.
- 4. Students should receive automatic emails that they will find exams on their <u>Institutional Portal Interface</u> available to be taken within those dates.

- 5. Track exam completion via the <u>The Dashboard Page</u>.
- 6. Check results of all exams with institutional and national comparisons via the The Reports Page.

#### Anticipated use

We anticipate that programs will assign the appropriate exam to their students during their last few days of a rotation, although the timing will be at the program's discretion. For example, this could be a window from Wed-Fri in the last week of the rotation or a set day each rotation (see <u>The Assign Exam Page</u>). Exam levels run from 1->5, with each level corresponding to the year of medical school (for example, exam level 1 = 1<sup>st</sup> year medical student).

- Students will be sent automatic emails on the day that their exam opens, the last day and also when overdue.
- All exams can be found on the <u>Institutional Portal Interface</u>, under 'Not Started' when available to be taken, and 'In Progress' when started or incomplete.
- Proctoring is not required although suggested, <u>but please see the honor code below.</u>
- Programs can use any or all exams as they feel appropriate.
- In general, having narrower exam windows makes best use of the automatic email reminders

### Using the results of STARS

STARS results can be used for continuous medical student evaluation and assessing students that need remediation.

#### Medical student benefits

STARS gives students the ability to assess their general and specialty specific radiology knowledge base, and compare their results with other comparable students locally and nationally. Please note: **STARS is NOT a self-study resource**.

#### Registration

Interested programs can sign up their institution by completing the form: STARS Interest Form.

- Select your institution/program name for the drop-down menu. If your institution is not listed, please type in the information.
- This form will allow users to register their student director, student co-director and student coordinator.
- For additional faculty access, please email <u>cortexsupport@acr.org</u>
- If your institution is also interested in using <u>Radiology-TEACHES</u>, you can sign up for this using the same form.

To register students, please use the <u>Program & Practice Management</u>.

#### **Accessing STARS**

**Course directors/Instructors/Program coordinator site** to assign exams and get reports: https://cortex.acr.org/STARS

To access, use your ACR login and password. If you have lost these they can be retrieved at: <a href="https://login.acr.org/ForgotPasswordLookup.aspx">https://login.acr.org/ForgotPasswordLookup.aspx</a> . Alternatively, can email <a href="mailto:membership@acr.org">membership@acr.org</a>

Students access the system by using the institutional portal link: <a href="https://cortex.acr.org/msstars">https://cortex.acr.org/msstars</a>

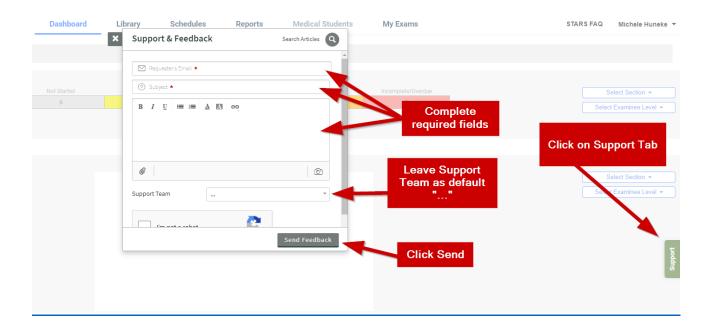
#### Students with special accommodations

Please note that if you need to make adjustments for students with documented special accommodations (such as increased exam duration), please contact cortex (<a href="mailto:cortexsupport@acr.org">cortexsupport@acr.org</a>) with the student name and specific request.

#### Support

Clicking the green 'Support' tab on the right of each page will bring up a form which can be completed and submitted (see screenshot).

- Urgent support can be obtained by calling 703-390-9858 ext 2, 9am-4pm Eastern Time or emailing cortexsupport@acr.org
- For any issues with faculty or student registration, as well as lost username/password, please contact cortexsupport@acr.org
- For any questions regarding individual items in the question database, exams or STARS in general, please contact Mahan Mathur (<u>mahan.mathur@gmail.com</u>) or Judith Gadde (<u>judygadde@gmail.com</u>).

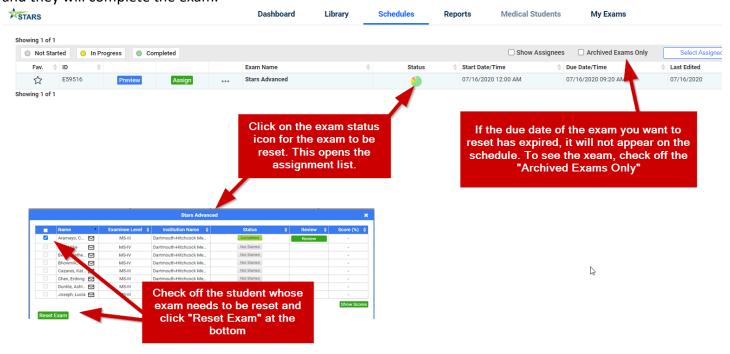


#### Exam duration

- AMSER SE version 1: 113 questions; exam duration is 2hrs.
- AMSER SE version 2: 112 questions; exam duration is 2 hrs
- Practice Exam for AMSER Standardized Exam: 18 questions; exam duration is 1 hr
- AMSER SE anatomy exams (7 exams): (ranges from 12-25 questions): exam duration is 1 hr

#### Incomplete exams and exam resets

Please encourage all students to answer every question. Currently, if not all questions have been answered and the time expired, the exam will remain 'in progress'. If the student has answered the majority of the questions, please contact <a href="majorit@acr.org">cortexsupport@acr.org</a> with the exam number (E#), institution and student name and they will complete the exam.



Instructors/coordinators can reset an exam if needed. Click on the "schedules" tab.

Similarly, if an exam needs to be completely deleted (wiped out of system), e.g. If a student only answered a handful of questions before being interrupted, you can do it via the scheduling page (see later).

### Checking student registrations

For any issues with student registration, as well as lost student username/passwords, please contact <a href="mailto:cortexsupport@acr.org">cortexsupport@acr.org</a>

#### How-to videos

We are in the process of developing orientations videos of each section that provide more detail. The short orientation videos below are from the RadExam software used for radiology resident assessment. The STARS and RadExam user interface are essentially identical (except for the color scheme and few other minor details), and therefore are applicable as a general orientation to the STARS software.

- 1. <u>Dashboard Page (3 mins)</u>
- 2. <u>Library Page (6 mins)</u>
- 3. Scheduling exams (2 mins)
- 4. Schedules Page (5.5 mins)
- 5. Reports Page (10 mins)
- 6. Resident Portal (5 mins)

### Agreements with STARS

When Faculty and Program Coordinators first sign into RadExam they will be asked to accept the following honor code and user agreement. This will only appear the first time they enter the STARS interface. If you are not willing to agree to this, please contact Mahan Mathur at <a href="mahan.mathur@gmail.com">mahan.mathur@gmail.com</a> or Judith Gadde at <a href="mail.com">judygadde@gmail.com</a>.

#### **Honor code:**

STARS has been developed as a non-proctored assessment resource and should be given under an honor code. By clicking below, you agree that you will not download, photograph or convey the exam content in any form other than via the STARS interface to your medical students or others. You also agree that if your medical students break this honor code then your program will treat this as a breach of professionalism standards, notify the STARS creators, and manage according to your local medical student program protocols.

Data from STARS may be used for research purposes and for improving question and exam item quality and performance. All such data will be anonymized as to medical students name and medical student program name but grouped data (e.g. by program size or geography) may be used. No identifiable program data will be distributed to other programs or individuals unless specific written consent is given by both parties.

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American College of Radiology (ACR) offers various educational initiatives to train radiologists, including radiology residents and medical students, in imaging. These include RadExam®; Radiology-TEACHES® and the Standardized Tool for Assessing Radiology Students (STARS).

Any individual who uses these initiatives agrees to abide by the following conditions:

All responses that I provide to questions from RadExam; Radiology-TEACHES and STARS will reflect my own work and not that of any other individual.

I will not download, photograph or convey the RadExam or STARS content in any form to anyone else except to exam officials.

I will not share my exam or Radiology-TEACHES login credentials with anyone else.

I acknowledge that if I violate these standards, my residency program or medical school may regard this as a significant professionalism issue and treat this as a breach of professional standards.

Accordingly, I acknowledge that my program or school may notify the Association of Program Directors in Radiology (APDR), the Association of University Radiologists (AUR); the Alliance of Medical Student Educators in Radiology (AMSER), and/or ACR; and address this matter under its resident and student regulations.

I also acknowledge that I would be ineligible to take the RadExam or STARS for a period that APDR; AUR; AMSER and/or ACR officials would determine.

When students start an exam, they will be required to agree to the following honor code and user agreement. This will appear <u>every time</u> a student takes an exam.

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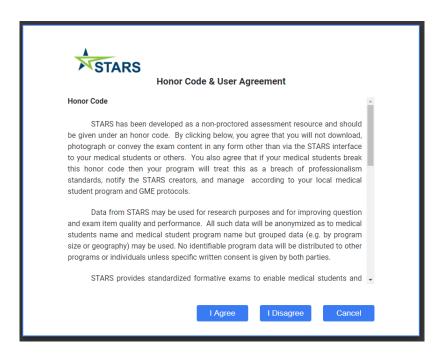
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I also acknowledge that I would be ineligible to take the RadExam or STARS for a period that APDR; AUR; AMSER and/or ACR officials would determine.



### Exam content currently available to all users

\* Exams previously constructed by instructors will be available at their own institutions only.

Section	Exams	Comments
General	AMSER Standardized Exam version	Covers all aspects of
	1	radiology
General	AMSER Standardized Exam version	Covers all aspects of
	2	radiology

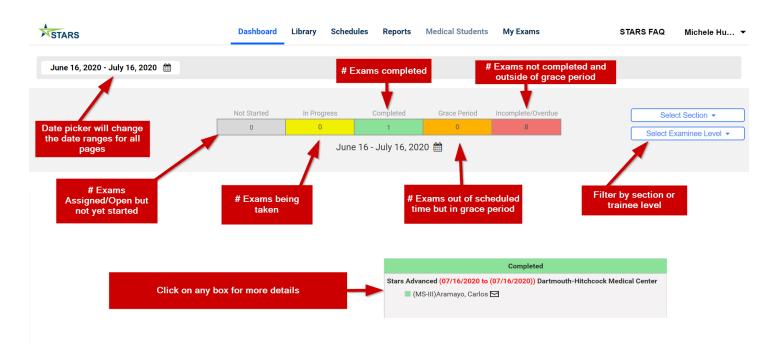
General	Practice Exam for AMSER Standardized Exam	Covers all aspects of radiology (can be used to orient students to the software)
Neuroimaging	AMSER Anatomy Head and Neck	Anatomy exam
Neuroimaging	AMSER Anatomy intracranial, spinal cord, spine	Anatomy exam
Musculoskeletal	AMSER Anatomy - Upper Extremity	Anatomy exam
Musculoskeletal	AMSER Anatomy - Lower Extremity	Anatomy exam
Musculoskeletal	AMSER Anatomy-Pelvis	Anatomy exam
Body	AMSER Anatomy exam: Abdomen	Anatomy exam
Chest	AMSER Anatomy-Chest	Anatomy exam
Women's imaging	Women's imaging exam	Mammo, OB-GYN, Female GU
Neuroimaging	Neuroradiology Exam	General neuroradiology
IR	Angio/IR elective	IR exams
Chest	Chest imaging exam	General thoracic radiology
Pediatric	Pediatric Radiology	General pediatric
radiology		radiology
Musculoskeletal	MSK Exam	General MSK radiology
General	AMSER MS III (w peds and Ob/Gy); versions A,B,C and D	Covers all aspects of radiology
General	CORE exam 2014	Covers all aspects of radiology

## Navigating the STARS interface

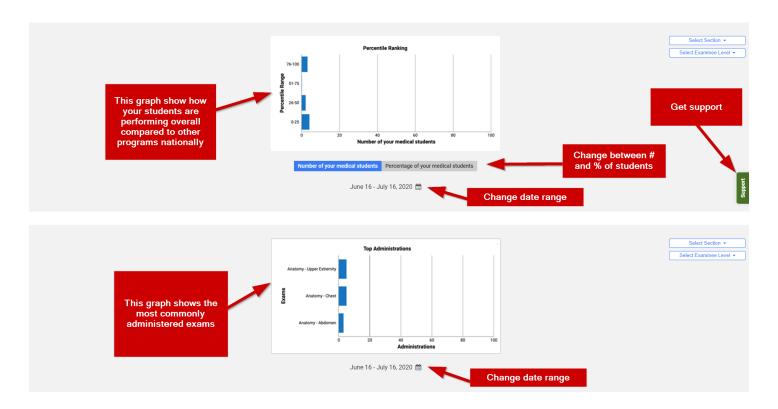
STARS has 6 tabs on the top, select each to move to that section.



### The Dashboard Page - Top



### The Dashboard Page - Bottom



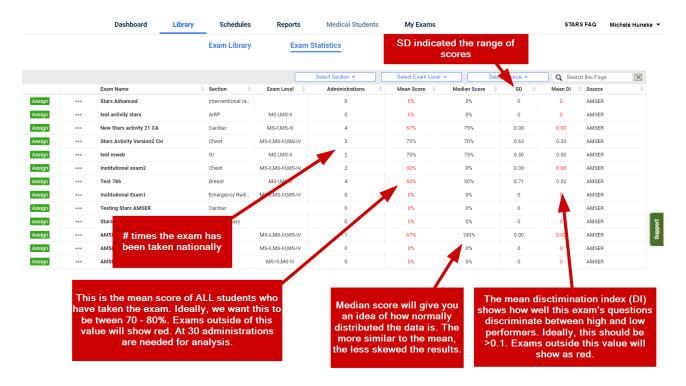
#### Exam details mode

Selecting exam Library in the top left menu will bring up details of the available exams. AMSER standardized exams will be available to all users. Any institution specific exams will be founder under the <a href="My exams">My exams</a>. These can be imported to your library (see <a href="my exams section">my exams section</a>).



#### **Exam statistics mode**

Clicking on "Exam Statistics" in the top left of the Library page will bring up more detailed statistics of the exams (when available).

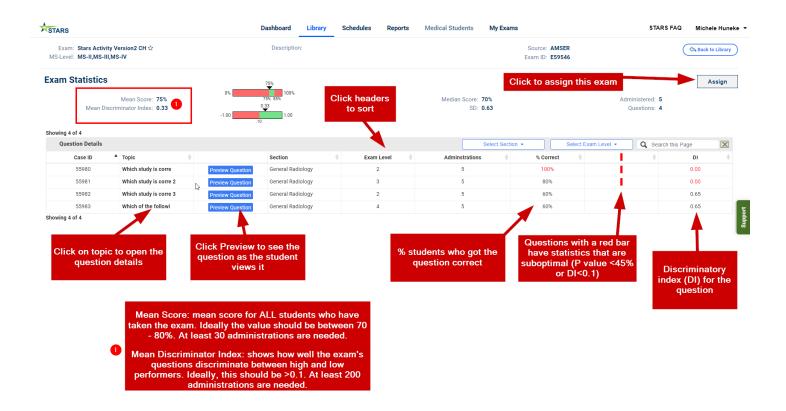


#### **Exam details**

Accessed by clicking the "..." for that particular exam on the Library page. Then click "Question Details".

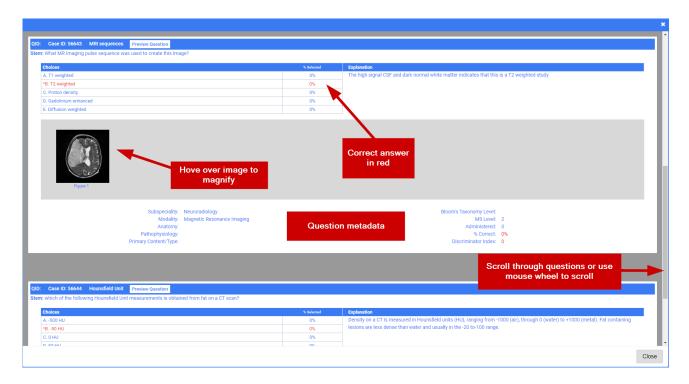


Exam details screen will open.



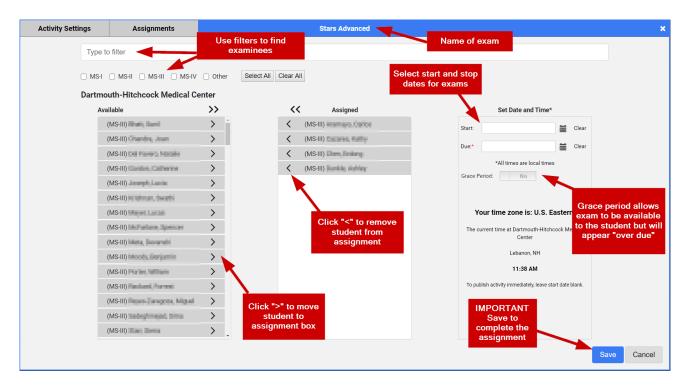
#### **Question details**

Accessed by clicking on a question on the Exam Details page

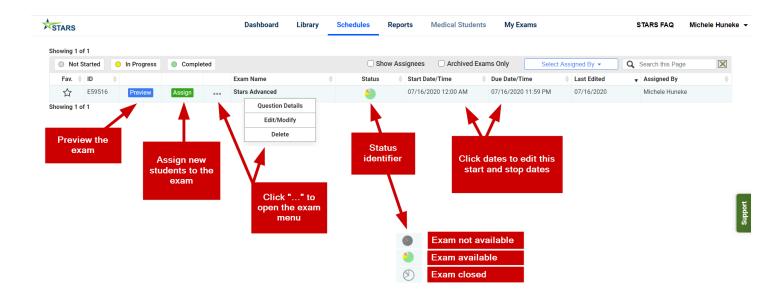


#### The Assign Exam Page

Accessed through Exam Library, then click on "Assign". You can assign exams ahead of time according to the rotation schedule, but we recommend only doing within the current academic year.



### The Schedules Page



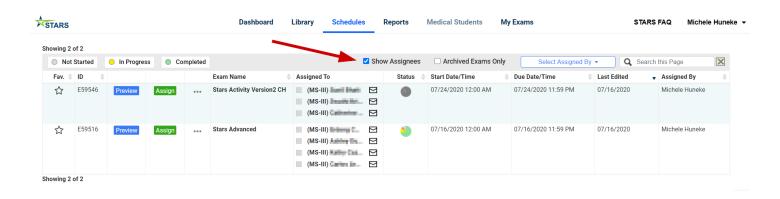
#### **Emails to Students**

- 1. Day the exam starts
- 2. Last day of the exam
- 3. When exam is overdue (they can ask the student coordinator for an extension which you can change on the table above)

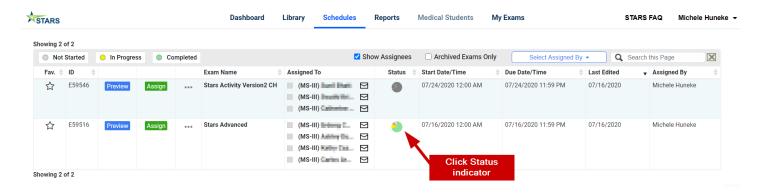
### To see individual student assignments

Click on 'Show Assignees'

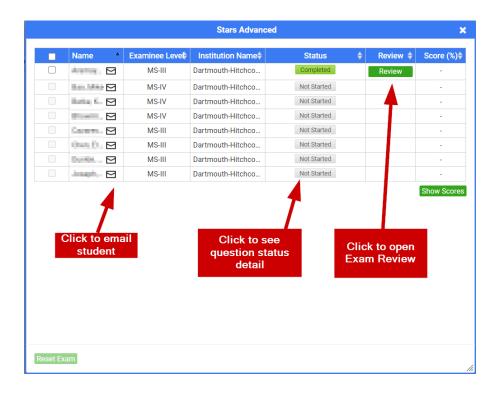
Note that old exams (those that are past the due date/time) can be access by selecting the "Archived Exams Only" option on the screenshot below.



### To see student results of completed exams

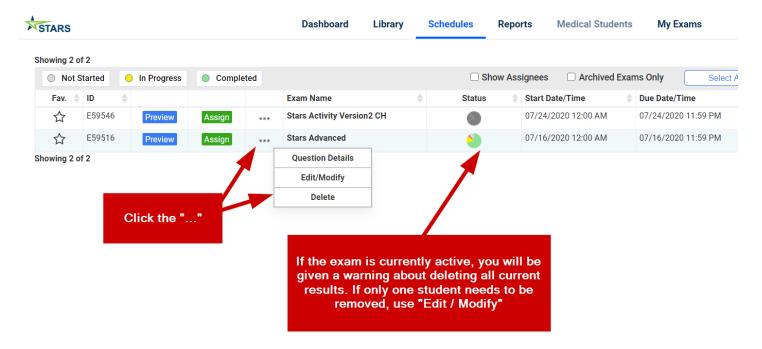


#### Click the Status indicator to open the assignment details



### Removing and editing schedules

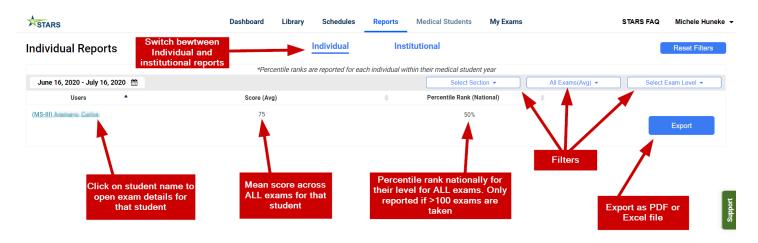
Schedules can be edited (dates, times, students) by clicking on the start or due date on the schedules table. Exams can be deleted by clicking on the "..." then "Delete". If the exam is currently active, you will be given a warning as you may erase all examinee data for that schedule.



#### The Reports Page

Note that this can take a few seconds to load as it has to process the data

### **Individual reports**

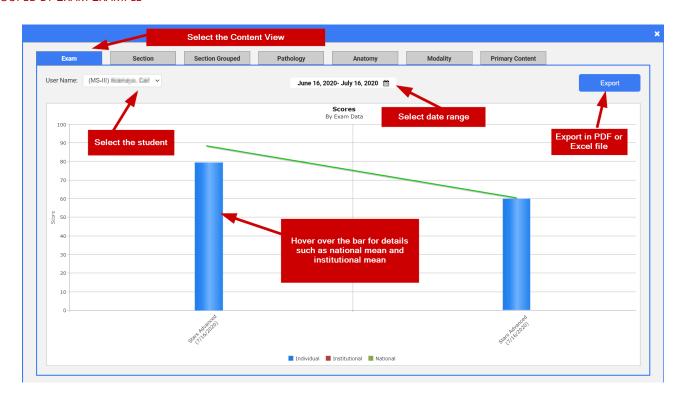


#### INDIVIDUAL DETAIL REPORT

Accessed by clicking on Reports → Individual → Student's name

Data can be looked at in different views by selecting the top right button. Please note all the views will generate data points (this is dependent on what data was entered at the time of the question creation). Several different views are provided.

#### **GROUPED BY EXAM EXAMPLE**



Other options are selected by the tabs along the top menu:

Section: data is grouped by the exam section

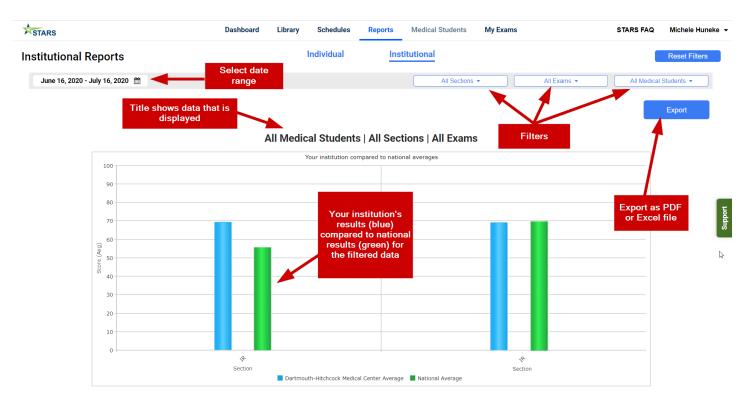
Section Grouped: data is group by section sequentially by date

Pathology: data grouped by pathology Anatomy: data grouped by anatomy Modality: data grouped by modality

Primary Content: data group by primary content type

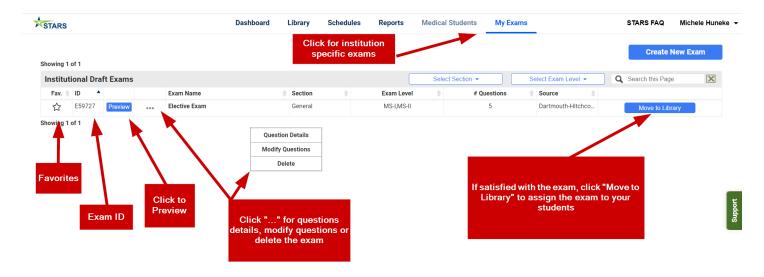
### **Institutional reports**

Accessed by Report → Institution



#### My Exams

Click on the "My exams" section to view all of your exams that have been imported from REW or created by your institution.

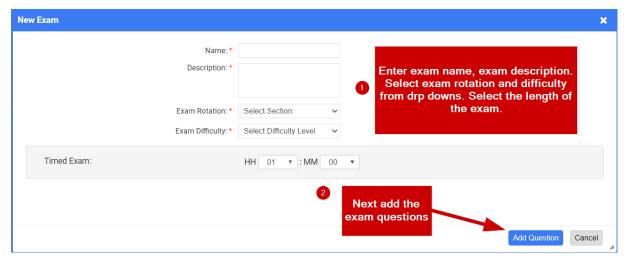


#### Create a new exam

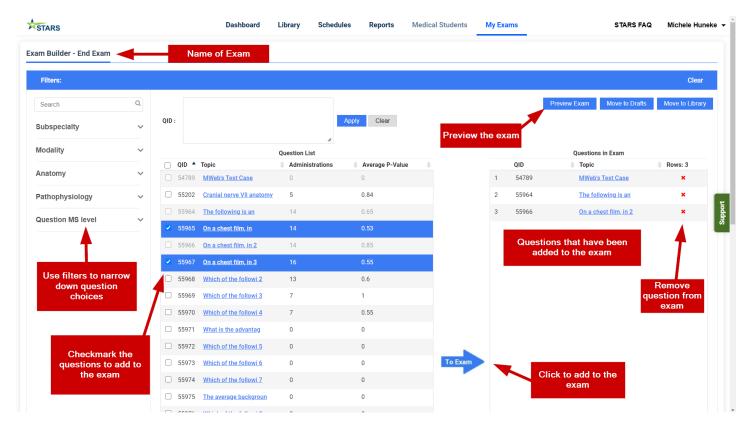
To create a new exam, click "Create New Exam".



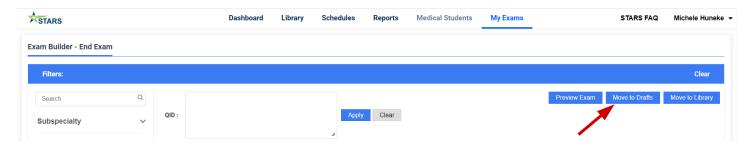
Complete the following steps to define the exam:



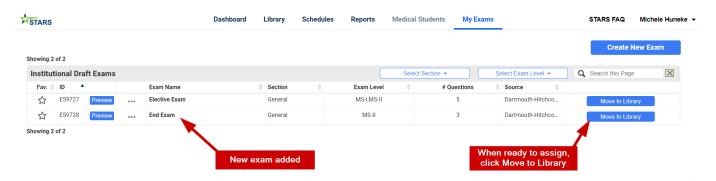
#### Add the questions to the exam:

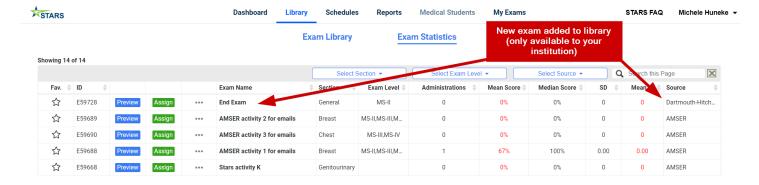


When the exam is ready, click the Move to Drafts button:



We are currently working on an option to filter by the AMSER standardized exams (in the instance where you would like to create a new exam from specific questions in these exams). If you would like a specific exam (either AMSER or from another institution) imported into your library of exams, please contact <a href="mailto:cortexsupport@acr.org">cortexsupport@acr.org</a> with the name of the exam and exam ID.





Click on "Assign" to assign the exam to your student. Please note that newly created exams which are available only to your institution will not have national data with which to compare your students with.

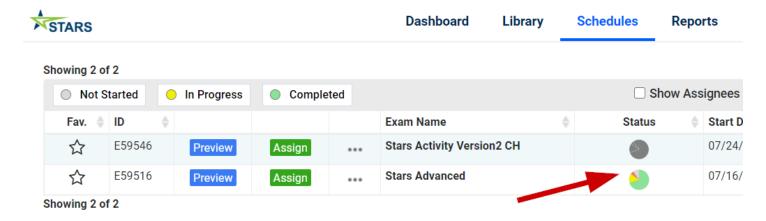
#### Reviewing student exams

Student exams can only be reviewed via a faculty login and should not be unsupervised for security reasons.

The interface can be accessed from 2 places:

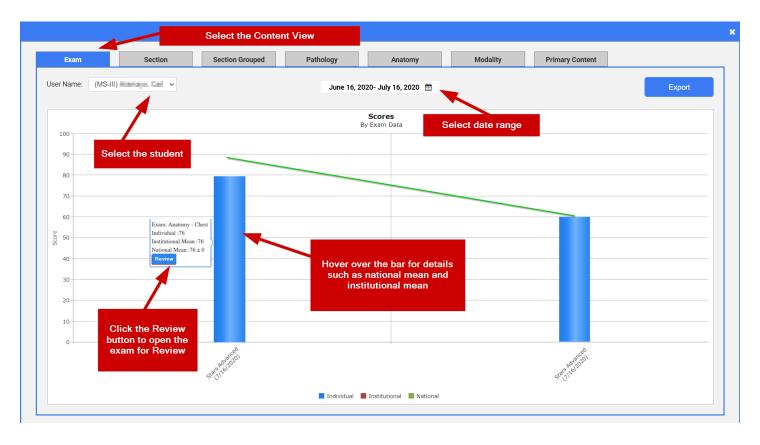
#### #1 The schedules page

Click the status indicator to open the student list for that exam and click the Review button.

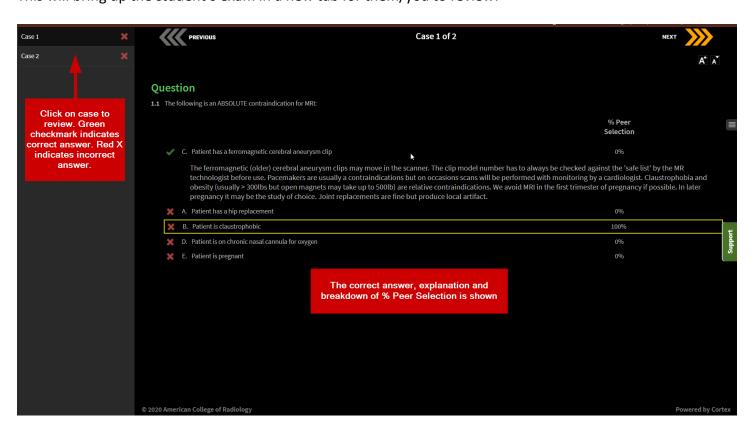




#2 The individual reports pages (Exam or Section Grouped). To review the exam, click on the result bar (blue) then "Review".



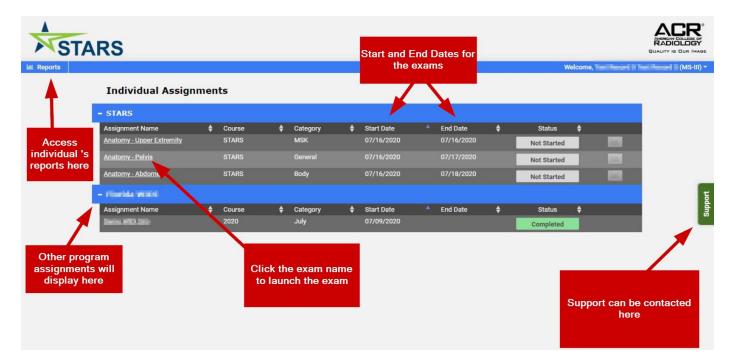
This will bring up the student's exam in a new tab for them/you to review.



#### Institutional Portal Interface

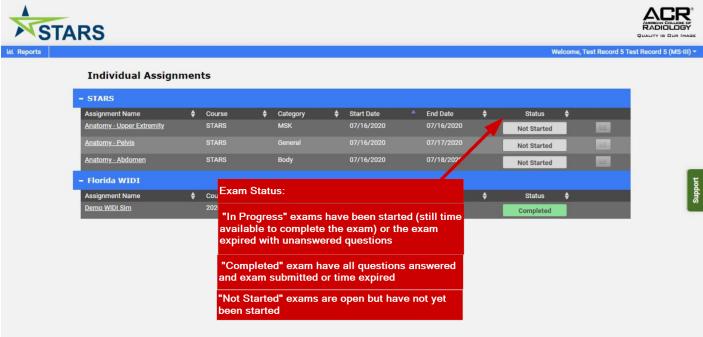
The institutional portal is where students will take exams. Link: <a href="https://cortex.acr.org/msstars">https://cortex.acr.org/msstars</a>

Login is via the same ACR login and Password (retrieve at: <a href="https://login.acr.org/ForgotPasswordLookup.aspx">https://login.acr.org/ForgotPasswordLookup.aspx</a> or email: <a href="mailto:cortexsupport@acr.org">cortexsupport@acr.org</a>)



#### Status levels

Currently 'In progress" can mean that you are still taking the exam (within the time allotted), or that you did not answer all the questions.



#### Trainee Exam interface

#### Honor code

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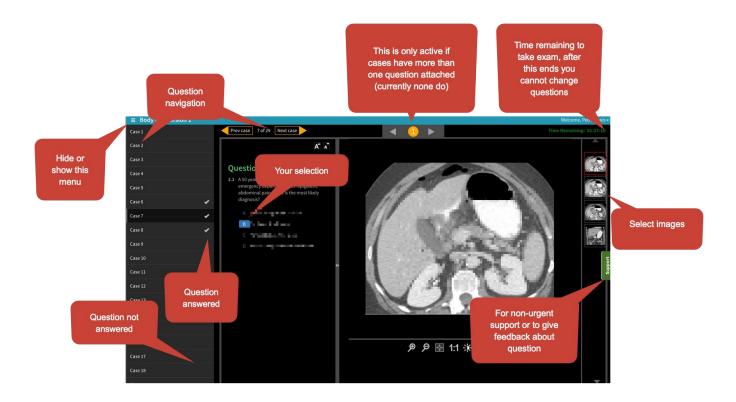
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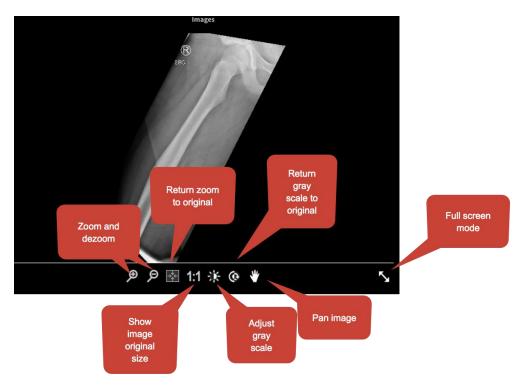
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### **Question interface**

After **ALL** questions have been answered, a **SUBMIT** button will become available. If you do not submit the exam before the time is up, then it will auto submit after the time limit has been reached.



### **Image functions**



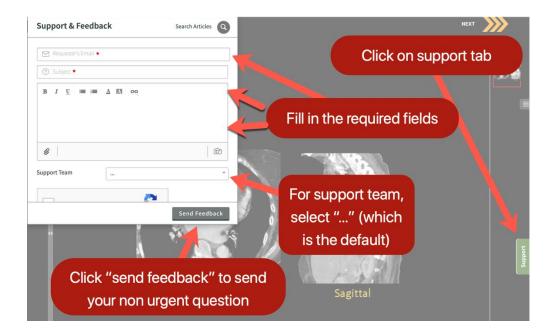
### Student access to their reports

Note this is currently under development.

To review your exam with questions, answers and comparative national data, you will need a faculty to login and be under supervision. Again, honor code applies. Please see your Student Director to see which faculty have access at your institution.

#### Support for students and exam feedback

Accessed by the green tabs. Please tell us the exam you are having an issue with. Urgent support can be obtained by calling 703-390-9858, ext 2, 9am-4pm Eastern Time or emailing <a href="mailto:cortexsupport@acr.org">cortexsupport@acr.org</a>



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Please note that the content for this FAQ has borrowed heavily from the FAQs created by Petra J. Lewis, MBBS for RadExam.