Course Scheduling System (CSS)
User Guide

Enterprise Systems and Services
August 2022
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Accessing the Application

Overview of the System

**The Purpose:**

The purpose of CSS - The Course Scheduling System - is to provide a mechanism for departments to submit updates, additions or deletions via the web for future course offerings.

System Requirements

**Software Requirements**

**Internet Browser:**
Internet Explorer 10 and higher, Mozilla Firefox, Google Chrome, or another browser of the same generation is required. For Macintosh users, IE and Safari are supported.

**Javascript:**
Javascript must be enabled on the browser for convenience features, such as the cursor jumping to the next cell and deleting or copying of a meeting. Javascript is also used in confirmation pop-up boxes during some interactions with IMS. If Javascript is not enabled, all transactions will be submitted to IMS without asking for confirmation.

**Additional Software:**
Some reports are in PDF and Excel format; Microsoft Excel and Adobe Reader are suggested

**Cookies**
Cookies must be enabled for this application to work. The cookie this application writes is memory-based (which means that it disappears when the browser is closed and can’t be read by an outside entity), and does not contain any sensitive data. Every browser allows the user to control which cookies to accept and which to block, though the actual means vary. In general, it should be possible to accept cookies from Rutgers and reject all others if privacy is a concern.

**Screen Printing**
A PDF file can be generated for Section Listing screen. The PDF document is easier to read and takes less paper than the screen printout.

To create a screen shot, press Alt and PrtScrn buttons on your keyboard at the same time, then paste the captured image into any document. Windows desktops also have “Snipping Tool” software which allows to capture arbitrary fragments of the screen.
Application Access

The **Master Course List** used by CSS is available to the public. The searchable list contains course numbers and titles for all courses offered at Rutgers, along with the last year and term in which they were offered. It may be viewed without requesting access and without logging in at [https://sims.rutgers.edu/fco/masterCourseSelection.htm](https://sims.rutgers.edu/fco/masterCourseSelection.htm). For more information, please refer to the Master Course List section of this User Guide.

The rest of the system requires access to be set up.

**Authorization Requirements**

Access to the CSS application may be obtained by filling out a paper copy of the **Administrative Computing Services Access Form**. The **General Access Form** can be downloaded at [https://ess.rutgers.edu/getting-access.html](https://ess.rutgers.edu/getting-access.html).

1. Access to the application will allow you to view (not update) the course information.
   - It is important that you provide your NetId. If you do not have one, please go to [https://netid.rutgers.edu/](https://netid.rutgers.edu/) to create one.
   - Under the heading, Oracle & Web Applications, select Course Scheduling System (CSS).

2. In addition to access to the CSS application, access to update course information may be obtained by filling out the paper copy of the **Course Scheduling System, Course Access Form**

3. If you work for the Scheduling Office and need permission to approve courses, please state so on the **Access Form**, and obtain approval from the Scheduling director or associate director. Your account will be created with an approver role.
**Connecting to Application**
In your browser, type in the following URL: https://sims.rutgers.edu/fco
The Welcome page will appear. Once connected to the site, save it by using the “Favorites” or “Bookmarks” drop down menu located on the top toolbar, within the Internet Browser. This will eliminate the need to retype the URL for subsequent connections.

- Bookmark the URL (optional)
- Click the “EDIT COURSE OFFERINGS” link to continue to the Login Page, or
- Click “VIEW MASTER COURSE LIST” to view the master list of courses, or
- Click the “EDIT COURSE SYNOPSIS LINK” link to proceed to the Course Synopsis application
Log on to Application

CSS employs the university-wide Central Authentication Service (CAS) to authenticate users. CAS account names are commonly known as Net id.

1. Enter your NetId
2. Enter Password (case sensitive)
3. Click the Log In button

- Enter your NetId and password. If you do not have a NetId, go to https://netid.rutgers.edu/ to create one. After you obtain the NetId, please refer to Authorization Requirements section for additional steps
- Click on the Login button to continue to the Course Selection page

Establishing a Session

Logging in establishes a user session until browser window is closed, user logs out, or the session expires. Currently the session is set to expire after two hours of inactivity, meaning that if the user does nothing on CSS for 2 hours after logging in, and then attempts any action, he or she would be asked to re-authenticate (log in again).
The Main Menu

The main menu, a red bar at the top of every application screen, contains the following items:

- **CSS Home** – returns the user to the initial page, described in Connecting to the Application section of this User Guide. This does not log the user out, and therefore clicking Edit Course Offerings would bring the user directly to the Selection Page, bypassing the CAS log in page.

- **Search Course Offerings** – returns the user to the Section Selection screen, filled with most recent search criteria used.

- **Course Level Info** – brings up the screen for looking up and updating detailed course titles, core codes, and other course-level data.

- **Master Course List** – redirects to the Master Course List section.

- **Course Synopsis** – brings up the screen for looking up and updating course synopsis URLs.

- **Help** – displays context-sensitive help for the current screen. If no context-sensitive help is available, brings the user to the beginning of the Help file.


- **Administration** (if authorized) – brings up administration menu, for those authorized to use it. Does not appear if the user is not an administrator.

- **Search** (magnifying glass icon) – initiates Rutgers University search.

- **Log Out** – terminates the current user session. The user will be required to log in again in order to perform any other action.
### Master Course List – Search

This is the Master Course List Search page. Enter the Unit (required) and Subject/Course/Supplement (optional) for the course or group of courses you would like to retrieve. Choose a semester from a dropdown box to see course status as of that semester. Select the Sort Option according to your preferences.

- **Sort Option** – the order in which the selected courses will be displayed – Subject/Course is the default.

Click on the Search MCL button to continue to the Master Course List page.
Master Course List – Selection

This is a snippet of the **Master Course List** page. The courses listed on this page are a result of the selection and sort information entered on the previous page.

By default, **Master Course List** displays only courses that are available for scheduling in the selected term. To include dropped courses, you may switch to the Course History view:

### Mathematics (640)

<table>
<thead>
<tr>
<th>Available to Schedule?</th>
<th>Unit</th>
<th>Subj</th>
<th>Crse</th>
<th>Sup</th>
<th>Course Title</th>
<th>Full Title</th>
<th>Crd Prc</th>
<th>Crd</th>
<th>Online Cd</th>
<th>Core Cd</th>
<th>Last Off. Term/Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>007</td>
<td></td>
<td>BASIC ALGEBRA</td>
<td>N 030</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>033</td>
<td></td>
<td>MATH LIB ARTS INTENS</td>
<td>MATH FOR LIBERAL ARTS INTENSIVE</td>
<td>N 030</td>
<td>Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>035</td>
<td>91</td>
<td>MATH DEVELOPMENT</td>
<td>E 020</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>036</td>
<td></td>
<td>ELEMENTS OF ALGEBRA</td>
<td>N 025</td>
<td>Summer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>037</td>
<td></td>
<td>STUDY SKILLS MATH DIV</td>
<td>N 020</td>
<td>Spring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>038</td>
<td></td>
<td>INTER ALGEBRA INT</td>
<td>INTERMEDIATE ALGEBRA INTENSIVE</td>
<td>N 030</td>
<td>Spring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>079</td>
<td></td>
<td>MATH 107 109 BRIDGE</td>
<td>COLLEGE ALGEBRA BRIDGING COURSE - 107 TO109</td>
<td>N 010</td>
<td>Spring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>089</td>
<td></td>
<td>MATH 108 109 BRIDGE</td>
<td>COLLEGE ALGEBRA BRIDGING COURSE - 108 TO109</td>
<td>N 000</td>
<td>Spring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>21</td>
<td>640</td>
<td>101</td>
<td></td>
<td>COMPUTATION BALGEBRA</td>
<td>N 060</td>
<td>Spring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To schedule a section from a course from the Master Course list for the semester specified during search, click the “Select” button located next to the course you would like to add. When the Select Course button is clicked, control will be passed back to the Section Detail page (see Section Detail). The following fields will be filled in:

- unit
- subject
- course
- supplement
- title
- credits
- credit prefix

**Note:** The Select button will only be displayed if you are logged in, and only next to the courses that are available for scheduling and that you are authorized to update. See **Authorization Requirements**.
Entering and Viewing Course Data

Course Selection and Sorting

This is the **Selection** page. Select the term from the dropdown box, and enter the index number of a specific section or a combination of Unit/Subject/Course/Section/Supplement codes for the course or group of courses you would like to retrieve. You may also search for sections by a combination of the term and activation, change, review and approved flags.

**Note:** Large results sets may take a long time to retrieved; in addition, the size of result set is limited. For faster performance and more meaningful results, use more specific criteria – enter as much data as you know. If you need a report on a large data set (for example, all changed sections for a term during active editing by departments), you may request it from one of the administrators.

Select the appropriate term and year from the Term/Year drop down box. Select the Sort Option, Activation Status, Review Status, and Change Status according to your preferences.

- **Sort Option** – the order in which the selected courses will be displayed – Subj/Course/Sect is the default. Other options are Instructor, Summer Session Dates, Day/Period, and Course Title. Please note:
  - Instructor will sort on the first Instructor listed
  - Summer Session Dates is valid only when a Summer term is selected
  - Day/Period will sort on the day/period of the first meeting
- **Activation Status** - select active, inactive or all (default) sections of the selected courses
- **Review Status** – select sections that have already been reviewed by Departments, not reviewed by Departments or all sections (default option). Reviewed sections are denoted by ✔**Reviewed** on the Course Listing page
- **Changed Status** – select all sections, sections with changes, or sections without changes.
  - Please note: This is different from searching by Reviewed flag, since sections may be marked reviewed without having been changed
- **Notes** – select all sections, or sections with notes left by department users and/or approvers
- **Approval Status** (approver and admin only) – select sections that have been marked as approved (or not approved) by Approvers, or all sections (default option). Approved sections are denoted by ✔**Approved** on the Course Listing page. This search option is available only to approvers
- Reviewed for FYS (approver and admin only) – search based on the flag indicating whether a course has been reviewed for first-year sectioning
- Included in FYS (approver and admin only) – search based on the flag indicating whether a course is available for first-year sectioning

Click on the Search button to continue to the **Course Listing** page

### Course Listing

This is the **Course Listing** page. The courses listed on this page are a result of the selection and sort information entered on the previous page.

*Note*: The Edit, Add Section and Active/Deactivate buttons will only be displayed for course subjects that you have been authorized to edit. **Refresh** button will be displayed only if you are an approver or admin, and only for sections you have been authorized to edit

**IMPORTANT NOTE**: This page compares a snapshot of IMS data that is loaded into CSS in the beginning of each semester to the data entered or modified by Departments. **This screen does not reflect changes that could have been made to IMS outside of CSS**. In order to see those changes, an approver must either view Section Detail or use Refresh button to load latest changes into CSS. Department users are always presented with the snapshot of IMS, even on the Section Detail screen, until the snapshot is updated by approvers.

This page allows you a number of options:

1. Clicking on **Add a Course from Master Course List** will transfer you to the **Master Course List - Search** page. It is there that you can search for a course that is not scheduled to be offered this year/term and request it to be added. For instructions on adding a course, see the section on **Master Course List**.
2. Clicking on **PDF Version** will display the same result set in the PDF format for printing. For large result sets, the document will be broken into parts, with no more than a thousand sections in each part.

3. Clicking on **Excel Version** will allow the user to download the same result set in Excel format. The Excel file contains only a subset of fields displayed on the screen and displays each time a section meets as a separate row. It is primarily useful in determining the schedules of instructors.

4. Clicking on the **Edit** button will transfer you to the **Section Detail** page. It is here that you will be able to update course information pertaining to the selected section and mark it reviewed. For instructions on editing section information, see the instruction listed under the heading **Course Detail**.

5. Clicking on the **Add Section** button will transfer you to the **Section Detail** page. It is here that you can add a new section to the Course Scheduling System. The following information will be copied from the selected section and transferred to the **Section Detail** page:

   - unit
   - subject
   - course
   - title
   - prefix
   - exam code
   - special permission to add/drop
   - open to major
   - open to class
   - prerequisite
   - co-requisite
   - class restrictions

For more instructions on adding a new section, see **Section Detail**.

6. This button will be labeled Activate or Deactivate depending on the listed section’s status. When the listed section is active the button will read **Deactivate**. When the button is clicked, the status will change to inactive and all meeting times will be removed. When the listed section is inactive the button will read **Activate**. Clicking the button will change the status to active and take the user to Section Detail screen, where meeting information must be entered and the section saved to make the status change final, because an active section is required to have either meetings or a contact time. Both activating and deactivating will mark the section reviewed.

7. The **Refresh** button (available only to approvers) loads a fresh copy of the selected section from IMS into CSS. Essentially, this is the reverse of the action of the **Approve All** button on the Section Detail Screen. This is useful when IMS has been changed without being synchronized with CSS. **IMPORTANT NOTE:** refreshing from IMS will overwrite any changes made in CSS, including those requested by department users. Only press this button if it is all right to discard the current state of section!

8. To return to the **Course Selection and Sorting** page, click on the **Search Again** link or the **SEARCH** button in the main menu.

**Marking All Course Sections Reviewed**

There may be times when no changes are required to any of the sections of the listed course. To submit all sections without changes, click on the submit button. This will mark all listed sections as reviewed.
Note: For this option to be available, the selection from the Course Selection and Sorting page must have been UNIT/SUBJECT/COURSE.
Listing Page after Section Information Has Been Updated

When viewing the Course - Listing page after updates have been made to the section, all information that has been modified will be bolded, underlined and highlighted in yellow. Notes entered by departments or approvers will be displayed, underlined and highlighted, and the screen will also indicate if there is an enhanced classroom request for a section.

✔ Reviewed indicates that the section has been reviewed by the appropriate Department. Modifications can still be made to all reviewed sections until the Departmental time period closes.

✔ Approved indicates that the section has been approved by the scheduling office. Modifications can still be made to all approved sections until the approval time period closes.

Section Detail Page – Academic Departments

Page Overview

The Section Detail page is the main page used by academic departments to view detailed section information and request changes. The data is initially created by ‘rolling over’ all courses from the same term of the prior year (for example, to begin work on Spring semester 2020, Spring 2019 data is copied). With the introduction of third-party scheduling software, rollover data may be edited outside of CSS and then loaded back into the system. If no changes were made to this data, the classes would be scheduled exactly as they were in the previous semester. This data is therefore known as the scheduled course data.

Any changes entered by academic departments on the Section Detail page are requests for modifications to the University Schedule of Classes. All requested changes are stored by CSS and later reviewed and approved by the Campus Scheduling Officers. The process of approval copies the data to the main IMS system from which the final Course Schedule is created.

This page can be accessed in three different ways. The first way is by clicking the Edit button on the Course Listing page. The second way is by clicking the Add Section button also on the Course Listing page. The third way is by clicking the Select Course button on the Master Course List page.
The following information and controls are available on this page (please refer to screen shots under Department or Approver headings further in this section).

1. Scheduled course data, - this data is loaded from the IMS (the scheduling system that serves as the source of data for registration and the student-facing schedule of classes). It shows the section as it is currently scheduled
2. Updatable Fields - used to request changes to the scheduled course data
3. Delete Time/Building/Room/Campus (🗑️) – when available, used to delete meeting information (Javascript must be enabled; to delete a meeting without Javascript, delete the values in all of the fields and return dropdown boxes to defaults).
4. Copy Time/Building/Room/Campus ([C]) – when available, used to insert another meeting, exactly like the one above it; the data can later be edited (Javascript must be enabled; to copy a meeting without Javascript, manually retype all information)
5. Request a scheduling pattern – when requesting specific meeting times is not enabled, departments may request that section is scheduled in accordance with one of the established patterns
6. Request Enhanced Classroom button – when clicked will transfer you to the Enhanced Classroom Request page.
7. Memo Text box – used for prerequisite and co-requisite additions/changes and for any other special instructions
8. Save button – When clicked will save all modifications, mark section as reviewed, and return to Course Listing page
9. Back to Listing button – Returns the user to the Course Listing page and scrolls to the section that was being edited. All unsaved changes are discarded
### How to Use This Page

**Scheduled Course Data**

<table>
<thead>
<tr>
<th>Index</th>
<th>Class</th>
<th>Section</th>
<th>Location</th>
<th>Instructor Name</th>
<th>Section Code</th>
<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Status</th>
<th>Time</th>
<th>Days</th>
<th>Building</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Nguyen, John</td>
<td>12345</td>
<td>ABC123</td>
<td>3.0</td>
<td>U</td>
<td>Open</td>
<td>M-Th</td>
<td>8-10</td>
<td>DORM</td>
<td>123</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Smith, Emily</td>
<td>5678</td>
<td>DEF456</td>
<td>2.5</td>
<td>T</td>
<td>Open</td>
<td>M-Th</td>
<td>9-10</td>
<td>DES</td>
<td>456</td>
</tr>
</tbody>
</table>

**Updatable Values**

- Select a pattern...
- Select a pattern...
- Select a pattern...
- Select a pattern...
- Select a pattern...

**Delete or copy pattern request**

**Request Enhanced Classroom**

**Memo Text**

- Open to all...
- Please select...
- Please select...
- Please select...

**Save or Return to Listing**

scheduled course data

Scheduled Course Data

<table>
<thead>
<tr>
<th>Course Information</th>
<th>dept.</th>
<th>Section</th>
<th>Type</th>
<th>Status</th>
<th>Time</th>
<th>Days</th>
<th>Building</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>dept.</td>
<td></td>
<td></td>
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<td>Section</td>
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<td></td>
</tr>
</tbody>
</table>

Course Scheduling System - Section Detail

[Diagram of course scheduling system interface]

TABS:

- Course Data
- Class Data
- Section Data
- Instructor Data
- Request Enhanced Classroom
- Updatable Values
- Delete or copy pattern request

**Memo Text**

Scheduled Course Data

<table>
<thead>
<tr>
<th>Course Information</th>
<th>dept.</th>
<th>Section</th>
<th>Type</th>
<th>Status</th>
<th>Time</th>
<th>Days</th>
<th>Building</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>dept.</td>
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</tr>
<tr>
<td>Section</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Requesting Changes

It is important to review the scheduled course data. When modifications are needed, enter the changes in the appropriate text box or select an entry from the drop down box. When submitted, these changes will be saved separately from the scheduled values. The Schedule of Classes will not be modified at this time.

All required fields are marked with a red *. Validations are done on these fields. If the data is missing, an error message will be displayed stating the missing fields.

To delete a meeting or a pattern request, click on the button located at the end of the row you would like to delete. You may also delete all entries in the row to achieve the same result.

To create another meeting or pattern request, you can click on the button located at the end of the row, and it will insert a copy of the current row below it. You can then make necessary changes to the new pattern request data.

The following validations are done on each requested meeting. If a validation error occurs, an appropriate error message will be displayed.

- Either a period selection or a start and end time are required for each meeting. Setting a period loads the literal time for that period into the boxes for start and end time automatically
  - Note: Period definitions vary by campus and, in some cases, by day of the week. Changing campus and day of the week will update start and end times accordingly, as long as the selected period code is valid for the new campus and day. If the selected period code is not valid for the campus and day selection, the system will remove period code and keep the time
- Either campus code or building is required for each meeting
- Mode is required for each meeting time and BA (by arrangement) courses

The building code may be typed directly into the box or selected from the dropdown box which appears once the user starts typing into the building code box. This feature allows, if necessary, to enter building codes which are not in the list of available buildings. Changing the campus selection will clear out the building and room selection, as well as literal times for the meeting if the period is set.

If you require an enhanced classroom, click on the button. For instruction on how to fill out the request, see Request Enhanced Classroom.
Block Scheduling Rules (Currently Not Enabled)
Some schools and locations have special rules according to which periods are combined in blocks. When such rules are available for the selected sections, CSS will offer an option to schedule all meetings at the same time.

To use a scheduling block, use the type of the block, based on the number of credits and number of weeks for the course, then select the days for meeting and times.

The meetings will be created automatically with default mode codes and no room assignments. The user may change mode codes and select rooms or switch to the usual mode by clicking on “Enter Meeting Data Manually” tab.

CSS support team can define new block scheduling rules based on requirements provided by the Scheduling Office.
Scheduling Pattern Requests

Scheduling pattern requests replace meeting change requests for Fall and Spring semesters.

The following fields are included in a pattern request:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode/Component</td>
<td>Mode of instruction</td>
</tr>
<tr>
<td>Pattern</td>
<td>Requested pattern, from the list of patterns available for the offering unit’s campus</td>
</tr>
<tr>
<td>Room Type</td>
<td>Type of the room needed for the requested component (required for meetings, prevented for BA)</td>
</tr>
<tr>
<td>BA</td>
<td>By arrangement indicator (should be set to “Y” if the pattern request is for a meeting that will not reserve an on-campus room)</td>
</tr>
<tr>
<td>Campus</td>
<td>Campus for the requested component (required for meetings, optional for BA)</td>
</tr>
<tr>
<td>Pavilion</td>
<td>Pavilion request for the requested component (required for meetings, prevented for BA)</td>
</tr>
<tr>
<td>Room</td>
<td>Room request for the requested component (required for meetings with room type = “Restricted Room”, prevented for all other meetings and BA)</td>
</tr>
<tr>
<td>Comment</td>
<td>An optional message from the requester to the scheduling officer</td>
</tr>
</tbody>
</table>

There can be a maximum of five pattern requests per section, with no more than one pattern request per component type. Campus, pavilion, and room type are required for all pattern requests that are not “by arrangement.”
A Note Regarding Lead Sections
Sometimes several sections of the same course meet for lectures together. In this situation, the lecture room assignment is associated with only one of those sections, called the lead section. Other sections are linked to the lead section. The CSS system will not allow you to change a room assignment for a lecture on a linked section. You can only change the lecture room assignment for the lead section, and then the system will automatically update all sections linked to it.

You can distinguish between lead and linked sections as follows:
- If the Lead Section field (located immediately under the room assignments) is blank, then the section is neither lead nor linked. You can change any room assignments for this section.
- If the Lead Section field contains this section’s section number, then this is a lead section. You can change any room assignment for this section, and its lectures (meetings with Mode code 02) will be copied to all linked sections, replacing any lectures they originally had.
- If the Lead Section field contains a number different from this section’s number, this is a linked section. You may change only those room assignments that are not lectures.

Linking and Unlinking
If you want a new section to meet together with an existing lead section, put the lead section’s number in the linked section’s Lead Section field and save. The lecture meetings from the lead section will be automatically copied to the linked section.

You may unlink the lead section by making the Lead Section field blank. Doing this would cause the system to choose a new lead section out of the sections linked to the current section. It will be the section with the lowest section number (for example, if section 20, which is a lead section for sections 21, 22, and 23, is unlinked, the new lead section will be 21). To completely sever any links between sections, you have to repeat this process until there are no linked sections left.

If you no longer want a particular linked section to meet together with its lead section, you can unlink it by making Lead Section field blank. Please keep in mind that the two sections will then be independent, but still meeting in the same room. To avoid conflict, it is advisable to specify a new lecture room assignment for the unlinked section at the time of unlinking.

Note: Deactivating a lead section will cause it to also to be unlinked. A new lead section will be chosen among the sections linked to it and it will become the lead section.

Cross-Listed Sections
A cross-listing is a group of sections from different courses that meet together as one course. In this situation, instructor assignments and room assignments are associated with only one of those sections, called the primary cross-listed section. Other sections in the group are called secondary. Cross-listed sections may also be taught by the same instructor and meet at the same time but at different locations (multicasts). The specific mode of sharing instructor and room assignment is determined by the cross-listing type field.

The CSS system will not allow you to change any shared assignments on a secondary section. You may change shared room assignments and instructor assignments only on the primary cross-listed section, and then the system will automatically update all sections linked to it. CSS will also update the entire group if a section number changes.

To create a new cross-listing, begin by creating the sections of each course. Then, start with the section that is going to be primary and, in the “Cross-Listed Sections” area, add all the sections that are supposed to be cross-listed with it. The system will automatically update all other sections.

When you cancel a secondary cross-listed section, the primary section will automatically be updated to remove the cross-listing. The primary section will retain control of the shared room.
The system will not allow you to cancel the primary section, so in order to cancel the entire cross-listed course, you will have to cancel all the secondary cross-listings first.

To make formerly cross-listed sections independent, start with any secondary section and remove all its cross-listings from the “Cross-listed sections” area of the screen. You may then change meeting times, if you wish, and enter a new room if you have one available. If you do not create an independent room assignment, the Scheduling office will try to find a new room for your section.

**Requesting Changes to Prerequisites or Co-requisites**

A Memo text box is available to enter any additions or corrections to Prerequisites and Co-Prerequisites. This box should also be used to enter any special instructions you have for the Scheduling Office. The text box is limited to 2000 characters.

**Saving or Discarding the Changes**

When all modifications have been made, click the **Save** button to save the data and mark the section reviewed. Control will be passed back to the **Course Listing** page, and the page will scroll to the section you have just finished editing.

**Note:** if the updated section no longer meets the listing’s search criteria, it will now longer be on the screen (for instance, if you have searched for inactive sections and then activated one of them, it will “disappear” from the listing)

If you do not wish to save the changes, press the **Back to Listing** button, to return to the same place in the listing that you left off from. This will discard all the changes since the last save.

**ServiceNow Integration (For NB departmental users only)**

When a NB departmental user presses a button to Edit, Add Section, Deactivate, or Activate a section, a ServiceNow ticket is created to log the review and approval process for changes made to the section. Only one ServiceNow ticket can be opened for a section at a time. If there is an existing ServiceNow ticket, the Section Detail view has no Save button, while pressing the Activate or Deactivate button will result in an error saying that there is an existing ServiceNow ticket. The state of the ServiceNow ticket is updated every time the Section Detail page is loaded. You can make another change after the opened ServiceNow ticket is closed/completed for the section.

In the Section Detail page, changes made to the following fields will create a ServiceNow ticket:

- Exam Cd, Stop Point, Final Stop Pt, Status Cd, Print, Sess Print, Spec Perm Add, Spec Perm Drop,
- **Course Description**: Subtitle, Type, LMS,
- **Pattern Request**: Mode/Component, Pattern, BA, Room Type, Campus/Pavilion/Room, Comment
- **Requested Time/Building/Room/Campus**: Campus, BA, Day/Period/Time, Bldg-Room, Budget cd(off-campus only), Mode/Component, Weeks, Pattern
- Lead section, Contact time, Room attributes, Cross-Listed sections (1-4), Students with a Disability Ind
- **Course Information**: Print Comments (1-4), Section Notes
- **Registration Information**: Open to Unit or Major (1-6), Open to Unit and Major Combination (1-4), Open to Minor (1-2), Open to Major Option (1-5), Open to Certificate (1-5), Open to Class Level (1-3), Class Restrictions (1-5), Honor Codes (1-5), Non-traditional Indicator, Residential College Code, Honors College Indicator
- Departmental Memo, Scheduling Dean Detail, Approver Memo
The red boxes in the screenshot below show changes to the fields that would initiate a ServiceNow ticket:

- **Fall/Spring**
- **Summer/Winter**
**Note:** The Scheduling Dean Detail box lets you explain to the scheduling dean why you are requesting the change. The Scheduling Dean Detail box will only appear if the following fields are changed:
- Type
- Pattern Request: BA, Pattern, Campus, Comment (when it’s the only change in the pattern request row)
- Requested Time/Buidling/Room/Campus section: BA, AM/PM Code, Day, Start time, End time, Period, Campus

Example of what the ServiceNow ticket data looks like in CSS:

<table>
<thead>
<tr>
<th><strong>Service Now Ticket Data</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Now Ticket: CSS0001005</td>
</tr>
<tr>
<td>Requester: trecord</td>
</tr>
<tr>
<td>Ticket Submitted Date: 08/10/2023 09:43:10</td>
</tr>
<tr>
<td>Ticket State: Change submitted in CSS &gt;&gt; Scheduling Dean Review &gt;&gt; OASIS Review &gt;&gt; Complete</td>
</tr>
</tbody>
</table>

**Approver Memo (Scheduling Office use only, visible to all)**
Editing Instructors of Record

The Section Detail page allows users from both academic departments and the Scheduling office to add instructors of record. Changes to instructors entered by academic departments do not require approval from the Scheduling office and are effective immediately.

Only individuals who have a valid record in the Rutgers employee database can be added as instructors. As a user types in a NetID or uses name keyword search, the system will suggest possible matches, displaying full names of matching faculty members and departments with which they have current affiliations.

The screenshot below shows Instructor Search window with results. Click on a NetID to add instructor to section and automatically recalculate load percentages.
Once the user adds an instructor, he or she may edit the following information:

- **Mode of instruction.** This can be set to “all” for all instructors, or instructors can be assigned to specific modes of instruction that the section’s meetings has. In the latter case, all instruction modes must have at least one instructor assigned.

- **Course role.** SIRS and EAB/SSC flags are set by default for the selected instructor role (SIRS flag cannot be edited and is only displayed for information purposes). The following roles are available:
  - **IN: Instruction-Primary** (SIRS=yes, EAB/SSC=yes). This person is teaching in the classroom, and is the primary (or one of the primary) individuals responsible for the course.
  - **RL: Recitation/Lab Leader** (SIRS=yes, EAB/SSC=yes). This person is teaching in a classroom, typically for the recitation period or lab portion of a lecture-and-lab course section. If there’s a Recitation/Lab Leader, there should also be an Instruction-Primary for the lecture portion of the course (otherwise, a warning is displayed, but the user may continue).
  - **CA: Course Assistant** (SIRS=no, EAB/SSC=yes). This person assists with the administration of the course. If there’s a Course Assistant, there should also be an Instruction-Primary for the lecture portion of the course (otherwise, a warning is displayed, but the user may continue).
  - **CC: Course Coordinator** (SIRS=no, EAB/SSC=yes). This person is responsible for coordinating the administration of all sections of a multi-sectioned course. If there’s a Course Coordinator, there should also be an Instruction-Primary for the lecture portion of the course (otherwise, a warning is displayed, but the user may continue). If the Course Coordinator is also an instructor for some of the sections, that individual should be entered twice: once as an Instruction-Primary, and once as a Course Coordinator. If the person responsible for coordinating the administration of all sections of a multi-sectioned course is the instructor for all of the sections, that person should only be listed as an Instruction-Primary.
  - **UI: Undergraduate Peer Instructor** (SIRS=no, EAB/SSC=no). This person is teaching in the classroom, and may or may not be the primary individual responsible for the course.

- **Class time.** Generally, the load should add up to 100% for all instructors assigned to the same mode of instruction; if the percentages do not add up to 100%, a warning will be displayed.

- **Show on SOC.** A flag indicating whether the instructor should be displayed on or hidden from the Online Schedule of Classes (Note: currently, unchecking the field will result in hiding the instructor from IMS. Other than that, it is more of a recommendation since downstream systems may choose to ignore it). Up to two instructors may be displayed.

- **EAB/SSC.** Checking this flag will make the information about the associated instructor of record and course available to the EAB student information platform (i.e., RaptorSuccess in Camden, RUN4Success in Newark, and SSC Campus in New Brunswick).

- **Display name** for Online Schedule of Classes (the default value is the instructor’s real name; however, occasionally departments may choose to enter a different value, such as “Staff”). Currently, this value is submitted to IMS and picked up by the Schedule of Classes from there.

The system will permanently store the associations between internal instructor ids (allowing the instructor of record data to be linked to the full employee record) and the key of the section (term/year, school, subject, course, supplement, section, and index number, if available). It will also store the user’s selections for course role, instruction mode, display flags, and display name. Downstream systems may access this information as needed.
Request Enhanced Classroom

The **Enhanced Classroom Request** page is displayed when the **Enhanced Classroom** button is clicked. A scheduling officer will use the information entered on this screen to locate a room that has all the necessary equipment, in case the specific room requested by the academic department is not available, or when the department has not requested a specific room. To submit a request for an enhanced classroom:

1. Enter Contact Person, Phone Number and Email address of the Contact Person. These fields are required.
2. Select the meeting times for which an Enhanced Classroom is needed. To do this, click the appropriate box or boxes next to the Meeting Days/Times. At least one selection is required. **Note:** meetings “by arrangement” are not shown on this screen, since equipment may not be requested for such meetings.
3. In the drop down boxes located after the equipment, select the frequency of use for the listed equipment (Will not Use is the default). At least one selection is required.
4. Click on the **Request Enhanced Classroom** button to submit the request. After submission, you will be returned back to the **Section Detail** page. You will also see “✔️ Enhanced Classroom Requested” on the **Section Detail** page.
5. If you do not wish to save the changes, or if you would like to cancel the current request for enhanced classroom, click the Cancel Request button. The request will be deleted from the system, and you will no longer see “✔️ Enhanced Classroom Requested”.

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**Image Illustration:**

1. Fill in required fields
2. Select meeting times for which an enhanced classroom is needed
3. Select Frequency of Use
   - Will not Use (default)
   - Occasionally
   - Daily
4. Click Request Enhanced Classroom button
Entering Course Synopsis URLs

The Course Scheduling System allows authorized users from academic departments to provide links to department web pages that may contain course description and other information that departments may share. This information is fed to the Online Schedule of Schedule of Classes where it appears as **Synopsis** link next to every course offered by the department.

The location of the Synopsis link on SOC is shown below:

![Course Synopsis Links](image)

The selected URL is also displayed on Section Detail screen as a read-only link:

![Course Synopsis URL](image)
Course Synopsis Data Entry

The **Course Synopsis** screen can be accessed from CSS home page and from the main menu.

By entering the unit and department codes, the users access the data entry screen, where they can view and change the current synopsis URL for the department or enter a new URL.

**Note:** SOC provides access to multiple semester schedule at a time, and for every course the Synopsis link will point to the same location. Therefore, it is advisable that the departments provide links to generic pages that themselves contain links to descriptions for individual semesters.
Entering Full Course Titles and Core Codes

Full course titles appear on the Schedule of Classes and other University sites in addition to or in place of the brief titles, when space allows. Core codes are codes assigned to some courses by the School of Arts Sciences to indicate that these courses fulfil certain core requirements. The example below shows how these data elements appear on the University Schedule of Classes.

Unlike course synopsis URLs, titles and core codes apply to individual courses and may vary from semester to semester. Full titles are not to be confused with section subtopics – headings that apply to individual sections and may be edited on the Section Detail screen.

Viewing and Editing Full Titles and Core Codes

Authorized users access full titles and core codes by entering all of the identifying data for the course (semester, unit, subject, course number, and supplement, if applicable).
On the **Edit Course Information** screen an authorized user may add or modify the full title and add or remove core codes associated with the course (Ctrl+click to select multiple core codes). If the title is left blank, the short title (seen on the screen under the **Title** heading) will be displayed on the Schedule of Classes and all other sites.
Approver-Only Pages

All the editing functionality available to departments is also available to the approvers. Please see the Entering and Viewing Course Data section of this User Guide for information on features available to both approvers and users from academic departments.

Approvers may make further change to the information entered by departments and then may either save it in CSS staging area like department users do, or approve (submit it to IMS). It is important to distinguish between the Save and Approve buttons. Pressing Save will not submit transactions to IMS, and as a result the scheduled and updated versions will remain different. Pressing Submit SM, Submit RA, or Approve All will cause the requested changes to be applied to IMS.

Scheduling Databases and Data Integrity

When working with the Course Scheduling System, it is important to understand that the scheduling and room assignment data in fact resides across several databases. Some of these databases are synchronized in real time, others are synchronized nightly, and some are not synchronized at all and rely on users to ensure the integrity of data.

The IMS database is the location of master scheduling records. Most section information from IMS is loaded into the Schedule of Classes nightly, although the values that may affect student registration, such as the stop point, are synchronized in real time.

CSS database is the exclusive storage of changes requested by departments and enhanced classroom requests. In addition, CSS is the only entry point for making changes to course synopsis URLs and expanded course titles; some of this information may be propagated to the Schedule of Classes in real time by processes outside of the scope of CSS.

In order to highlight, on the section listing screen, the differences between department request in CSS and IMS master record that is the source of data for Schedule of Classes, CSS stores snapshots of IMS data. These snapshots are not updated when an IMS record is changed outside of CSS. Changing the IMS record in CSS will result in incorrect highlights.

Only approvers can update the IMS snapshot. The fastest and most reliable way to do so is to bring up the Section Detail screen.

IMS snapshots in CSS are updated in each of the following situations:

1. When a new semester is loaded into CSS for the first time and IMS snapshot is also created

2. When an approver clicks the Refresh button on the Section Listing screen, CSS overwrites the department’s changes with a copy of IMS data and also updates the IMS snapshot (this is the reverse of clicking Approve All on the Section Detail screen)

3. When an approver submits an SM or RA transaction, the IMS snapshot is updated with the latest state of the section returned by IMS. Note: if an error occurs during a transaction, the state of IMS snapshot may be compromised

4. When an approver brings up the Section Detail screen, the latest IMS data is shown and IMS snapshot is updated. However, when a department user brings up the screen, there is no communication with IMS and the snapshot remains unchanged

IMPORTANT NOTE: When CSS synchronizes with IMS, it uses the combination of term, unit, subject, course and section number (as well as supplement code, if it exists) as key. It does not use registration index number. Therefore, changes to any of these fields in IMS (key changes or section renumbering) will result in CSS being unable to find the correct section. The only way is
to load the correct IMS snapshot in such instances is to create a new section in CSS with the correct key. See the sections on Section Renumbering and Key Changes under the Section Detail Page – Approvers for further details.

**Master Course List** makes a subset of IMS course history data available to CSS. Changes to course history are loaded into CSS nightly.

### Section Detail Page – Approvers

The following buttons appear only if the user’s account is set up with an Approver role (Scheduling Office).

1. **Room Search** – transfers the user to the Room Search screen, which allows the user to select a room on IMS and transfer the data to the Section Detail screen. If the day and time of selection matches an existing meeting, that meeting’s room and building will be replaced with the new selections, otherwise new selections will be added.

2. **Edit Prereqs** – transfers the user to Edit Prerequisites page. That page allows the user to change prerequisites for all sections of the selected course.

3. **Add/Delete Coreq** – transfers the user to Edit Co-requisites screen. That page allows the user to specify a co-requisite. Delete Coreq unlinks co-requisite from the section.

4. **Approve SM** – submits section maintenance transaction to IMS and updates the scheduled section data in CSS. If IMS fills in any data that has not been submitted (such as an index number for a new section), CSS is updated accordingly.

5. **Approve RA** – submits room assignment transaction to IMS and updates the scheduled data in CSS. If IMS fills in any data that has not been submitted (such as capacity for room or literal times corresponding to selected period), CSS is updated accordingly.

6. **Approve All** – submits section maintenance transaction followed by room assignment transaction to IMS, and updates scheduled section data.

The following pages explain the distribution of the fields on the screen between IMS transactions and detail the functionality available to approvers.
Requesting Changes to Prerequisites or Co-requisites
Approvers may click on the Prereq and Coreq buttons to proceed to corresponding screens. Note: Clicking Approve All will not update prerequisites or co-requisites on IMS.

Making Changes Outside of CSS
The CSS system is designed to support any action required in the creation of Schedule. This includes the relatively complex scenarios of section renumbering and lead section re-linking. There should be no need to make changes to the schedule outside of CSS, and doing so is emphatically discouraged, because it may cause great difficulty when synchronizing the data. While the Refresh button has been provided, it will not work in some instances, such as when a section number has been changed.

When unsure about the best way to accomplish a task, please contact application support team before resorting to making changes outside of CSS.

Submitting Changes to IMS
To update only room assignments, use Submit RA button. This will submit to IMS all information in the “Requested Time/Building/Room/Campus” section except for contact time (which is part of SM transaction). It will also submit cross-listed section data.

To update only section maintenance data, use Submit SM button. This will submit to IMS all information that is not in “Requested Time/Building/Room/Campus” area and not in the cross-listed sections area. It will also submit contact time.

To submit both transactions, use Approve All button. This will submit SM first, followed by RA. Please note that it is possible for both transactions to fail, and it is possible for one of the transactions to succeed while the other one fails. In this case the appropriate error message will be displayed at the top of Section Detail screen. The CSS data pertaining to either transaction will be synchronized with IMS if that transaction succeeds.

If the IMS update is successful, the user is returned to the Section Listing screen. A status message will be displayed, informing the user that IMS has been updated. At this point CSS data will become the same as IMS data, so highlights on the section listing will disappear.

Note about IMS Errors
If an error occurs, the Section Detail page will be redisplayed with the error message from IMS on top. The user then may choose to resolve errors and resubmit the transaction, to abandon the transaction and save changes on CSS (by clicking Save), or to discard all changes by clicking Back to Listing.

It is important to understand that some IMS updates consist of multiple steps (for instance, changing meetings really involves deleting all of them and creating new ones), and an error may leave transaction in incomplete state (in our example, scheduled section may end up without any meetings if deletion succeeds but update fails). If an error occurs while interacting with IMS, the system will save the user’s current work. It will also attempt to save a snapshot of latest IMS data. However, this should not be relied on, because IMS does not always return correct snapshot. The very least this will do is mark section “changed” and thus alert the user to the fact that the state of section in CSS is inconsistent with IMS. The best way to deal with errors is to correct them immediately and resubmit, or immediately refresh from IMS.

When in doubt about the best way to proceed, please contact the application support team. Take note of the section that has the problem and all the error messages that are displayed on the screen (The best way is to print the page or to copy and paste its contents into another document; making a bookmark to the error page is not useful, because it will not save the messages and will not reproduce the error).
Creating New Sections and Changing Section Numbers

Both of the above tasks can be accomplished by Submitting SM transaction or by using Approve All button. For new sections, an index number will be assigned. For sections that are being renamed, the index number will be transferred to the new section number.

It is important to remember that when a lead section number is changed, the user needs to change both the number in the “section number” box and the number in “lead section” box, and use Approve All to submit both changes to IMS. After doing that, the user must verify that the lead section number has been changed, and if necessary, submit an RA transaction for each linked section separately. The highlights on the section listing will indicate which sections are affected.

IMPORTANT NOTE: It is extremely important to update linked sections immediately, before making any further changes to the lead section. Failing to do so will sever the link on IMS, and cause the changes to the lead section not to propagate to the linked sections.

Key Changes

The current version of CSS does not support key changes. However, the following workaround exists for synchronizing CSS with IMS after a key change is performed in IMS.

1. Perform the key change in IMS. This will transfer the index number, room assignment and any registered students to the new section

2. Use the Master Course List to create a copy of the new section in CSS. To save time, this may be a placeholder section with a "BA" room assignment. Note: If the new course did not exist before, it will become available in MCL the day following its creation in IMS

3. Use the "Refresh" button in CSS on the new section to load all the information from the new section in IMS. Verify that the correct index number appears. The new section can now be changed and approved from CSS

4. Delete the old section in CSS (performing the key change does not delete it automatically from CSS). Note: When accessing the Section Detail screen to delete the section make sure that you see the message indicating that the section no longer exists in IMS. This ensures that the correct section is being deleted from CSS

Using Approved Indicator

At the top of the Approve screen there is a checkbox that sets approved indicator on and off. This helps the approver to distinguish between sections that need more work, and sections that don’t. The approver decides when to mark a section approved based on his or her individual preference. The approved indicator is one of the search options, and is displayed on Section Listing. It is exclusively for convenience while searching, and does not affect the way system treats the section.

Using Override Flag

Sometimes it is necessary to submit an RA transaction despite any errors that occur. For instance, an approver may submit a room assignment before the room number is known, schedule cross-listed sections in the same room or schedule multiple sections to meet in the same room for a lab in addition to the lecture (in which case designating one of them a lead section will not help). In order to override warnings from IMS and update anyway, one can put a check in the Ovr. box to the left of the selected meeting time. For users familiar with the IMS interface, this is equivalent to putting an “X” in the change code.

Notes:

- Overriding is not needed for scheduling lectures for the lead section and sections linked to it

Meetings created with an override indicator are shown on the listing screen for approvers and administrators in a lighter color and further marked by the word “Ovrd.”
Deleting a Section
Pressing Delete button purges the section from IMS and CSS. After that, the section number and index can be reused (a user may choose to reuse the section number; he or she may not, however, force IMS to reuse the index).

Notes Regarding Lead Sections
When an RA transaction is submitted which updates lecture times or locations on IMS, the linked sections will be automatically updated, so it is not necessary to submit RA transactions for them. It is sufficient to press Refresh to make the highlights on the Course Listing screen disappear. However, in cases when a lead section number is changed (because of a key change, or because the lead section was unlinked or deactivated), IMS may not automatically update linked sections, even though CSS does. Therefore, the user may still need to submit RA transaction for each linked section.

Deactivating and Deleting Sections and Freeing up Rooms
Deactivating a section normally deletes all its meetings and frees up all rooms. However, if the section is a lead section, some special steps are required. When a lead section is deactivated or deleted, its lecture room assignment is passed on to the next active linked section.

However, if the lead section is the only active section with nothing linked to it, and it is deactivated, it retains the room and there is no way to free it. Deleting the section while it is active avoids this problem. **Deleting a section without deactivating it is the most reliable way to free up the room.**

The following workaround should always be used when a lead section needs to be deactivated.

1. When you have to deactivate a lead section, first make sure there is another active section in IMS that will become lead section (click Edit and make sure IMS data comes back!). If there is one, it is safe to deactivate the lead section; all linked sections will be automatically updated.

2. If there is no linked section, or if you need to deactivate all linked sections as well, do the following:
   a. Remove all lecture meetings from lead section (if the system does not allow to remove all meetings, add a "by arrangement" meeting).
   b. Submit RA transaction. Because this was the lead section, all linked sections will be taken out of the room as well. The room is freed up at this point.
   c. Deactivate sections in any order.

3. When a lead section is deactivated, CSS will put the new lead section number (which it tries to guess) on all linked sections. However, since it is not possible to guarantee that IMS will choose the same lead section, the user must verify it.
   a. Open each section with highlighted lead section number for editing.
   b. Verify (on the edit screen) that IMS has the same lead section number.
   c. If the data is not the same, choose the version you would like to keep. In order to keep the CSS version, click “Approve All”. To keep the IMS version and discard CSS changes, return to listing and click “Refresh”. This will synchronize the data and remove the highlights.

Renumbering Sections
Occasionally, it becomes necessary to change numbers of a section or a group of linked sections. A “placeholder” section number may be used if two sections need to switch numbers. For instance, to switch sections 01 and 02, change 01 to T1, then 02 to 01, then T1 to 02. **Each section number change must be immediately submitted to IMS using “Approve All” button** ("Submit SM” may be used if the section is not a lead section and does not have a lead section).
CSS will automatically update all the cross-listed sections if you change the number for one of them. It is advisable to submit SM to update the database with new numbers before making changes to room assignments.

Special care is needed when renumbering a group of sections, in order to keep the links intact. The following sequence is recommended:

1. Start with the lead section. Change the number of the section AND the number in "lead section number" box. **Make sure you are not choosing a number that is already in use!** You may make any other changes, just don't deactivate it. Approve All. This will change and highlight the lead section number on all linked sections, so they will be easy to spot.

2. For each linked section, change the number of the section and verify that the number in "lead section number" box is the new lead section number. You may make any other changes, as long as you don't change the lecture meetings. Approve All. The highlights should disappear.

**Notes Regarding Cross-Listed Sections**

In simple cross-listings (when all sections meet together all the time) the primary section fully controls the room reservation, and secondary sections hold no rooms. Therefore, **there is no need for overrides with cross-listings.**

CSS will try to update the entire group of cross-listings when section numbers or room assignments change; however, care needs to be taken to work from the right direction: **link from the side of the primary section, unlink from the secondary.**

To change a room assignment on an existing cross-listing, edit the primary section. CSS will automatically update RA for all secondary sections.

To create a new cross-listing, start with the section that is going to be primary and add all the sections that are supposed to be cross-listed with it. The system will automatically update all other sections. Once you submit RA, the rooms held by secondary sections will be freed up, and all sections will be updated with the same meeting times and room assignments as the primary section. It is also possible to add more secondary sections to an existing cross-listing, as long as you work from the primary section.

If the primary section needs to be cancelled, all its cross-listings first need to be either also deactivated or unlinked (become independent sections).

To make formerly cross-listed sections independent, start with any secondary sections and remove all its cross-listings from the “Cross-listed sections” area of the screen. You will then need to find a new room and submit RA, because the prior room assignment will be held by the former primary section.

**A Note Regarding Contact Time**

Contact time in IMS can only be updated if a section has a room assignment with a BA indicator set to “A”. However, CSS will set BA indicator to “A” only if there is a value for contact time. For this reason, in order for contact time to work correctly, the user will have to submit RA transaction before SM in case the section has contact time. This will be problematic for sections which had been requested in CSS but do not yet exist in IMS. For such sections, the user will have to submit SM first (this will create section in IMS without contact time), then submit RA (this will create room assignments with “A” BA indicator), and then submit SM again (this will update contact time).
Using Room Search

**Conducting a Search**

1. Select meetings for which to find a room. If multiple meeting times are selected, they will all be assigned the same room. The user may change the preferred times of meetings, or add new meetings on this screen.

2. Verify search parameters

3. Choose override dates if necessary

3a. Specify capacity, alternate capacity, room types, and room attributes if necessary

4. Start the search

This is the Room Search page. Approvers access it by clicking Room Search button on Section Detail screen. Initially, the screen is populated with the meeting data from the section currently being edited (if any such data has been entered). The section’s stop point is used to populate capacity value in the search criteria.

1. First, the user selects for which meetings to find a room. If multiple meeting times are selected, they will all be assigned the same room. The user may change the preferred times of meetings, or add new meetings on this screen.

2. Campus information from meetings is transferred to “Course Information” area at the top of the screen (if selected meetings currently have different campus codes, the first selection will be used).
3. The user verifies selections in the “Course Information” area and makes changes or chooses additional parameters, such as building, literal dates (to override the term selection), room types, and room attributes (multiple selections are supported with Ctrl+click).

4. The user clicks **Search**. The search results are returned, or, if an error occurs during room search, the Search Screen is redisplayed with an error message on top. The user may then modify search criteria to correct the error.

**Notes:**
- Academic departments may not add room attributes to sections directly. Approvers need to choose room attributes based on the information supplied by the requesting department through the **Enhanced Classroom** screen or the Department Memo.
- Room search limits the maximum capacity of selected rooms depending on the minimum values specified. For example, if the minimum capacity value is less than 50, only rooms accommodating less than 100 persons will be returned.
- IMS RS screen allows the user to specify a single room type code, defaulting to “110” if the selection is left blank. CSS room search simulates this behavior and additionally allows to select more than one room type at a time.
## Selecting a Room and Updating Room Assignments

This is what room search results may look like. On this screen the user may select a room for the selected meetings by using the radio button next to the preferred room number. The user is then transferred to **Section Detail** screen, where the selected room would be attached to the selected meeting times. To perform the actual room assignment, the user will press **Submit RA** or **Approve All** on **Section Detail** screen.

**Note:** Clicking **Select** on Room Search Results does NOT submit the room assignment transaction and does not update IMS!
This is a part of Section Detail screen after the user has selected a room.

In the above example, the user has selected HH-B4, and on Section Detail screen the existing room assignment for the 4th period on Monday and Wednesday will be replaced with this room.

**Note:** If a search selection does not match any of existing meeting times, a new meeting will be added with the selected room.
Working with Temporary Room Assignments

The **Temporary Room Assignment** screen allows approvers to create temporary assignments in IMS. The controls on this screen work exactly the same way as in the room assignment area on **Section Detail** screen.

The data on the screen comes directly from the scheduling database, and all updates are submitted directly to the database.

Check first, check twice, and then Save to make an assignment permanent.

Make sure that the box is checked when creating a temporary assignment.

* - Indicates required fields.

** - Either period selection or literal time is required for each meeting. Either campus code or building is required for each meeting.

When the screen is initially accessed, it will contain all existing temporary room assignments. The user may modify them, delete them, make them permanent, or add new temporary assignments. All changes submitted on this screen are sent directly to IMS and are not retained by CSS, except when creating a permanent room assignment.
Editing Prerequisites

This screen allows approvers to make changes to prerequisites in IMS. Once the prerequisite transaction is successfully submitted, CSS is updated with the most recent prerequisite data.

When the user selects a format code for prerequisites, the screen is refreshed to reflect it. The user may change or add courses, while the Boolean operators are generated automatically based on the selected format code.

The prerequisite information entered on this screen will be used to determine students’ eligibility to register for courses. Any changes entered on this screen apply to all sections of the selected course.

The Prerequisites as Text section shows a preview of the current prerequisites as they appear on Online Schedule of Classes (if already published). In some rare cases, when the list of prerequisites is very long, the formatted string does not match the actual prerequisites entered, resulting in a situation when some of the courses that fulfill prerequisite requirements are not shown on Schedule of Classes. Students who have taken these courses are still eligible to register.

Any department users’ notes will be displayed on this page in case they contain requests related to prerequisites.
Editing Co-requisites

This screen allows approvers to add co-requisites in IMS. The user may assign a co-requisite to the section currently being edited by using either index number or unit/subject/course/section/supplement.

If a course has more than one section in CSS, the user will be offered an option to link the same co-requisite to some or all of the additional sections. In the example above, several introductory French language sections are being linked to one section of language lab.

Once the co-requisite transaction is successfully submitted, all affected sections in CSS are updated with the most recent co-requisite data.

Co-requisites are listed on the listing and section detail screen.

To unlink a co-requisite, press "DELETE" button under the co-requisite heading on Section Detail screen.

**Note:** Unlike adding a co-requisite (when all sections are updated automatically), unlinking must be repeated for each section. For example, if both 01:420:101:02 and 01:420:101:03 list section 01:420:103:01 as co-requisite, IMS will physically link it to only one of these sections.

In order to unlink it from both sections, the user must bring up 01:420:101:02 and delete the co-requisite, and then bring up 01:420:101:03 and delete the co-requisite. 01:420:103:01 will be updated automatically as soon as it is unlinked from the section to which it had been linked (in the screen shot above, it is 01:420:101:02).
Adding Information for First Year Sectioning (Admin Only)

Approvers with admin-level privileges may use CSS to find courses that are available for first year sectioning, to determine which sections should be included in the first year sectioning process, and to edit certain data elements for First Year Sectioning.

Section Search screen has two additional filters for admin-level approvers:

To select all sections that belong to courses that are part of First Year Sectioning process for the upcoming Fall semester, choose the “All courses in FYS” in the Included in FYS filter. Other options in the dropdown box let the user further filter the results based on whether a specific section has been chosen for FYS or excluded from FYS, or find sections for which the decision has not been made.

Section Detail screen for sections of the courses that are part of First Year Sectioning process has additional controls for including or excluding a specific section from first year sectioning, for assigning title and suffix A values (use control key to select multiple or unselect all) to it, and for entering the number of seats to reserve for first-year students:

For sections belonging to courses included in the First Year Sectioning process, this information will be shown on the Search Results screen:
CSS Administration

Several administrative functions are available in CSS for a limited number of authorized users. These include access administration and data-intensive reports. To access the screens described in this section of the User Guide one needs an “administrator” account, which has more privileges than the “approver” account.

Upon logging in, administrators see “Administration” button in their main menu which appears on every screen. Clicking this button brings up the menu of all administrative functions.

Managing Users

Administrators control the permission levels for all other users. **Note:** a user must obtain a net id prior to being given access to CSS. To locate a user, type in the user’s name or net id and click **Look up.** This searches the People database – the database of Rutgers students, faculty and staff. Only users who have net id will be included in the search results.

If there are multiple users matching the selection criteria, a list of names to choose from will appear. If only one user matches, the User Information and Permission Screen will come up.
Using this screen, an administrator may add user to the system, change user’s privileges, or delete the user, revoking his or her access to CSS.

**Note:** Deleting a user only revokes CSS access. It will not affect the user’s Net id account or record in People database.

There are various parameters that determine a user’s privileges in the system.

1. The role – determines what this user may and may not do. There are three roles: requestor (from an academic department), approver (Scheduling Office), and administer. Department users (role code **DPT**) may only request changes to section. They may not update the schedule on IMS and may not see IMS data in real time. Approvers (**APP**) – may submit changes to IMS. Because of that, each approver needs an IMS account in addition to the NetId (see [Creating Approver Accounts](#) in this User Guide). Administrators (**ADM**) – have the same access as approvers, and also may use the Administration module.

2. The campus code – associates the user with a campus. Doing so will grant the user permission to edit sections during time windows specified by administrators for the particular campus, and revoke this right once the window is over. See [Managing Access Dates](#) for more information on access windows.

3. The unit and subject codes – determines which sections the user may edit. Users with no units assigned have read-only access.
**Creating Department Accounts**

To create an account for a requestor from an academic department, locate the user and use the User Information screen to do the following:

1. Type in the full name, as you would like it to appear in the “updated by” field when he or she edits sections
2. Choose DPT role from the dropdown box
3. Choose the campus where the user works
4. Use the access request form submitted by the user to assign units and subjects. For each unit requested, check “Add unit” and click “Add units or subjects”. If the user is allowed to edit any section offered by a specific school, select “All Subjects” for the unit, otherwise, check “Add subject,” click “Add units or subjects,” and type in subject codes; repeat these steps as necessary. If you do not add any units, the user will have read-only access to all sections
5. Click “Update User.” This will create the CSS account

**Creating Approver Accounts**

To create an approver account, you need to perform the same steps as for a department user, but also type in IMS user name and password. IMS username and password must be obtained from EAS prior to creation of CSS approver account. The system will not allow an account with approver privileges to be created if the IMS user id and password are not supplied.

**Note:** The IMS accounts used to access IMS terminals (with user names starting with the letter “U”) will not work for this purpose!

It is necessary to contact CSS support and request the access to the following five IMS transactions to be granted: SM, RA, CQ, PR, and RS, and mention that the account is needed for the CSS application and must be able to access the mainframe without SecureId. Also mention that Shadow Web access is needed (Shadow Web is the technology that enables the web application to invoke IMS transactions).

Once you receive the username and password from EAS, you are ready to create the account with APP role and to grant access to units and subjects. CSS support can also create the account if provided the new user’s Net id.
Managing Access Dates

Access dates determine when certain groups of users may edit sections. Access dates are specified by an administrator for each term and each campus. It is also to create exceptions for specific schools and departments. If a user is logged in outside of the access period specified for his or her role, all sections will appear read-only regardless of the user’s individual privileges. To edit access dates, choose campus and semester, and then click **Manage Access Dates** on the administrators’ menu.

Access dates are set separately for academic departments and approvers, but the time periods may overlap if needed, i.e. departments and approvers may be making changes at the same time.

In the example above, the end date for department changes is 12/19/2014 for all schools in New Brunswick but Math department in SAS (01:640), allowed to make changes until 02/15/2015. The Scheduling Office may make real-time IMS changes through the end of semester.
Managing Scheduling Patterns

Definitions of scheduling patterns are stored in the Timetabler. However, since there is currently no way to receive pattern definitions from Timetabler, a subset of information about patterns, which CSS needs for recording scheduling requests, must be manually synched with Timetabler by using the Pattern Management screen in CSS.

The fields are defined as follows:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Req.</th>
<th>Length</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATTERN NAME</td>
<td>Yes</td>
<td>30</td>
<td>Text</td>
<td>Pattern name as shown in Timetabler</td>
</tr>
<tr>
<td>MASTER GRID NAME</td>
<td>Yes</td>
<td>30</td>
<td>Text</td>
<td>The name of the master grid the pattern belongs to, as shown in Timetabler</td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>No</td>
<td>35</td>
<td>Text</td>
<td>Optional description to be shown to users in CSS</td>
</tr>
<tr>
<td>SHOW TO DEPARTMENTS</td>
<td>Yes</td>
<td>1</td>
<td>Y/N flag</td>
<td>A flag that indicates to CSS whether this pattern should appear in the dropdown box for department users to select</td>
</tr>
<tr>
<td>ACTIVE</td>
<td>Yes</td>
<td>1</td>
<td>Y/N flag</td>
<td>A flag that allows administrators to “archive” a pattern by making it inactive when it is impossible to delete it.</td>
</tr>
</tbody>
</table>
Creating Section Difference Reports

Section difference report has the same format as the PDF view of the course listing (see Course Listing section of this User Guide). The only difference is that the Administrative Reporting module does not limit the number of sections that can be viewed, which allows it to produce a report that includes every section in the system. To access Section Difference reports, click Generate Section Difference Reports in administrators’ menu.

The first set of criteria on the screen is for generating the Construction Sheets report in PDF, which contains all section fields. The second option shows a comparison of a limited set of fields in CSV. Both reports use the IMS snapshot in CSS rather than access IMS directly.

If the Construction Sheet report (PDF) contains more than a thousand sections, it will be split into files of a thousand sections each, which need to be printed or downloaded separately.
Creating Enhanced Classroom Reports

The Enhanced Classroom Report produces, in Microsoft Excel format, a list of all sections that have an enhanced classroom request, and indicates the meetings for which enhanced classroom equipment has been requested during a specific term. The data can be further filtered by school / subject / course / section / supplement code.

To create this report, click on Enhanced Classroom Report in Administration menu, select desired criteria (only year and term is required), and click Generate Report. A pop-up window should appear offering you to view the report (requires MS Excel) or save it on your computer.

Administering System Messages

Occasionally, it becomes necessary for the Scheduling Office to communicate a message to all other users of the system. The System Messages screen, accessible from Administration menu, serves for creating and administering such messages.

Note: System messages are cached on the server in order to improve system performance, and the cache is refreshed periodically. For this reason, it may take up to an hour for a new message to appear, for a deleted message to be removed, or for changes to an existing message to become visible.
The following options are available when creating a message:

1. **Type:** a message can be created as "Information" or "Warning." Warning messages are displayed in a red font on a pink background; information messages are displayed on grey background

2. **Placement:** a message may be placed only on the home page or on every page

3. **Start and end dates:** the start date is required and the end date is optional. If the end date is omitted, the message will be displayed until it is deleted

An example of a warning-type message on the Home page:

![Warning Message Example](image-url)
Validating Room Assignments

Because data pertaining to room assignments is distributed over three databases, some of which may be updated independently from others, CSS provides to administrators a report that detects most of the discrepancies between these databases.

The “Room Assignment Integrity Check Report,” accessed through Administration menu, compares the snapshots of IMS data stored in CSS with room reservations on room scheduling database (the database against which the Room Search runs and where room assignments are checked for conflicts). Discrepancies between these two databases usually point to incorrect room availability data (an available room shown as unavailable or a reserved room shown as free). This may result in a situation in which multiple courses claim the same room or a situation in which sections cannot be scheduled in a room that is free.

Note: For large data sets, such as a unit or an entire semester, the report may take several minutes to run.

A sample fragment of a report is shown below:

```
Room Assignment Integrity Check

This report detects two kinds of data integrity problems:

1. Activities that are slated to appear on the Schedule of Classes but do not have the specified room reserved for them, and
2. Rooms reserved by activities that do not exist according to the Schedule of Classes

Select the Criteria for the Report

Year and Term: Fall 2014  Unit:  Subject:  
[Run the Check]
```

The following scheduled meetings do not have room assignments:

- 01:220:102: 01 H SC-123 11:30 AM - 12:50 PM between 2014-09-08 and 2014-12-08
- 01:220:102: 01 M SC-123 11:30 AM - 12:50 PM between 2014-09-08 and 2014-12-08
- 01:220:102: 02 M SC-123 01:10 PM - 02:30 PM between 2014-09-08 and 2014-12-08
- 01:220:102: 02 W SC-123 01:10 PM - 02:30 PM between 2014-09-03 and 2014-12-10
```
**How to read the “Room Assignment Integrity Check Report”**

The report may contain up to three sections (those containing no data will not be shown). The following table explains what should be done about the records in each section.

**Note:** If a room assignment is updated in IMS outside of CSS, the snapshot in CSS will be out of sync with the room scheduling database, even though IMS will be in sync with it. In this case, refreshing the IMS snapshot for the affected section (please see the corresponding section in the Approver chapter) is usually sufficient to remove its meetings from the report. For this reason, it is important to compare CSS data with IMS data before taking any action.

<table>
<thead>
<tr>
<th>Section Heading</th>
<th>Possible Reason</th>
<th>Suggested Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The following scheduled meetings do not have room assignments”</td>
<td>This section contains the list of meetings that appear in a specific room on the Schedule of Classes but do not have the room reserved. As a result, the room may be taken by another activity, creating a conflict. Certain valid room sharing arrangements, such as cross-listings and lecture sharing are excluded from the report to avoid false positives, however, shared labs may appear.</td>
<td>An approver should examine the section and its lead, linked and cross-listed sections to determine whether the absence of room reservation is a result of a valid sharing arrangement. If it is not, the approver should resubmit the affected section to reserve the room and make sure no error messages are received. Any errors or warnings should be reported to the support team.</td>
</tr>
<tr>
<td>“The following room assignments do not correspond to any scheduled meetings”</td>
<td>This section shows course meetings that have room reservations but do not show up on the Schedule of Classes. This situation usually arises as a result of a system error or an incorrect sequence of actions when deactivating sections.</td>
<td>An approver should verify that the data in CSS is correct and attempt to resubmit the affected section. If the update succeeds, the approver should rerun the report and verify that the section no longer appears on it. Any errors or warnings should be reported to the support team.</td>
</tr>
<tr>
<td>“The following are temporary assignments”</td>
<td>Temporary assignments take up rooms, but do not appear on the Schedule of Classes unless made permanent.</td>
<td>At some point before the Schedule of Classes is finalized, an approver needs to decide whether the room assignment is needed. If it is needed, it should be made permanent. If the assignment is no longer needed, it should be deleted to free up the room.</td>
</tr>
</tbody>
</table>
Using the Room Availability Report

The Room Availability report shows all rooms available on a selected campus for the standard period combinations defined by the scheduling office. It includes room capacities, a list of attributes, and any scheduling notes.

Note:
For this report, results are not filtered by capacity. All available rooms are displayed. The report uses the default room type of 110.

1. Select semester and campus
2. Click “Run the Report”. Results may take about a minute to appear
3. Click on headings to expand or collapse sections
Requesting Reports from CSS Data

The CSS application has been designed and optimized for comparing and reconciling the scheduled sections with the requests made by academic departments. It must always be understood that the data stored by CSS is a work in progress and not the official schedule of course offerings, and that it may change without notice.

For this reason querying this database from outside CSS is generally not supported, with the exception of Section Difference Report and Enhanced Classroom Report described in the Administration section of this User Guide, which can be run as needed by authorized users. Those interested in receiving copies of these reports should contact the Scheduling Office.