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Banner Student Attendance Tracking  
Handbook

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## Introduction

The Banner® Student Attendance Tracking application allows faculty members to track student class and meeting attendance and absence using specific criteria.

Administrative pages are used to create processing rules, and Self-Service pages are used by faculty members to enter and monitor attendance data. Students can also view their attendance data in Self-Service. A series of **GTVSDAX** rules is used to control data display and processing in Self-Service. Existing CRN attendance data from an external source can be loaded into the application. Data from the 8.x localized version of the application can also be migrated into the 9.x application.

## Important changes with this release

Beginning with Banner Student Attendance Tracking 9.3, Attendance Tracking is a stand-alone application consisting of two self-service pages (**Faculty Attendance Tracking** and **Mark Attendance**) that allow faculty to view their classes and take attendance.

The portion of Banner Student Attendance Tracking 9.2 that was the **Student Attendance Tracking Self-Service** page has been merged into a consolidated application called Banner Student Self-Service 9.5. Student Self-Service 9.5 also includes the **Student Profile**, **View Grades**, and **Class List** pages.

The portion of Banner Student Attendance Tracking 9.2 that was the **Faculty Attendance Administrative** pages is now included with the Banner Student Administrative Pages 9.3. Installing the Banner Student Administrative Pages 9.3 release (or later) will give you all of the newly transformed Banner Student pages. Ellucian recommends this option.

If you have already installed the Attendance Tracking 9.2 Administrative application, you will still have access to the two Attendance Tracking-specific pages – **Attendance Tracking Rule Setup Page (SOATRК)** and **Attendance Tracking Meeting Rule Setup Page (SOATMT)**.



# User Interface

This section describes how to access and become familiar with the Banner 9.x user interface.

## Banner Getting Started Guide

You can refer to the *Banner 9.x Getting Started Guide* for information on the following.

- object naming conventions
- logging in to the application
- user interface details
- page details
- keyboard shortcuts
- filters and queries
- Value-Based Security (VBS)
- Supplemental Data Engine (SDE)
- Multi-Entity Processing (MEP)
- data masking
- object maintenance
- data extract
- terminology usage from Banner 8.x to Banner 9.x
- translations

## Log in to Self-Service

Users can access **Attendance Tracking** (Student & Faculty pages), **Class List**, **View Grades** and **Student Profile** pages from within Student Self-Service as a stand-alone application or as individual menu items from within Banner Student Self-Service 8.x or Banner Faculty and Advisor Self-Service 8.x.

## Log out of Attendance Tracking

When you exit out of Attendance Tracking, *always* use **Sign Out** at the top of the page, and then exit out of the browser. This will completely close your session.

The application uses cookies and caching, so if you do not sign out completely, the next person who uses that computer may be able to access your attendance tracking records.

## Web Tailor Info Text

Info Text is used for the Getting Started tabs for both the Faculty and Student Attendance Tracking pages.

This text can be customized at your institution using Web Tailor. The Info Text is contained in three labels for Web Tailor procedure ATTR9: `GettingStartedTitle`, `GettingStartedBody`, and `GettingStartedFooter`.

**Note:** As the Info Text for the Getting Started tab can be customized at each institution, no translations are delivered for this data.

Links to other websites or email addresses can be included in the Info Text. You can also create a link to institution-specific instructions for entering attendance data, such as a .pdf file. However, when customizing the Info Text entries on the **Customize the Selected Information Text Entry** page (`twbkwinf.P_ModifyPgInfoText`), be aware that the **Image** field is not supported for Attendance Tracking.

Information text is stored in the Web Tailor Repeating Information Text Table (TWGRINFO). There is a limit of 2000 characters per record. Records are concatenated for display. Refer to the “Using Web Tailor” chapter of the *Banner Web Tailor User Guide* for instructions on customizing Info Text.

**Note:** HTML formatting is not supported in the Info Text entries for Attendance Tracking. Use Markdown language to format the Info Text rather than HTML. This protects your institution against the injection of scripting into the entries. Refer to the section [Appendix B – Markdown language](#) on page 90 of this handbook for more information on using Markdown language.

## Web Tailor procedures

Web Tailor procedures on the **Select Information Text to Customize** page (`twbkwinf.P_ReorderPgInfoText`) are used with this enhancement.

Procedure Name	Description	Enabled	Source
ATTR9	Infotext for Banner 9.x Faculty Attendance Tracking	Y	B
SATTR9	Infotext for Banner 9.x Student Attendance Tracking	Y	B

## Web Tailor labels

Web Tailor labels are used on the **Reorder or Customize Information Text** page (`twbkwinf.P_ReorderPgInfoText?name_in=ATTR9` and `twbkwinf.P_ReorderPgInfoText?name_in=SATTR9`). These labels contain the seed data

for the text used in the Getting Started tab in Banner Faculty and Advisor Self-Service and Banner Student Self-Service.

Click **Copy Baseline entries to Local** to copy the seed data. You can then modify the text as you want.

Seq #	Label	Source	Info Text
<i>The following labels are used with procedure ATTR9 for Banner Faculty and Advisor Self-Service.</i>			
1	FGetStartedBody	Baseline	#####Use this page to enter attendance tracking information for the students in your courses.  * Only your courses which are open for attendance tracking are displayed.  * View your course and student details.  * Sort your Course List or Roster by clicking on column headers.
1	FGetStartedFooter	Baseline	If you have questions, please email the Registrar <a href="mailto:YourRegistrar@YourInstitution.Edu">mailto:YourRegistrar@YourInstitution.Edu</a>
1	FGetStartedTitle	Baseline	Welcome to Banner 9.x Student Faculty Attendance Tracking
<i>The following labels are used with procedure SATTR9 for Banner Student Self-Service.</i>			
1	SGetStartedBody	Baseline	#####Use this page to view attendance information in your courses.  * Only your courses which are registered for are displayed.  * View your course.  * Sort your Course List by clicking on column headers.
1	SGetStartedFooter	Baseline	If you have questions, please Email the Registrar <a href="mailto:YourRegistrar@YourInstitution.Edu">mailto:YourRegistrar@YourInstitution.Edu</a>
1	SGetStartedTitle	Baseline	Welcome to Banner 9.x Student Attendance Tracking Self-Service

## Image files

Student photographs can be displayed in attendance tracking.

The following image file formats are supported:

- .gif

- .bmp
- .jpg
- .png

The preferred standard for images is a .jpg file. The No Photo Available image is a .png file due to the art used in the graphic.

- Remember to maintain a square aspect ratio for all images.
- Establish a maximum resolution of 200 pixels by 200 pixels.

## File name restrictions

In Banner, it is possible for student IDs to begin with numbers. However, some file systems require that files begin with a letter instead of a number.

To ensure that a student's photograph can be displayed on all systems, it is required that all student picture file names that start with a letter use the character I as the starting character. For example, a student with an ID of 12345678 would require a photograph file name of I12345678.

**Note:** A student with an ID of S12345678 could use a file name of either S12345678 or IS12345678.

Some file systems restrict the number of characters a file can have; so, to ensure that a picture can be displayed, we support removing the first two characters of a student ID, as long as the ID has five or more characters. For example, if we have a student with an ID of S12345678, any of the following file names may be used to associate a photograph with the student:

- IS12345678
- SI12345678
- I2345678

For a student with the student ID of S12345678, the photograph for the student may use any of the following file names:

- IS12345678.jpg
- SI12345678.jpg
- I2345678.jpg
- IS12345678.png
- SI12345678.png
- I2345678.png
- IS12345678.gif
- SI12345678.gif
- I2345678.gif
- IS12345678.bmp
- SI12345678.bmp
- I2345678.bmp

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## GTVSDAX rule

Remember to set the `PHOTOS` rule on **GTVSDAX** to `Y` to display photos in the application.

## Configure photo location

The file location where student photograph files can be placed is configured using the `banner.picturesPath` property in the configuration file for each application.

For example:

```
banner {  
  picturesPath = System.getProperty('base.dir') + '/test/images'  
}
```

In the example above, the `picturesPath` equals to the application's base directory appended with `/test/images`.

- If no value is provided in the application configuration files, `/test/images` will be the default location.
- If a student photograph does not exist, a default image will be displayed. The default image is configurable using the configuration file.

For more information on the photograph configuration, refer to the *Banner Student Attendance Tracking Installation Guide*.

## Replace default image file

To replace the default image file that is displayed when the student's actual photo is not available, do the following.

### Procedure

1. Select an image file to use, and name it "no-photo-available".
2. Make sure the file uses one of the four supported formats (`.bmp`, `.gif`, `.jpg`, `.png`).
3. Place the image file in the `picturesPath` location.

### Results

This image replaces the delivered default image. If these steps are not performed, the default image file delivered in the WAR file will be used.

**Note:** These steps are only for use with Banner Student Attendance Tracking. Other Banner 9.x applications may require different steps to replace the default image file.

## Date formats

Date formats for Banner Student Attendance Tracking are not set up using Web Tailor. They are defined in the local specific `messages.properties` files using these properties.

- `default.dateEntry.format`  
Determines the date format for the application for day, month, year, and century display.
- `default.date.format`  
Determines the date format for display and entry in the user interface and validates the date entered against the format.
- `js.datepicker.dateFormat`  
Determines the date format for the interactive date selection control.

Refer to the *Banner Student Attendance Tracking Installation Guide* for more information on using date formats.

You can also use the `default.firstDayOfTheWeek` parameter to configure the start of the week for specific locales.

## Multi-Entity Processing

Multi-Entity Processing (MEP) is available for Banner Student Attendance Tracking. The MEP institution name is displayed in the items at the top right of the Web page. Refer to the *Multi-Entity Processing Handbook* for more information on using MEP.

### About this task

The MEP URL for Self-Service uses a parameter of `mepCode` that corresponds to the `GTVVPDI_CODE` value in `GTVVPDI` table.

For example:

For <code>GTVVPDI_CODE</code> value	with <code>GTVVPDI_DESC</code> value	URL would be
INST	Institution	<a href="http://localhost:8080/AttendanceTracking?mepCode=INST">http://localhost:8080/AttendanceTracking? mepCode=INST</a>
BANNER	Banner College	<a href="http://localhost:8080/AttendanceTracking?mepCode=BANNER">http://localhost:8080/AttendanceTracking? mepCode=BANNER</a>

To switch between institutions, the `mepCode` in the URL has to be populated accordingly, and the page has to be refreshed before the user can proceed further.

Use the following steps for MEP with Attendance Tracking for Banner Faculty and Advisor Self-Service.

---

**Procedure**

1. The user logs in to a specific institution.

The institution is determined by the link the user selects, such as:

- Attendance Tracking – MEP=INST
- Attendance Tracking – MEP=BANNER
- Attendance Tracking – NO MEP CODE

Selecting the link takes the user to the Attendance Tracking login page where the user name and password are entered.

2. The user is presented with a list of students and CRNs. The displayed data is specific to the MEP code that is selected.
  - a) The student user can view the data.
  - b) The faculty member user can select a record and update the attendance information.

## Value-Based Security

Banner's Value-Based Security (VBS) uses Oracle's Fine-Grained Access Control (FGAC) to provide row level security to Banner data. Using VBS with FGAC for Banner Student Attendance Tracking 9.x is optional.

- Security is implemented one time and is enforced by all products and tools which access the database.
- Flexible group rules can be developed and maintained for business profiles and users. You can set up and change FGAC security definitions as business practices change.
- FGAC security is carried over to all Banner processing including:
  - Banner 9.x Administrative System
  - Banner 9.x Self-Service
- Forms are used to establish FGAC policy rules on a table, table relationships, and user access rules.
- Users, individual Banner processes, and jobs can be excluded from FGAC security.
- FGAC security rules (predicates) can be defined to include a single column or multiple columns. Oracle table rows can also be secured based on column values or other data elements.

If a Self-Service user has an Oracle user name, the database connections will be proxied for that user. This means that FGAC rules may apply, and the audit trail should reflect the actual user. If the user does not have an Oracle user name, then FGAC will not be in effect.

# Use Attendance Tracking

This section discusses Attendance Tracking processing and includes step-by-step instructions for setup and use, along with associated Banner pages, tables, view, and Self-Service pages.

## Processing overview

Attendance Tracking is used to track attendance and absence statistics for students by CRN.

Self-Service pages are available for students to view attendance tracking information and for faculty members to enter attendance tracking information. Faculty members can enter attendance data on a laptop or mobile device in the classroom. Student photos can be displayed for verification of attendance.

Tracking is done at the meeting level for sections. A student's attendance can be marked as present or absent; meeting cancellations and notified absences can also be recorded. Behind the scenes, the total expected class time, the actual class time present, and the class time absent are saved. Optionally, the student's total attended hours or last date of attendance or both can be recorded for all meetings within the CRN.

You must explicitly enable Attendance Tracking by entering configuration on one of the two following pages:

- Use the **Attendance Tracking Rule Setup Page (SOATR)** to set up attendance tracking rules by term.
- Use the **Attendance Tracking Meeting Rule Setup Page (SOATMT)** to set up attendance tracking meeting rules by term, CRN, and individual meeting.

Attendance tracking can be configured/activated by term, part of term, course, section, or specific class meeting. Specific dates can be defined for when attendance tracking information can be entered. The rules are evaluated using a hierarchy that works from the term downwards. When attendance tracking is set at the term level, no lower levels are needed.

However, if a different method of tracking is used for a specific part of term, course, section, or class meeting, rule(s) can be defined at a lower level than the term. The system then moves up the hierarchy to find the most specific tracking rule to display in Banner Self-Service, starting at the section meeting level and then continuing upwards.

When students are added to CRNs for which attendance is being tracked, student records are added dynamically for each class meeting as the faculty member records attendance. Furthermore, when a student is dropped/removed from a CRN for which attendance is being tracked, those attendance tracking records remain in the attendance history for the student.

The following methods of recording the attendance data are available on the **Mark Attendance** self-service page in Attendance Tracking:

- **Hours Absent** — Faculty members enter the hours and minutes a student has been absent from the meeting. The hours present are calculated, based on the expected hours. Data is entered at the hour level and minute level.



- **Hours Present** — Faculty members enter the hours and minutes a student has been present in the meeting. The hours absent are calculated, based on the expected hours. Data is entered at the hour level and minute level.
- **Present/Absent** — Attendance is entered on a *Yes/No* basis. It is assumed that the student has been present (or absent) for all of the expected time, unless the faculty member enters information that indicates otherwise.

The **Absence Notified** indicator allows the faculty member to mark a student as absent and to enter comments for the absence. This type of absence can be specified for a single meeting day or a range of dates. This creates the absence information for the student for the specific day or the date range, updating the **Absence Notified** indicator and inserting any notes into the **Notes** field for each section meeting.

The calculation of the percentage is again controlled by the `NOTIFYABS` and `CLASSCANCL` rules on **GTVSDAX**.

Attendance tracking data already in use with the European Solution Center Banner 8.x software can be migrated to the Banner 9.x attendance tracking tables. This is done using Mass Data Update Utility (MDUU) processes that are delivered with this enhancement.

It is important to remember the following when using attendance tracking:

- No section or meeting information can be changed. Only attendance information can be entered or updated.
- Absence information does not impact leave of absence information used for study paths or on the general student record (SGBSTDN).

## Meeting rules

Meeting rules are evaluated using the data in the `SORATRK` and `SORATMT` tables.

### About this task

When a rule exists in `SORATMT` for the CRN and meeting combination, it applies to the student and the faculty member. When a rule does not exist in `SORATMT` for the CRN and meeting combination, then the rules in `SORATRK` are evaluated for the student and faculty member. When no applicable rule exists in either table, the CRN and meeting are not displayed.

**Note:** It is anticipated that rules will be set up as generically as possible. This will simplify rule creation and user understanding of the rules.

Here is the rule hierarchy used to determine the appropriate rule for a class. After a condition has been met, that rule is used, and no further rules are examined.

### Procedure

1. When the term and CRN combination matches a rule in **Attendance Tracking Meeting Rule Setup Page (SOAATMT)**, that rule is used.
2. Otherwise, the rules on **Attendance Tracking Rule Setup Page (SOAATRK)** are examined in this order.
  - a) When the term and CRN combination matches a rule, that rule is used.

- b) When the term and course number combination matches a rule, that rule is used.
- c) When the term and subject combination matches, that rule is used.
- d) When the term and part of term combination matches, that rule is used.
- e) When only the term matches, that rule is used.

After the appropriate rule has been identified for a class, here is how it is evaluated.

3. When the **Display Class** indicator on **Attendance Tracking Rule Setup Page (SOATRК)** or **Attendance Tracking Meeting Rule Setup Page (SOAATMT)** (SORAT<sub>xx</sub>\_TRACK\_ATTEND\_IND) is set to N, then no one can view the class/meeting.
4. When the **Display Class** indicator on **Attendance Tracking Meeting Rule Setup Page (SOAATMT)** or **Attendance Tracking Rule Setup Page (SOATRК)** (SORAT<sub>xx</sub>\_TRACK\_ATTEND\_IND) is set to Y, the following is evaluated.
  - a) When the **Track Class Attendance** indicator on **Attendance Tracking Meeting Rule Setup Page (SOAATMT)** or **Attendance Tracking Rule Setup Page (SOATRК)** (SORAT<sub>xx</sub>\_ATTEND\_ENTER\_IND) is set to N, both faculty members and students can view the class/meeting.
  - b) When the **Track Class Attendance** indicator on **Attendance Tracking Meeting Rule Setup Page (SOAATMT)** or **Attendance Tracking Rule Setup Page (SOATRК)** (SORAT<sub>xx</sub>\_ATTEND\_ENTER\_IND) is set to Y, the following is true.
    - When today's date is in the date range, faculty members can view and update the class/meeting, and students can view the class/meeting.
    - Otherwise, faculty members and students can only view the class/meeting.

## Results

Here are sample combinations of rules and results based on settings of the **Track Class Attendance** indicator and the **Display Class** indicator (which activates the rule for entering attendance).

	Display Class is N		Display Class is Y	
	Track Class Attendance is N	Track Class Attendance is Y	Track Class Attendance is N	Track Class Attendance is Y
<i>Today is less than the start date</i>	Faculty – No view or update Student – No view or update	NA	Faculty – View only Student – View only	Faculty – View only Student – View only
<i>Today is equal to the start date</i>	Faculty – No view or update Student – No view or update	NA	Faculty – View only Student – View only	Faculty – Update allowed Student – View only

	Display Class is N		Display Class is Y	
<i>Today is between the start and end dates</i>	Faculty – No view or update Student – No view or update	NA	Faculty – View only Student – View only	Faculty – Update allowed Student – View only
<i>Today is equal to the end date</i>	Faculty – No view or update Student – No view or update	NA	Faculty – View only Student – View only	Faculty – View only Student – View only
<i>Today is greater than the end date</i>	Faculty – No view or update Student – No view or update	NA	Faculty – View only Student – View only	Faculty – View only Student – View only

## View roster

A faculty member can view the roster of a class before the first meeting day, if the rules allow this.

In this case, the **Take Roll** button (used for update mode) will be relabeled **View Students** (used for view mode). The roster that is displayed shows the student information but does not allow any updates.

## Exclusion dates

The dates set up on the **Schedule Exclusion Rules Page (SSAEXCL)** for the calendar year and part of term are used with attendance tracking to exclude classes from meeting information for holidays, in-service days, and so on.

These dates/days are not counted in the number of section meetings for a class when attendance tracking records are created and are not considered in processing for the student's attendance percentage.

## Meeting start and end dates

When changes are made to start and end dates or both for a meeting on the SSASECT page (SSRMEET table), this has an impact on the availability of the days displayed in the Attendance Tracking application.

For example, if a meeting start date is changed to no longer include days where attendance has been taken, those attendance records will not be displayed. When an end date is changed to an earlier date, the result may be that associated attendance records are no longer available. The attendance data still exists, but it is not included in the data display.

If this situation occurs, the meeting start and end dates should be adjusted to include the relevant attendance information.

## Expected hours

Faculty members may need to record attendance for sections that do not have regular meeting days or times in SSASECT/SSRMEET, such as an individual study session or a music lesson.

Sections could have only meeting days defined, but no associated meeting time. Sections could also have no meeting days or meeting time defined.

When the attendance mode used on the **Mark Attendance** page in Attendance Tracking is for Hours Present or Hours Absent (based on the setting of the **Tracking Unit** field), and the attendance hours are entered for the first time, the **Expected Hours** value defaults to the **Attended Hours** field in the Student Details tab. The **Attended Hours** field and the **Expected Hours** field can be updated.

When the attendance mode used on the **Mark Attendance** page in Attendance Tracking is for Present/Absent (**Yes** or **No**), and the student is marked as present for the first time, the user is prompted to enter the expected hours. When the value for the **Expected Hours** has been entered, the value defaults to the **Attended Hours** field. The **Attended Hours** field and the **Expected Hours** field can be updated. The value entered for the expected hours must be greater than or equal to the value for the attended hours.

The settings in the **Update Empty Records to Present** pulldown field for **Update Empty Records to Present**, **Update Empty Records to Absent**, **Mark all Present**, or **Mark All Absent** are not displayed when expected hours are to be entered. The **Cancel this Class Meeting** setting of the **Class** pulldown field is also not displayed. The **Update CRN Last Date of Attendance** and **Update CRN Total Hours** settings of the **Class** pulldown field can be used.

## Security

Attendance Tracking processing follows all established Banner security rules and setup. You do not need to adjust existing security settings at your institution that are used with other areas of Banner Faculty and Advisor Self-Service.

Refer to the 'Faculty Load' chapter in the *Banner Student User Guide* or the 'Application Overview' chapter in the *Banner Faculty and Advisor Self-Service User Guide* for more information on using faculty security.

Process codes on the **Process Control Code Validation Page (STVPROC)** are used on the **Faculty/Advisor Process Rules Page (SOAFACS)** with the Attendance Tracking application:

Process codes	Usage	Remarks
DISPLAYATTEND	For advisor use.	This process has been added in preparation for a future release. Advisors cannot currently access attendance tracking information.

Process codes	Usage	Remarks
DISPLAYATTEND	For faculty use.	This process is available except for the <b>PIN Control, Relationship, and Attribute Type Checking</b> indicators, which are set to <code>unchecked</code> or <code>No</code> .
ENTERATTEND	For faculty use.	This process is available except for the <b>PIN Control, Relationship, and Attribute Type Checking</b> indicators, which are set to <code>unchecked</code> or <code>No</code> .

Refer to the section [Setup quick reference](#) on page 69 for information on the **Process Control Code Validation Page (STVPROC)** and the **Faculty/Advisor Process Rules Page (SOAFACS)** for these process codes and associated settings.

## Info Text (GUAINFO)

The following Info Text content can be configured at your institution using the GUAINFO 9.x page that updates the Information Text Table (GURINFO) in Banner 9.x. Records include page name, label, and sequence number. Records are delivered for the Terms of Usage page.

When Banner Administrative Pages 9.x is not installed, SQL scripts can be used to configure the Info Text.

**Note:** Info Text may be configured by locale and can be configured to display only during a specified time period, by populating the GURINFO\_START\_DATE and GURINFO\_END\_DATE columns for an item.

## Information Text Editor Page (GUAINFO)

The following message data element is used with the **Terms of Usage** page. This message is delivered for the Information Text Editor Page (GUAINFO) and can be changed at your institution.

**Note:** Data for GUAINFO is delivered in a seed data script.

Page Name	Message Label	Source Ind	Audience	Locale	Seq No	Text Type	Message
TERMS OF USAGE	TERMS OF USAGE	Baseline	default or student	en_US	1	Normal	This area contains secure information. Unless otherwise noted, any information you enter or change will become effective immediately. You are responsible for any changes made using your ID. Please do

Page Name	Message Label	Source Ind	Audience	Locale	Seq No	Text Type	Message
							not share your ID or PIN with others.
TERMS OF USAGE	TERMS OF USAGE	Baseline	default or student	en_US	2	Normal	If you agree to the terms of usage, continue. If you do not, please exit.

## Create a local text message

To create a local text message, the baseline text record must exist. The baseline record can be copied to a local record. The local record can then be updated to include the modified text and the start and the end dates (for the display of the text).

Each informational message can have a baseline record and local record for each audience and locale combination. For example, a baseline record and a local record can exist for each combination of Student/English, Student/Spanish, Faculty/English, Faculty/Spanish, etc.

## GTVSDAX rules

The following **GTVSDAX** rules are used with attendance tracking. All rules use the **Internal Code Group** of `SS ATTENDANCE`. Any changes that are made will take effect the next time a user logs in.

**Note:** The following GTVSDAX rules for Attendance Tracking are no longer in use as of Banner Student Self-Service 9.5 and Attendance Tracking 9.3:

- DETNAMEFMT
- FACNAMEFMT
- LSTNAMEFMT

These rules are only relevant for Attendance Tracking 9.2 and prior.

### ATTDATEUPD rule

The `ATTDATEUPD` rule is used to allow the update of the last date of attendance data in Banner Faculty Grade Entry. Values are `UPDATE`, `UPDATE_NULL` (Update if Null), `NO_UPDATE`, `UPDATE_ALL`, `UPDATE_ALL_FORC`, or `UPDATE_FORCIBLY`. The default is `UPDATE`.

Refer to the section [Last date of attendance and total hours](#) on page 25 for more information on using this rule and the associated values.

### ATTRAUDIT rule

The `ATTRAUDIT` rule is used to define audit mode values from the **Grading Mode Code Validation Page (STVGMOD)** that are used in attendance tracking.

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The value of `A` is delivered as the default for “audit mode”. You can change this to the code used for “audit mode” on `STVGMOD` at your site. You can also create repeating rules on **GTVSDAX** for as many audit values as you need. If no value is entered, the audit count will always be `0`.

**Note:** Banner Student Attendance Tracking uses the audit grade mode to indicate audited courses. However; some institutions use the `STVRSTS` code to indicate audited courses. When this is the case, the faculty member will not see how many students are auditing a course, and the audit count will always be displayed as `0`.

## CLASSCANCL rule

The `CLASSCANCL` rule is used to indicate whether canceled classes will be included in or excluded from the attendance percentage calculation.

Values are: `Y`, `N`, or `I`. The default is `Y`.

This rule is one of two **GTVSDAX** settings used to control the calculation of the attendance percentage in the Banner Student Attendance Tracking application. The other rule is the `NOTIFYABS` rule. The settings for the `CLASSCANCL` and `NOTIFYABS` rules are used independently of one another, based on whether a class meeting is held or canceled.

- When the `CLASSCANCL` rule is set to `Y`, the data is considered as if the class meeting was held and all students were present.
- When the `CLASSCANCL` rule is set to `N`, the data is considered as if the class meeting was held, but no one was present, including students with a notified absence on that day.
- When the `CLASSCANCL` rule is set to `I`, the data is not considered.

For details on how attendance percentage is calculated using this rule, refer to the section [Calculate attendance percentage](#) on page 39.

## CUTOFFHIGH rule

The `CUTOFFHIGH` rule is used to set the high threshold for attendance. A calculated percentage over this value will be considered a "high" attendance. The default value is `70`.

Any calculated percentage between the high and low cutoff is considered to be "medium" attendance. This distinction is used only when the student's attendance percentage is displayed in both the Faculty and Advisor Self-Service and Student Self-Service applications.

## CUTOFFLOW rule

The `CUTOFFLOW` rule is used to set the low threshold for attendance. A calculated percentage under this value will be considered a "low" attendance. The default value is `40`.

Any calculated percentage between the high and low cutoff is considered to be "medium" attendance. This distinction is used only when the student's attendance percentage is displayed in both the Faculty and Advisor Self-Service and Student Self-Service applications.

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## EMAILCANCL rule

The `EMAILCANCL` rule is used to send emails when the faculty member cancels the class meeting. Values are `Y` or `N`. The default value is `N`.

- Set this rule to `Y` to automatically generate an email message that is sent to the registered students when a class meeting is canceled.
- Set this rule to `N` to not send an email when a class meeting is canceled.

## EMAILREINS rule

The `EMAILREINS` rule is used to send emails when the faculty member reinstates a canceled class meeting. Values are `Y` or `N`. The default value is `N`.

- Set this rule to `Y` to automatically generate an email message that is sent to the registered students when a canceled class meeting is reinstated.
- Set this rule to `N` to not send an email when a canceled class meeting is reinstated.

## NOMEET rule

The `NOMEET` rule is used to include non-standard meetings in attendance tracking, so faculty members can enter attendance for meetings without specific meeting days or times, such as study sessions or music lessons. Values are `Y` or `N`. The default is `N`.

- When the `NOMEET` rule is set to `N`, only classes with specific meeting days and times on `SSASECT` are displayed (standard), assuming applicable attendance tracking rules exist.
- When the `NOMEET` rule is set to `Y`, classes without specific meeting days and times on `SSASECT` are also displayed (non-standard), assuming applicable attendance tracking rules exist.

## NOTIFYABS rule

The `NOTIFYABS` rule is used to indicate whether the notified absence will be included in or excluded from the attendance percentage calculation, when a class meeting is held, and the student has a notified absence, either a single absence or an extended absence.

Values are `Y`, `N`, or `I`. The default is `Y`.

This rule is one of two **GTVSDAX** settings used to control the calculation of the attendance percentage in the Banner Student Attendance Tracking application. The other rule is the `CLASSCANCL` rule. The settings for the `NOTIFYABS` and `CLASSCANCL` rules are used independently of one another, based on whether a class meeting is held or canceled.

- When the `NOTIFYABS` rule is set to `Y`, the data is considered as if the class meeting was held and the student was present (for a day or days with a notified absence).
- When the `NOTIFYABS` rule is set to `N`, the data is considered as if the class meeting was held, and the student was absent on the day with the notified absence.
- When the `NOTIFYABS` rule is set to `I`, the data is not considered.



For details on how attendance percentage is calculated using this rule, refer to the section [Calculate attendance percentage](#) on page 39.

## PHOTOS rule

The PHOTOS rule is used to control the display of the student's photo or a photo placeholder in Self-Service. Values are Y or N. The default is Y.

Refer to the section [Image files](#) on page 11 for more information on photo configuration.

## RECPERPAGE rule

The RECPERPAGE rule is used to control the number of records that are displayed on a page in Self-Service. The default is 20. The number entered must be greater than zero (0).

## REQABSNOTE rule

The REQABSNOTE rule is used to determine whether a note must be entered on the **Mark Attendance** page when the **Absence Notified** indicator is checked. Values are Y or N. The default is Y.

- Set this rule to Y if faculty members are required to enter a note for any absence being recorded.
- Set this rule to N if entry of a note for an absence is optional.

This applies to single and extended absences.

## TOTALHRSUP rule

The TOTALHRSUP rule is used to allow the update of the total hours data used with the last date of attendance in Banner Student Faculty Grade Entry 9.x. Values are UPDATE, UPDATE\_NULL (Update if Null), or NO\_UPDATE. The default is UPDATE.

Refer to the section [Last date of attendance and total hours](#) on page 25 for more information about using this rule and the associated values.

## Last date of attendance and total hours

The last date of attendance and total hours data used in other areas of Banner Student can be updated by attendance tracking if your institution chooses to allow this.

The **Last Attend Date** and **Total Hours** fields are not displayed in Banner Student Attendance Tracking. This information is stored in the SFRSTCR table (SFRSTCR\_LAST\_ATTEND and SFRSTCR\_ATTEND\_HR columns).

On **GTVSDAX**, use the ATTDATEUPD rule to update the last date of attendance, and the TOTALHRSUP rule to update the total hours data when attendance tracking data is submitted. The default setting is UPDATE. Here are how the settings affect the **Last Attend Date** and **Total Hours** fields.

Field	Setting	Result
Last Attend Date	UPDATE	<p>Updates the field with the most recently entered date for which a present attendance value has been recorded, <i>if</i> this date is more recent than the date that was already in the field (the existing date from SFRSTCR).</p> <p>This option only evaluates the attendance data for the currently selected meeting.</p>
	UPDATE_NULL	<p>Only updates the last date of a present attendance value if the field is Null. (The existing value from SFRSTCR is Null.)</p> <p>This setting can be used to preserve attendance information from an alternate source.</p>
	NO_UPDATE	<p>Stops any further processing for the last date of attendance data from attendance tracking. (No update of the SFRSTCR value is allowed.)</p> <p>If any further updates are needed, they must be done elsewhere.</p>
	UPDATE_ALL	<p>Updates the field with the most current (maximum) date, calculated across all present attendance records for each student for the CRN, <i>only</i> when the new value is greater than the existing SFRSTCR value.</p> <p>Specific meeting attendance records are not considered.</p> <ul style="list-style-type: none"> <li>• When the student has at least one present attendance record, the field will be updated in SFRSTCR to show the maximum attendance.</li> <li>• When the student does not have any present attendance records, SFRSTCR will not be updated for that student.</li> </ul>
	UPDATE_ALL_FORC	<p>Always updates the field with the most current (maximum) date, calculated across all present attendance records for each student for the CRN. (SFRSTCR is always updated.)</p>
	UPDATE_FORCIBLY	<p>Always updates the field for a single meeting attendance record. (SFRSTCR is always updated.)</p> <p>This option only evaluates the attendance data for the currently selected meeting.</p>

Using the UPDATE\_ALL\_FORC and UPDATE\_FORCIBLY options allows a last date of attendance to move back in time. Here is a scenario that illustrates why this may be useful:

1. A student is marked as present on Monday and Wednesday.
2. The last date of attendance is calculated and recorded as Wednesday.
3. The student's Wednesday information is corrected to the student being absent.
4. The last date of attendance is calculated again.
5. The student's last date of attendance is now set to Monday.

Use this information to determine which setting of the `ATTDATEUPD` rule is appropriate for your institution.

Rule setting	Current meeting or all meetings	Update SFRSTCR
<code>UPDATE</code>	Current	Only update SFRSTCR when new date is more recent than existing date.
<code>UPDATE_NULL</code>	Current	Only update SFRSTCR when existing date is Null.
<code>NO_UPDATE</code>	N/A	Never update SFRSTCR.
<code>UPDATE_ALL</code>	All	Only update SFRSTCR when new date is more recent than existing date.
<code>UPDATE_ALL_FORC</code>	All	Always update SFRSTCR.
<code>UPDATE_FORCIBLY</code>	Current	Always update SFRSCTR.

Field	Setting	Result
<b>Total Hours</b>	<code>UPDATE</code>	Updates the field with the latest calculated number of hours for which the student had attended, based on the attendance data entered into Banner Student Attendance Tracking.
	<code>UPDATE_NULL</code>	Only updates the total hours value if the field was Null.
	<code>NO_UPDATE</code>	Stops any further processing for the total hours data from attendance tracking. The field must be populated manually by a faculty member in Banner Student Faculty Grade Entry.

Faculty members can track attendance for the duration of the section meetings. They can choose to feed the last date of attendance and total hours data each time attendance information is entered, or they can feed the data one time at the conclusion of the section meetings. They can then proceed to enter grades in Banner Student Faculty Grade Entry. The last date of attendance data is fed to the SFRSTCR table, unless the `GRADES_ROLLED` indicator is checked.

Faculty members can only enter attendance data for dates that fall within the section meeting definition for the term and of part of term date. The total hours value is calculated based on this information.

## Application setup

Use the following instructions to set up and work with Banner Student Attendance Tracking.

### Turn attendance tracking on in Banner

Use the following steps to turn attendance tracking on for CRNs that you specify.

#### Procedure

1. Access the **Attendance Tracking Rules Setup Page (SOATR)**.
2. Enter a term in the Key block.
3. Click **Go**.
4. In the Attendance Tracking Rule section, enter the rules for the term that allow entry in Self-Service, including the tracking unit and dates.

When rules are entered for a term, a number of checks are performed to ensure that no duplicates exist based on the combination of term, part of term, subject, course number, or CRN values. Checks are also performed for unique course numbers. You cannot have a rule for a course number and a second rule for the same course number combined with a subject.

5. Verify that the **Track Class Attendance** indicator is checked.  
The default is checked.
6. Verify the start and end dates for Self-Service.  
These dates are defaulted in based on the data entered in the rule. When term data only is entered, the result is that the main term dates are defaulted in. When a part of term is entered, the part of term dates are defaulted in, and so on.
7. Save your changes.

### Turn attendance tracking off in Banner

Use the following steps to turn attendance tracking off for CRNs that you specify.

#### Procedure

1. Access the **Attendance Tracking Rules Setup Page (SOATR)**.
2. Enter a term in the Key block.
3. Click **Go**.

4. In the Attendance Tracking Rule section, clear the **Track Class Attendance** indicator check box for the rule that is no longer used.
5. Save your changes.

## Create attendance tracking meeting rules

Use the following steps to define attendance tracking meeting rules for CRNs.

### Procedure

1. Access the **Attendance Tracking Meeting Rule Setup Page (SOAATMT)**.
2. Enter the term and CRN for the rule in the Key block.
3. Click **Go**.
4. Select the section meeting session for which you want to create a rule.
5. In the Attendance Tracking Meeting Rule section, enter the rule for the meeting session selected in the previous step, including the tracking unit and dates.
6. Verify that the **Track Class Attendance** indicator is checked.  
The default is checked.
7. Verify the start and end dates for Self-Service.  
These dates are defaulted in based on the section meeting dates.
8. Save your changes.

## Enter attendance and absence information for a CRN in Attendance Tracking

This procedure explains how to enter attendance information for a CRN using the **Faculty Attendance Tracking Page** and the **Mark Attendance Page**.

### About this task

Records on the **Faculty Attendance Tracking** page are listed in numeric order by CRN and term order. There is a separate row for each student for each CRN/meeting.

Use the following steps to enter and view attendance and absence information.

### Procedure

1. Log in to Attendance Tracking.
2. When the **Faculty Attendance Tracking** page is displayed, a list of available CRNs and meetings is displayed for the faculty member.
3. Use the search box to locate a meeting.  
You can enter:
  - a partial or complete term code

- a partial or complete CRN
- a partial or complete subject
- a partial or complete course title

The display can be sorted on these columns:

- Term
  - CRN
  - Subject
  - Course
  - Section
  - Title
4. Select a CRN and meeting, and view the course details in the **Course Details** tab.  
Details are displayed for the course, students, and staff.
  5. Select **Take Roll** to access the **Mark Attendance** page for the CRN and meeting.  
The active date will be for the most recent class meeting.
  6. Scroll through the class dates to view attendance and absence information for section meetings.  
The active date will be for the most recent class meeting.
  7. Use the search box to locate a student.  
You can enter:
    - a partial or complete ID
    - a partial or complete nameThe display can be sorted on these columns:
    - Name
    - ID
    - Attendance Percentage
  8. Perform actions that affect the entire class roster.
    - a) Use the **Class** pulldown field to cancel the specific class meeting, update the last date of attendance, or update the total hours.
    - b) Use the **Update Empty Records to Present** pulldown field to designate all students in the CRN as present or absent or to update empty records to present or absent.
    - c) Select the **Tools** menu, and export the roster and attendance information.
    - d) Select the **Tools** menu, and import the roster and updated attendance information.
  9. Perform actions that affect a single student for the chosen date.
    - a) Select a student record to view attendance details in the Student Details tab.
    - b) When the meeting rules are set up to record student information as *Present/Absent*:
      - Click on the date for the student to cycle the information from *No Attendance*, to *Present*, to *Absent*, and back to *No Attendance*.

- For the `Present` state, you can record the actual time the student was present by using the side panel.
- c) When the meeting rules are set up to record student information as `Hours Present`:
- Enter the hours and minutes that the student was present.
  - This cannot be more than the defined expected time.
- d) When the meeting rules are set to record student information as `Hours Absent`:
- Enter the hours and minutes that the student was absent.
  - This cannot be more than the defined expected time.
- e) When the meeting does not have both the days of the week or the start and end time defined, refer to the section [Expected hours](#) on page 20 for more details on how to handle this type of meeting.
- f) When the student has notified the faculty member of an expected absence, check the **Absence Notified** indicator, and enter a note.
- Depending on your configuration, the note may be required.
- g) When the student has notified the faculty member of an extended absence, click **Extended Absence** to open the **Extended Absence** window.
- Enter the start and end dates and any comments for a student's long term absence.
- Depending on your configuration, the comments may be required.
- Changes are saved automatically.

## View attendance information in Banner Student Self-Service

Students can view a summary of their attendance using the **Student Attendance Tracking Page**. The system displays all attendance records for courses (CRNs and meetings) for a student, subject to the rules that are in effect.

### About this task

Use the following steps to view attendance information.

### Procedure

1. Log in to Attendance Tracking.
2. On the **Student Attendance Tracking** page, view the information for each CRN and meeting, including the attendance percentage.
3. Select a CRN and meeting and use the Course Details tab and the Absence Details tab to see more information for that record.

## Set up Update Grade Book from Attendance Tracking

The Update Attendance in Grade Book functionality provides faculty with the option to update their grade books in Faculty Grade Entry with data from Attendance Tracking. This allows faculty to use a student's attendance record as a component of their grade.

### Procedure

1. **Note:** To use this feature, you will also need to have Faculty Grade Entry 9.3 (or later) installed.

Set up the `ATTENDANCE_TRACKING` process and the `ATTR_UPDATE_GRADEBOOK` rule on the **Business Rules (GORRSQL)** page.

- Seed data was included with the initial release of this functionality to provide examples entries on **GORRSQL**.
  - Based on the **GORRSQL** value for a student, the grade will be calculated using the applicable grade scale. If the grade cannot be calculated, the grade field will be left blank while the other fields are updated.
  - The percentage is calculated based on the **out of** value for the component.
  - Your calculated value must fall within the ranges defined on the grade scale of the class.
  - **GORRSQL** evaluates rules in sequence number order. The lowest sequenced rule is the highest priority.
  - There can be rows in the **Student Attendance (SORSATR)** table for a future date. These could be inserted as a result of an extended absence having been entered for a student. Your institution will need to decide if you want to include these records in your calculation.
  - Your institution may also decide to include calculations for the **NOTIFYABS** and **CLASCANCL** options on the **Crosswalk Validation (GTVSDAX)** page. The provided seed data does not consider these settings.
  - It is possible to exempt meetings of a class from attendance tracking by setting up rules on **SOAATMT**. Doing this may impact your calculations.
  - This functionality uses a different calculation for attendance than the **Cumulative Attendance Details** field. If you want the number sent to grade book to match the number being displayed, you must make the two **GORRSQL** rules the same.
2. Use the **Grade Book Control (SHAEGBC)** page to set the open and close dates for assessment and reassessment for the term and CRN by term, part of term, or section.
  3. Use the **Gradable Component Definition (SHAGCOM)** page to create a component named `ATTRGRD`. You should create this for the term and CRN that you want to update in the Grade Book with attendance data. (The component must be named `ATTRGRD` in order for the update to work). The **Must Pass** and **Weight** fields must be set appropriately for the class. See the *Update Grade Book from Attendance Tracking* appendix for examples of the impact of the must pass and weight settings.
  4. Use **Grade Change Code Validation (STVGCHG)** page to associate at least one grade change reason with the **CA** (Calculated EGB) grade change attribute. If your institution is using the Electronic Grade Book, this is already set up.



When the *ATTRGRD* component is updated, either for the first time or any subsequent update, the system will use the **Grade Change Reason** code associated with the *CA* (Calculated EGB) attribute. The application will re-use this code and will ignore the **Permit Duplicates** setting on **STVGCHG**.

5. Change the value of the **ENABLE.GRADEBOOK.UPDATE** setting for the *ATTENDANCE\_TRACKING* process on the **Integration Configuration Settings (GORICCR)** page to *Y* to enable the Update Grade Book functionality.

## Update Grade Book from Attendance Tracking

When the functionality is enabled through the Student Administrative pages, you can update your Grade Book with data from Attendance Tracking through the **Update Attendance in Grade Book** feature.

### Procedure

1. In Faculty Attendance Tracking on the **Course List** page, click **Take Roll** for the CRN that you want to update.
2. Select **Class > Update Attendance in Grade Book**.  
The percentage in the **Attendance** column is updated for each student.

## Update Grade Book Attendance Tracking Troubleshooting

If your Grade Book did not update with the data from Attendance Tracking, here are some possible reasons and solutions.

**Note:** Detailed feedback is not available with the Update Attendance in Grade Book functionality. If you update the *ATTRGRD* component on the Grade Book page, you will get detailed feedback.

The following are reasons why an update may not have occurred.

- The student's grade has already been rolled to Academic History and re-assessment is not open.
- The student's grade has not been rolled to Academic History and assessment is not open.
- The student is no longer an actively registered student. For example, a student who has withdrawn part-way through the term may still be visible in the Attendance Tracking class roster but will not be in the Grade Book class roster; this student will not have a Grade Book component updated.
- The generated summary field in the *SHRMRKS* table has reached maximum size.

These are error messages you may encounter and their possible causes.

Message	Probable cause
Grade component does not exist.	The class doesn't have a gradebook component named <i>ATTRGRD</i> . Enter this for the term and CRN on <b>SHAGCOM</b> .

Message	Probable cause
Percentage calculation not defined.	There is no active <b>GORRSQL</b> rule for this (where the <b>Process</b> equals <i>ATTENDANCE_TRACKING</i> and the <b>Rule</b> equals <i>ATTR_UPDATE_GRADEBOOK</i> ).
Grade change reason not defined.	There must be a grade change reason with an attribute of <i>CA</i> on <b>STVGCHG</b> .
Component not open for grading.	Either assessment or reassessment dates must be open as defined on <b>SHAEGBC</b> .
Gradebook not available at this time.	The term and CRN must be defined on <b>SHAEGBC</b> .

## Set up student card

Contact cards for students are available from the **Mark Attendance** page. They are accessed by hovering over the student's name. The cards display student contact information such as name, major, program, email address, phone number, and address, and also a photo if one is provided.

### About this task

This functionality is only available if the Banner Student Student Advising Student Profile application has been installed and configured, and the appropriate process rule settings have been established on the **Faculty/Advisor Process Rules Page (SOAFACS)**.

You can choose to not display the student card. In this case when the user clicks on the link, the card will still be displayed, but it will not contain student information. A message is displayed instead indicating that the student information is not available.

**Note:** When the student card is configured, and card display is permitted in multiple Banner 9.x applications, be sure each application is configured consistently for the role.

Do the following to set up to ensure contact information displays on the student card.

### Procedure

1. Verify that the student has a person record on the **General Person Identification Page (SPAIDEN)**.
2. Verify that the student is not designated as confidential or deceased on the **General Person Page (SPAPERS)**.
3. Verify that the student has a general student record on the **General Student Page (SGASTDN)** and therefore a curriculum record as well.
4. Set up the email address information on the **E-mail Address Page (GOAEMAL)** and indicate that the email is the preferred address, is active, and should be displayed on the Web.
5. Verify that campus address and campus phone directory item codes exist on the **Directory Item Validation Page (GTVDIRO)**.
  - a) Verify that the directory item code of `ADDR_CP` for campus address exists on **GTVDIRO**.

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- b) Verify that the directory item code of `TELE_CP` for campus telephone exists on **GTVDIRO**.
  6. Verify that the student has an address record on **SPAIDEN**.
  7. Verify that the student has a telephone record on **SPAIDEN**.
  8. Set up the campus address display options using directory rules on the **Directory Options Rules Page (GOADIRO)**.
    - a) Verify that the directory item code of `ADDR_CP` exists on **GOADIRO**.
    - b) Set up the campus address type and priority using directory rules on **GOADIRO** under the directory item code of `ADDR_CP`.
    - c) Set the address type on **SPAIDEN** equal to the address type for the `ADDR_CP` rule on **GOADIRO**.
  9. Set up the campus phone display options using directory rules on the **Directory Options Rules Page (GOADIRO)**.
    - a) Verify that the directory item code of `TELE_CP` exists on **GOADIRO**.
    - b) Set up the campus phone number type and priority using directory rules on **GOADIRO** under the directory item code of `TELE_CP`.
    - c) Set the telephone type on **SPAIDEN** equal to the telephone type for the `TELE_CP` rule on **GOADIRO**.
  10. Configure the display of the card information in the `FacultyAttendanceTrackingSsb_configuration.groovy` file for name, curriculum (program or major), address, phone number, and email address.
  11. Configure the display of student photos.
 

The image folder location must be specified in the `banner_configuration` file for the `banner.picturesPath`. A default image is delivered and should be placed in this folder for use when a student image is not available for display.

    - a) Set the `PHOTOS` rule on **GTVSDAX** to `Y` to display photos.
    - b) You can also use the `banner.defaultPhoto` property to point at a photo you want use and where you want to use it.

Refer to the *Banner Student Attendance Tracking Installation Guide* for information on how to add and display photos.

## Set up email generation for canceled/reinstated class meetings

Use the following steps to set up the automatically generated email to registered students when a faculty member cancels or reinstates a class meeting.

### Procedure

1. Access the **Letter Code Validation Page (GTVLETR)** and verify that the following letter codes are available.
  - `ATTR_CANCEL`
  - `ATTR_UNCANCEL`

2. Access the **HTML Letter Rules Page (SOAELTL)** and verify that the following letter code rules are available for the Student module.
  - ATTR\_CANCEL
  - ATTR\_UNCANCEL
3. Access the **Format HTML Letter Rules Page (SOAELTR)** and verify that the set of email letter codes and email text items are available for emails sent to cancel and reinstate a class meeting.
4. Access the **Crosswalk Validation Page (GTVSDAX)** and set the EMAILCANCL rule to Y.  
This will automatically generate an email message that is sent to the registered students when a class meeting is canceled.
5. Access the **Crosswalk Validation Page (GTVSDAX)** and set the EMAILREINS rule to Y.  
This will automatically generate an email message that is sent to the registered students when a canceled class meeting is reinstated.

## Functionality for defining name formats

The Banner General 8.8.5 release provides the foundation of a new approach to formatting names. Attendance Tracking 9.3 can now build on this foundation.

More information about setting up the name formatting can be found in the General release documentation.

As a brief overview, the new functionality allows for a hierarchy of name formats (called 'usage rules') to be supplied. The formatting rules will be examined from the most specific to the most general, stopping when it is possible to format the name.

In Attendance Tracking 9.3 and the Attendance Tracking page in Student Self-Service 9.5, the name is displayed in multiple places:

- Within **Faculty Attendance Tracking Self Service** pages  
Course List, Mark Attendance page, the Side Panel (Attendance Details, Course Information, and Student Detail sections), student contact card and the header.
- Within **Student Attendance Tracking Self Service** pages  
Side Panel (Course Information section), Course Details Card, Class Details card and the header.

In both cases, the name of the person logged in will be shown in the header.

If no relevant formatting has been defined for a particular section, any formatting specified for the page itself will be examined. If there is no relevant formatting at the page level, the Attendance Tracking application will be looked at. If this level does not supply a usable name format for the person, the information for the Student module is looked at next.

The penultimate information is for anything specified in the hierarchy for the **\*\*SYSTEM\_DEFAULT**. The final place that is checked for a viable format is not in the hierarchy table, but it is the **DEFAULT** specified in the formatting rules. The name in the header cannot be explicitly formatted; it will follow the rules set up for the product and application. If necessary, the hierarchy will be traversed looking for the relevant usage.

Seed data will be delivered to populate the minimum rows for Attendance Tracking 9.3 and the Student Attendance Tracking page within Student Self-Service 9.5. Institutions must definitely review these rows and adjust them as desired, ensuring that the values specified are not changed for the Product, Application, Page, or Section names. These values have to remain the same as in the script.

The following table contains the seed data delivered on the Name Display form for this release.

<b>Product</b>	<b>Application</b>	<b>Page</b>	<b>Section</b>
Student	Faculty Attendance Tracking	Course List	
Student	Faculty Attendance Tracking	Mark Attendance	
Student	Faculty Attendance Tracking	Side Panel	Attendance Details
Student	Faculty Attendance Tracking	Side Panel	Course Information
Student	Faculty Attendance Tracking	Side Panel	Student Details
Student	Faculty Attendance Tracking	Student Contact card	
Student	Faculty Attendance Tracking		
Student	Student Self-Service	Attendance Tracking	Side Panel
Student	Student Self-Service	Landing Page	
Student	Student Self-Service		

## Set up attendance thresholds

Use the following steps to set the attendance threshold high and low values for a class meeting.

### Procedure

1. Access the **Crosswalk Validation Page (GTVSDAX)**.
2. Set the `CUTOFFHIGH` rule to the number for high attendance.  
The default is 70.
3. Set the `CUTOFFLOW` rule to the number for low attendance.  
The default is 40.

## Results

Any calculated percentage between the high and low cutoff is considered to be "medium" attendance. This distinction is used only when the student's attendance percentage is displayed in both the Faculty and Advisor Self-Service and Student Self-Service applications.

Attendance percentage	Display characteristic in Faculty application	Display characteristic in Student application
High	green box around number	green number
Medium	purple box around number	yellow number
Low	orange box around number with exclamation point	red number

## Set up attendance cumulative percentage calculation

Attendance cumulative percentage calculation information is displayed in the **Attendance** tab on the **Mark Attendance** page in Faculty and Advisor Self-Service and on the **Student Attendance Tracking** page in Student Self-Service.

### About this task

Perform the following steps to set up attendance cumulative percentage calculation processing.

### Procedure

1. Access the **Business Rule Process Code Validation Page (GTVSQPR)** and verify that the `ATTENDANCE_TRACKING` business rule process code is available.
2. Access the **Business Rule Code Validation Page (GTVSQRU)** and verify that the `ATTR_CUMULATIVE_STATISTIC_RULE` business rule code is available.
3. Access the **Business Rules Page (GORRSQL)** and verify that the `ATTR_CUMULATIVE_STATISTIC_RULE` business rule is available for the `ATTENDANCE_TRACKING` process.
4. Access the **Business Rule Process Parameters Form (GORSQPA)** and verify that the following parameters exist for the `ATTENDANCE_TRACKING` process.
  - `STUDENT_PIDM`
  - `TERM_CODE`
  - `CRN`
  - `MEETING_CODE`
  - `SESSION_ID`
5. Enter the SQL for your institution's calculation.

## Calculate attendance percentage

The Attendance Tracking pages dynamically calculate an Attendance Percentage for each student for each class meeting. This is displayed to both the student and the faculty member. There are a number of considerations that make up this calculation.

In the **GTVSDAX** page, there is a `CLASSCANCL` rule which is used to indicate how canceled classes are considered.

- When the `CLASSCANCL` rule is set to **Y**, the data is considered as if the class meeting was held and all students were present.
- When the `CLASSCANCL` rule is set to **N**, the data is considered as if the class meeting was held but no one was present, including students with a notified absence on that day.
- When the `CLASSCANCL` rule is set to **I**, the data is considered as if the class meeting was not held.

In the **GTVSDAX** page, there is a `NOTIFYABS` rule which is used to indicate how notified absences are considered; this is for both a single absence and an extended absence.

- When the `NOTIFYABS` rule is set to **Y**, the data is considered as if the class meeting was held and the student was present (for a day or days with a notified absence).
- When the `NOTIFYABS` rule is set to **N**, the data is considered as if the class meeting was held and the student was absent on the day with the notified absence.
- When the `NOTIFYABS` rule is set to **I**, the data is considered as if the class meeting was not held.

The settings for the `NOTIFYABS` and `CLASSCANCL` rules are used independently of one another, based on whether a class meeting is held or canceled.

The basic calculation for any particular attendance percentage is:

- Look at the attendance records for the student's class meeting (the `SORSATR` table)
- Based on the current settings of the `CLASSCANCL` and `NOTIFYABS`, for each record:
  - Accumulate the expected time (in minutes) as appropriate
  - Accumulate the actual time (in minutes) as appropriate
- Use these two accumulations to calculate the percentage:  $\text{Attendance percentage} = \text{actual} / \text{expected} * 100$

Here's a very simple example showing the impact of these **GTVSDAX** settings on the calculation:

The student has one notified absence and one meeting canceled. In the table below, the first line will show what each recorded attendance will be considered as, with the notified absence meeting first and the canceled class second. The codes used are:

- `P` means consider as Present
- `A` means consider as Absent
- `<null>` means ignore

The second line will give a simplified calculation of the percentage.

	Class cancel = Y	Class cancel = N	Class cancel = I
NOTIFYABS = Y	(P, P) 2 out of 2 present – 100 percent	(P, A) 1 out of 2 present – 50 percent	(P, <null>) 1 out of 1 present – 100 percent
NOTIFYABS = N	(A, P) 1 out of 2 present – 50 percent	(A, A) 0 out of 2 present – 0 percent	(A, <null>) 0 out of 1 present – 0 percent
NOTIFYABS = I	(<null>, P) 1 out of 1 present – 100 percent	(<null>, A) 0 out of 1 present – 0 percent	(<null>, <null>) 0 out of 0 present – 0 percent

## Google analytics

Google analytics can be enabled in the application to allow tracking of the pages.

To do this, you must create a Google Analytics tracking account, and make changes to the application specific configuration file. Institutions can track their own analytics and allow Ellucian to track analytics for their pages.

**Note:** By default, if there is no configuration file, Ellucian tracking will be enabled, and Ellucian will track analytics.

## Theme editor

The Theme editor is a tool that allows for the creation of themes containing the institution's colors and logo for Banner Self-Service applications.

Themes are created one time and apply across the application. For detailed information on how to install and create themes using the Theme editor, see the *Banner Extensibility Theme Editor Installation Guide 9.0*.



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## Data Extract, Load, Export, and Import

This chapter contains information on using extracts of data, and loading, exporting, and importing them.

- Using Banner Data Extract
- Exporting attendance data
- Importing attendance data
- Loading external data

### Using Banner Data Extract

You can extract data from the Attendance Tracking administrative pages to a spreadsheet. Extracted data can be saved to a file with a `.xls` extension. In a spreadsheet, you can easily make graphs and reports for the data.

On some pages, you have the option to extract detail data from the current section either with or without data from the Key block included. The **Data Extract Option** field on GUAOBS determines which extract option is available for a page or if data extract is not available for the page.

Please refer to the *Banner 9.x Getting Started Guide* for more information on using data extract.

### Perform a data extract

To perform a data extract, complete the following steps.

#### Procedure

1. Access the Banner administrative page.
2. If applicable, display the desired records on the page.
3. Click **Data Extract**.
4. Select the following option from the **Data Extract** window:  
Excel Spreadsheet (.xls)
5. Click **Next**.
6. Select that data that you would like to extract.
7. Click **Next**.
8. Click **Download or view the file**.
9. Open the file using an application on your computer, or save the file for future use.
10. Click **OK**.

---

## Export attendance data

Attendance data from the **Mark Attendance** page in Banner Faculty and Advisor Self-Service can be exported into a spreadsheet using the options on the Tools Menu. A wizard is provided to step you through the process.

### About this task

**Note:** This functionality is only available on a desktop machine and is not available on a tablet or mobile device.

Exported files are contained in spreadsheets that use the `.xls` or `.xlsx` format. Files are display only but can be saved and renamed for edit.

Use the following steps to export attendance data into an Excel spreadsheet:

### Procedure

1. Access the **Mark Attendance** page.
2. Select **Export Template** from the Tools menu.
3. Follow the steps for the **Export Attendance Data** wizard.
  - a) Select the export file type as `Excel spreadsheet (.xls)` or `Excel spreadsheet (.xlsx)`.
  - b) Select a specific student record or all students in the class.
  - c) Select a specific meeting day, all displayed meeting days, or all meeting days.
  - d) Select **Export**.
  - e) Open the file in the default application, `Microsoft Office Excel`.  
The default file name uses the term code, subject, course number, section number, and session indicator. For example, `203020_Math_316_0_01.xls`.
  - f) Save the file and download it to your desktop.
  - g) Click **OK**.
  - h) Review the data in the exported spreadsheet.
    - The file is display only. You can use **Save As** function and rename the file to create an editable copy.
    - You can change the full name of the student in the spreadsheet, but you should not change the ID.
    - Any name changes made in the spreadsheet will *not* change the student's record in Banner.

**Note:** When the export request results in many records, the export process may take some time to complete. When the process is working, the import wizard page turns dark, and a white spinning icon is displayed. Wait for the import process to finish, as clicking buttons may interrupt the process. You can click **Cancel** to stop the export process.

The speed of the export is related to the number of rows being formatted. It may be better to request fewer students and fewer days or both, depending on the class characteristics.

## Import attendance data

Attendance information can be imported into the **Mark Attendance** page in Banner Faculty and Advisor Self-Service using the options on the **Tools** Menu.

### About this task

A wizard is provided to step you through the process, including mapping columns. The data can be uploaded to the page using a recognized file type. Data in other formats must be converted to `.xls` or `.xlsx` format before being uploaded.

**Note:** This functionality is only available on a desktop machine and not available on a tablet or a mobile device.

Data is handled as follows:

- The student's Banner ID and additional fields are required to correctly map data during the import process.
- Alternate student IDs cannot be used.
- Blank data in the spreadsheet will not be imported.
- Data that is exported from the application and not changed in the spreadsheet will not be imported, as it is an exact match of existing data.
- The import is enabled only when the corresponding page is editable.
- The import data is from the first worksheet only.
- The **Attendance Indicator (Present/Absent)** should not be updated.

**Note:** It is recommended that you use the export process to export a template before importing attendance information. This will set up formatting that matches the import wizard. If you attempt to import data without doing this, the system will try to logically map the data for you, but may not produce the results you desire.

When the imported data contains many records, the import process may take some time to complete. When the process is working, the import wizard page turns dark, and a yellow progress bar displayed at the bottom of the wizard.

**Warning!** Wait for the import process to finish, as clicking buttons may interrupt the process. You can use the **Cancel** button to stop the import process.

The speed of the import is related to the number of rows in the spreadsheet and not the number of rows that will trigger an update upon import. If there is a significant number of rows that are unchanged, you can remove these from the spreadsheet before starting the import. All rows in the spreadsheet are examined and validated, even those that do not result in an update.

Use the following steps to import the class roster data from an Excel spreadsheet:

#### Procedure

1. Access the **Mark Attendance** page.
2. Select **Import** from the **Tools** menu.
3. Follow the steps for the **Import Grades** wizard.

There are five parts to the wizard: **Select**, **Preview**, **Map**, **Validate**, and **Finish**.

## Select File for Import

#### Procedure

1. Browse for a file to import.
2. Select the file.
3. Select **Open**.
4. Select **Next**.
5. View the path and filename and click **Upload**.

**Note:** While the upload is in progress, a yellow progress bar is displayed at the bottom of the wizard. The word **Preparing** is also displayed. You should wait for the progress bar to move completely across the wizard and for **Preparing** to change to **Continue** before proceeding to the next step.

## Preview File

#### Procedure

1. Select the appropriate page of the spreadsheet to import, and check the **My spreadsheet has headers** indicator if needed.

**Note:** When you perform the import, the **My spreadsheet has headers** check box is selected by default.

- Click **Go Back** to choose a different file.
  - Click **Cancel** to stop the process.
2. Select **Next**.

## Map Columns

#### Procedure

Use the pulldown lists to map the spreadsheet columns to the application columns.

- The required fields *must* be mapped to navigate to the next step.

- A green check mark is displayed at the top of the wizard for each column that has been mapped.
- Leave a column set to `Other` to not include it in the import.
- Click **Go Back** to choose a different file.
- Click **Cancel** to stop the process.
- The following fields are required.
  - Term Code
  - CRN
  - Sessions Indicator
  - Start Time
  - Student ID
  - Meeting days
  - Meeting ID
- The following fields are also required. (Map two of each):
  - Expected Hours
  - Actual Hours
  - Absent Hours

## Validate

### Procedure

1. Review the data summary to see the data that will be imported.
  - The summary lists the number of records that will be imported, the number of unchanged records that will be ignored, and the number of errors for records that will not be imported.
  - Click **Go Back** to remap the columns or view the import summary.
2. Click **Download the validation report** to view an Excel spreadsheet with the error details by record. This will only contain records with errors.

The default title for the validation report spreadsheet uses the term code, subject, course number, section number, session indicator, and “\_Validation\_Report” in the file name.

For example: `203020_Math_316_0_01.xls_Validation_Report.xls`

You can save the validation report and download it to your desktop. You can correct errors, save the document, and start the import process again using your corrected validation report. Or, you could make the changes in your original spreadsheet and begin the import process over.

3. Click **Import**.

The Notification Center displays the number of records imported successfully and saved, the number of unchanged records, and the number of records with errors that were not imported.

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## Finished – Import Complete

Click **Finished** to view the saved data that has been imported to the **Mark Attendance** page.

The validation report can also be reviewed at this time. The display will be refreshed automatically.

## Import error examples

The following are examples of errors that can occur during the import of attendance information.

### Internet Explorer script error on large import

When at the Map Columns step of the import wizard and importing a large spreadsheet of grades, a Windows Internet Explorer warning may be displayed asking -

**Stop running this script?**

**A script on this page is causing your web browser to run slowly. If it continues to run, your computer might become unresponsive.**

**Yes, No**

Click **No**, so the process will continue.

### Internal server error on large import

When at the Import step of the import wizard and importing a large spreadsheet of grades, such as 1500 records, you may receive the following message-

**Unexpected response from the server. Please reload the page.**

There is no recovery from this error. You may want to break the spreadsheet into smaller pieces and upload each one separately to prevent this error.

This error is related (as is the previous example for large import) to the number of rows in the spreadsheet, not the number of rows that will trigger an update upon import. If there is a significant number of rows that are unchanged, you may want to remove these from the spreadsheet before starting the import. All rows in the spreadsheet are examined and validated, even those that do not result in an update.

## Load external data

Data from a third-party application (such as an external attendance tracking tool) can be loaded into Banner and displayed in Banner Student Attendance Tracking 9.x. After the data is loaded, it can be modified the same way as manually entered information (using the Self-Service pages).

Data can be imported using the method described above or it can be imported using Mass Data Update Utility (MDUU). Refer to the *Banner Mass Data Update Utility Handbook* and the *Banner Mass Data Update Utility Release Guide 8.0* for more information on using this tool.

## Banner administrative pages and other Banner objects

The following Banner Student pages administrative pages are used with this application. These pages are only in Banner 9.x.

You must explicitly enable Attendance Tracking by entering configuration on one of the two following pages:

- **Attendance Tracking Rule Setup Page (SOATTRK)**
- **Attendance Tracking Meeting Rule Setup Page (SOATMT)**

### Attendance Tracking Rule Setup Page (SOATTRK)

Use the **Attendance Tracking Rule Setup Page (SOATTRK)** to define and maintain attendance tracking rules. When you save a record, the system creates an attendance tracking rule record. Enter the selected term for the rule in the Key block.

You can set up attendance tracking at different levels, such as by term, subject, course, CRN, or part of term. This allows you to define the setup at any time, without the need for post-registration setup.

When rules are entered for a term, a number of checks are performed to ensure that no duplicates exist based on the combination of term, part of term, subject, course number, or CRN values.

In addition to these regular checks (such as you cannot have two part of term rules for the same part of term), a unique check is performed for course numbers. Specifically, you cannot have a rule for a course number and a second rule for the same course number combined with a subject. For example, if you have a rule for course number “123”, you cannot also have a rule for “MATH 123”.

Use the Attendance Tracking Rule section of the page to enter the part of term, subject, course or CRN, tracking, and Self-Service data for the rule. These items are not required but can be used to specify the attendance tracking setup.

Refer to the *Banner Student Attendance Tracking Online Help* for additional details and field descriptions for this page.

### Attendance Tracking Meeting Rule Setup Page (SOATMT)

Use the **Attendance Tracking Meeting Rule Setup Page (SOATMT)** to define attendance tracking meeting rules for CRNs, if required.

This page is optional and provides a specific method of control for faculty members. When you save a record, the system creates an attendance tracking rule record for the chosen class meeting session of the CRN. Enter the selected term and CRN for the rule in the Key block.



This page allows an institution to configure attendance tracking at the meeting level. They can fine tune their meeting tracking requirements, while protecting the higher level tracking configuration set up on SOAATRK for term, part of term, subject, and course.

Use the Section Details information to view the course data for the rule. Use the Section Meetings information to view the meeting type, date, day, and time data for the rule. This data is display only.

Use the Attendance Tracking Meeting Rule section of the page to enter or display tracking and Self-Service data for the section meeting record selected in the Section Meetings information.

Refer to the *Banner Student Attendance Tracking Online Help* for additional details and field descriptions for this page.

## Other Banner objects

This section discusses the Banner tables and Banner views used with Banner Student Attendance Tracking.

### Banner tables

The following tables are used with the Banner Student Attendance Tracking administrative pages.

- Attendance Tracking Meeting Rules Table (SORATMT)  
This table is used to maintain data for attendance tracking meeting rules. The rule information is defined for course sections and associated meeting data.
- Attendance Tracking Rules Table (SORATRK)  
This table is used to maintain data for attendance tracking rules. Rules can be defined for various levels (such as term, subject, course, part of term, CRN), for whether attendance should be tracked, for the tracking method to be used, and for limitations in Banner Self-Service.
- Student Attendance Tracking Recording Table (SORSATR)  
This table is used to maintain data for details for student attendance tracking for meetings of a course section.

---

## Banner views

These Banner views are used with Attendance Tracking.

### Attendance Tracking Rule by CRN View (SOVACRN)

The Attendance Tracking Rule by CRN View (SOVACRN) provides access to the appropriate attendance tracking rule record from the SORATRK table for a given Banner course section (CRN) based on the following order of selection.

#### Procedure

1. Select the rule entry where the CRN matches the specified CRN.
2. Select the rule entry where the term, part of term (if specified), subject, and course match the specified CRN.
3. Select the rule entry where the term, part of term (if specified), and subject match the specified CRN.
4. Select the rule entry where the term and part of term match the specified CRN.
5. Select the rule entry where the term matches the specified CRN.

#### Results

The view identifies all attendance tracking rule entries that could apply to a CRN. It then assigns a rating to each rule based on the selection criteria. The rule with the highest rating is selected.

The following columns are in this view:

- SOVACRN\_SECT\_TERM\_CODE
- SOVACRN\_SECT\_CRN
- SOVACRN\_SECT\_PTRM\_CODE
- SOVACRN\_SECT\_SUBJ\_CODE
- SOVACRN\_SECT\_CRSE\_NUMB
- SOVACRN\_SURROGATE\_ID
- SOVACRN\_VERSION
- SOVACRN\_RULE\_SEQ\_NO
- SOVACRN\_RULE\_TERM\_CODE
- SOVACRN\_RULE\_PTRM\_CODE
- SOVACRN\_RULE\_SUBJ\_CODE
- SOVACRN\_RULE\_CRSE\_NUMB
- SOVACRN\_RULE\_CRN
- SOVACRN\_RULE\_TRACK\_ATTEND\_IND
- SOVACRN\_RULE\_TRACKING\_UNIT\_CDE

- SOVACRN\_RULE\_ATTEND\_ENTER\_IND
- SOVACRN\_RULE\_ENTRY\_START\_DATE
- SOVACRN\_RULE\_ENTRY\_END\_DATE
- SOVACRN\_RULE\_ACTIVITY\_DATE
- SOVACRN\_RULE\_USER\_ID
- SOVACRN\_RULE\_DATA\_ORIGIN
- SOVACRN\_SS\_ENTRY\_ALLOWED\_IND

## SVQ\_ATTENDANCE

This view is used to display student enrollment and registration status and attendance percentage by term and CRN.

The following columns are in this view:

- SSRMEET\_ROWID
- SSRMEET\_SURROGATE\_ID
- SSRMEET\_CATAGORY
- SFRSTCR\_ROWID
- SFRSTCR\_SURROGATE\_ID
- SFRSTCR\_REG\_SEQ
- SFRSTCR\_VERSION
- SFRSTCR\_PIDM
- SFRSTCR\_TERM\_CODE
- SFRSTCR\_CRN
- SFRSTCR\_LEVL\_CODE
- SFRSTCR\_PTRM\_CODE
- SFRSTCR\_RSTS\_CODE
- SFRSTCR\_RSTS\_DATE
- STVRSTS\_DESC
- SFRSTCR\_ATTEND\_HR
- SFRSTCR\_LAST\_ATTEND
- SFRSTCR\_CREDIT\_HR
- SFRSTCR\_ERROR\_FLAG
- SFRSTCR\_ADD\_DATE
- SFRSTCR\_CAMP\_CODE
- SFRSTCR\_ACTIVITY\_DATE
- SFRSTCR\_USER\_ID

- SFRSTCR\_DATA\_ORIGIN
- SFBETRM\_ESTS\_CODE
- SFBETRM\_ESTS\_DATE
- SFBETRM\_ESTS\_WD\_IND
- SFRWDRL\_WITHDRAW\_DATE
- SPRIDEN\_ID
- FORMAT\_NAME\_LSTNAMEFMT
- FORMAT\_NAME\_ETNAMEFMT
- GOREMAL\_PREFERRED\_EMAIL
- DECEASED\_IND
- CONFIDENTIAL\_IND
- NAME\_SUFFIX
- SFRENSP\_ESTS\_CODE
- SFRENSP\_ESTS\_WD\_IND
- SFRENSP\_ESTS\_DATE

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## Banner Self-Service pages

This section describes the Self-Service pages used with Banner Student Attendance Tracking.

- Introductory pages
  - **Terms of Usage** page
  - **Security Question and Answer** page
  - **Update Ethnicity and Race Survey** page
- **Banner Student Self-Service Attendance Tracking** page
- **Banner Student Attendance Tracking** pages
  - **Faculty Attendance Tracking** page
  - **Mark Attendance** page

Banner Student Self-Service also provides access to the Ellucian delivered landing page, View Grades, Class List, and Student Profile pages. Additional pages may be added in the future that will also be accessible using the menu.

## Introductory pages

The introductory pages listed below are displayed after the user logs into either Banner Student Self-Service or Banner Attendance Tracking, if the pages are set up to do so, and the user has not previously provided the requested information.

- **Terms of Usage** page
- **Security Question and Answer** page
- **Update Ethnicity and Race Survey** page

After these pages have been negotiated, the **Attendance Tracking Self-Service** pages are accessed.

## Terms of Usage

The **Terms of Usage Page** is displayed the first time you log into Self-Service and two conditions are true-

- The **Accepted** indicator is set to **No** on the **Third Party Access Audit Page (GOATPAD)**
- The **Display Usage Page** indicator is checked on the **Customize Web Rules Page** (`twbkwrul.P_ModifyPgWebRules`) in Web Tailor.

When the user selects **Continue** to accept the terms, the **Accepted** indicator is set to **Yes** on GOATPAD.

This page is the same as the Banner Web General 8.x Self-Service page, **Terms of Usage** (`twbkwbis.P_UsagePage`). The page details and setup can be found in the *Banner Web for General 8.6 User Guide* in the “Technical Reference” chapter, under the “Terms of Usage” topic.

## Security Question and Answer

The **Security Question and Answer Page** is displayed when you log in to Self-Service and the following condition is true: the **Disable “Forgot PIN”** indicator is set to `No` on the **Enterprise PIN Preferences Page (GUAPPRF)**.

The answers to the questions are stored on the **Third Party Access Audit Page (GOATPAD)**.

This page is similar to the Banner Web General 8.x Self-Service page, **Security Question and Answer** (`twbkwbis.P_SecurityQuestion`). Multiple questions are now displayed on one page, instead of answering one question per page as in 8.x. The page details and setup can be found in the *Banner Web for General 8.6 User Guide* in the “Using Web General” chapter, under the “Security Questions and Answers” topic.

## Update Race and Ethnicity Survey

The **Update Ethnicity and Race** page is displayed when you log in to Self-Service and the following conditions are true: the **Reporting Date** value is set for the `RESTARTDAT` and `REENDDATE` **GTVSDAX** rules, and the system date falls within that range.

You can click **Ask Me Later** to continue and bypass the page.

The page will be displayed each time the user logs in during the date range until the survey is completed. The survey confirmation is displayed on the **General Person Identification Page (SPAIDEN)** with the **Ethnicity and Race Confirmed** indicator checked and the **Confirmed Date** field populated.

This page is the same as the **Banner Web General 8.x Self-Service** page, **Update Ethnicity and Race Survey** (`bwgkomre.P_RaceSurvey`). The page details and the **GTVSDAX** setup can be found in the *Banner Web for General 8.6 User Guide* in the “Technical Reference” chapter, under the “Ethnicity and Race Survey Pages” topic.

External Code	Internal Code	Internal Code Group	Description	Reporting Date
NOT USED	RESTARTDAT	SSMREDATE	Race/Ethn Survey Start Date	First date the survey is to be displayed on the web
NOT USED	REENDDATE	SSMREDATE	Race/Ethn Survey End Date	Last date the survey is to be displayed on the web

## Banner Student Self-Service page

Banner Student Self-Service provides a page that allow students to view attendance tracking information.

### Student Attendance Tracking

This page is used by students to view their attendance tracking information by CRN and meeting. Course and absence details in addition to Getting Started information are displayed for the selected CRN and meeting.

This page can be accessed from Banner Self-Service 8.x when you are logged in as a student. Select the Student Services: Attendance option on the Banner Self-Service Main Menu (bmenu.P\_MainMnu).

This page is composed of the following sections:

- Student Services: Attendance
- Side Detail

The right side of the page contains the following tabs:

- Getting Started
- Course Details
- Attendance

Use the **Right Arrow** on the right side of the Select a Course section to drag and expand the view to a full page display. This hides the tabs for Course Details and Absence Details.

Use the **Left Arrow** on the right side of the Select a Course section to drag and close the full page view and return the display to the main section with the side tabs. You can also drag the scrollbar to resize the display.

### Student Services: Attendance section

This section of the page is used to display a summary of a student's attendance for a term. It displays the number of hours attended and number of hours absent for each CRN. This page is display only.

When the student accesses this section of the page, all courses which are open for attendance tracking are pushed to the student based on the specific login information.

No term or CRN is needed to get started on the page as in Banner Self-Service 8.x.

Fields	Descriptions
Term	Term code for the course record.
CRN	Course reference number.

Fields	Descriptions
Subject	Subject name and number associated with the CRN.
Course	Course number associated with the CRN.
Section	Section number associated with the course.
Title	Course title.
Schedule	<p>Days of the week the course section meets.</p> <p>Values are:</p> <ul style="list-style-type: none"> <li>• S</li> <li>• M</li> <li>• T</li> <li>• W</li> <li>• T</li> <li>• F</li> <li>• S</li> </ul> <p>The meeting days are highlighted.</p>
Time	Time the section meets each day, such as 08:00 AM.
Session	Session identifier used to designate the session of that section of the course that is scheduled to meet.
Missed	Total number of meetings from which the student was absent for the course.
Percentage	Percentage of attendance based on the hours the student attended for the section. This calculation includes the applicable <b>GTVSDAX</b> rule settings.

### Getting Started tab

The Getting Started tab is displayed at the right side of the page.

The Getting Started data is delivered Info Text that is customizable at your institution through Banner Web Tailor. The Getting Started tab can display information such as how to use Attendance Tracking and how to contact the Registrar for assistance with a link to a default email address.

You can use tabs to move between the Course Details, Attendance, and Getting Started sections of the side panel.



## Course Details tab

When a course is selected for attendance tracking from the list of courses, the Course Details information is displayed at the right side of the page.

It contains quick reference information for the course, section, CRN, campus, section dates, meetings, and instructor.

The following fields are in the Course Details tab.

Field	Description
<i>The following fields are in the Course Details section.</i>	
Course heading	Course title and number.
Term	Term code for the course.
Section	Section number for the course.
Course	Course number.
Course Reference Number	Course reference number.
Session	Session code.
Campus	Campus where the course meets.
Section Dates	Date range of the course with start and end dates.
<i>The following fields are in the Staff section.</i>	
Primary Staff	Name of primary staff member for the course who can enter attendance data.
Other Staff(s)	Name of secondary staff member for the course who can enter attendance data. Multiple secondary staff members can exist.

## Attendance tab

The Attendance tab displays specific information for the student's session attendance and absence.

**Note:** Absence information does not impact leave of absence dates on study paths or on the general student record (SGBSTDN).

The following fields are in the Attendance tab.

Field	Description
Class Name	Name of the class.
<i>The following fields are in the Session Details section.</i>	

Field	Description
Meetings Recorded	Number of times the class has met.
Meetings Absent	Number of times the student was absent.
Meetings Present	Number of times the student was present.
Meetings Canceled	Number of times the class was canceled.
Meetings Notified Absence	Number of times the student had a notified absence.
Cumulative Attendance Details	Student's attendance percentage, calculated based on logic provided by the institution.
<i>The following fields are in the Absence Details and are repeated for each recorded absence.</i>	
Date	Date the student was absent from the course.
Hours	Hours missed on that date.
Status	Status such as Absent, Canceled, Not Taken, and so on.

## Banner Faculty Attendance Tracking pages

Banner Faculty Attendance Tracking provides pages that allow faculty members to enter and check attendance tracking information.

### Faculty Attendance Tracking

This page is used by faculty members to view attendance tracking information by CRN for a student. Getting Started information and Course Details are displayed for the selected CRN. This page can be accessed from Banner Self-Service 8.x when you are logged in as a faculty member.

Select the **Attendance Tracker** option on the Banner Self-Service Main Menu (bmenu.P\_MainMnu).

This page is composed of the following sections:

- Select a Course
- Side Detail

The right side of the page contains the following tabs:

- Getting Started
- Course Details

Use the **Right Arrow** on the right side of the Select a Course section to drag and expand the view to a full page display. This hides the tabs for Course Details and Absence Details.

Use the **Left Arrow** on the right side of the Select a Course section to drag and close the full page view and return the display to the main section with the side tabs. You can also drag the scroll bar to resize the display.

## Faculty Advisor Getting Started tab

The Getting Started tab is displayed at the right side of the page.

The Getting Started data is delivered Info Text that is customizable at your institution through Banner Web Tailor. The Getting Started tab can display information such as how to use Attendance Tracking and how to contact the Registrar for assistance with a link to a default email address.

You can use tabs to move between the Course Details, Attendance, and Getting Started sections of the side panel.

## Select a Course section

This section of the page is used to display a summary of an instructor's teaching assignments for a term that are eligible for attendance tracking. This page is display only.

When the faculty member accesses this page, all courses which are open for attendance tracking are pushed to the student based on the specific login information.

No term or CRN is needed to get started on the page as in Banner Self-Service 8.x.

When the rules allow a faculty member to view the class roster before the first meeting day, the **Take Roll** button is relabeled **View Students**. The roster that is displayed shows the student information but does not allow any updates.

Fields	Descriptions
Term	Term code for the course record.
CRN	Course reference number.
Subject	Subject name and number associated with the CRN.
Course	Course number associated with the CRN.
Section	Section number associated with the course.
Title	Course title.
Schedule	Days of the week the course section meets. Values are: <ul style="list-style-type: none"> <li>• S</li> <li>• M</li> <li>• T</li> <li>• W</li> <li>• T</li> </ul>

Fields	Descriptions
	<ul style="list-style-type: none"> <li>• F</li> <li>• S</li> </ul> <p>The letters for the meeting days are highlighted.</p>
Time	Time the section meets each day, such as 08:00 AM.
Session	Session number in which the section is scheduled to meet.
Take Roll/View Students	Button used to access the Mark Attendance page either in update mode ( <b>Take Roll</b> ) or in view mode ( <b>View Students</b> ). The label changes based on the mode allowed by the rules.
Show entries	<p>Pulldown field used to select the display of records for the page.</p> <p>Choices are:</p> <ul style="list-style-type: none"> <li>• 10</li> <li>• 50</li> <li>• 100</li> <li>• 250</li> <li>• 500</li> </ul> <p>Be aware that larger numbers of records can take longer to load.</p>

### Faculty Advisor Course Details tab

When a course is selected for attendance tracking from the list of courses, the Course Details information is displayed at the right side of the page.

It contains quick reference information for the course, section, CRN, campus, section dates, meetings, registration, and instructor. This information is updated as attendance information is entered and saved.

The following fields are in the Course Details tab.

Fields	Descriptions
<i>The following fields are in the Course Details section.</i>	
Course heading	Course title and number.
Term	Term of the course.
Subject Code	Subject code of the course.
Course	Course number.
Section	Section number of the course.

<b>Fields</b>	<b>Descriptions</b>
Course Reference Number	Course reference number.
Session	Session identifier used to designate the session of that section of the course that is scheduled to meet.
Campus	Campus where the course meets.
Section Dates	Date range of the course with start and end dates.
Meeting Dates	Date range of the specific meeting of the course with start and end dates.
Meeting Occurrences	Number of times the course is scheduled to meet.  This is the total number of meetings in the date range from SSRMEET.
Meetings Transpired	Number of meetings that have already taken place.  For meetings taking place on the current day, if the current time is before the meeting start time, the meeting will not be included in the count.
Attendance Completed	Number of meetings that have occurred where records for all students have the attendance marked.
<i>The following fields are in the Students section.</i>	
Registered Students	Number of students registered for the course.  Students have an SFRSTCR record for the CRN and the term.
Current Students	Number of students currently in attendance.  Students have an SFRSTCR record for the CRN and term with a course registration status code that has the <b>Count in Enrollment</b> indicator checked on STVRSTS and set up on SFARSTS.
Auditing	Number of students auditing the course.
<i>The following fields are in the Staff section.</i>	
Primary Staff	Name of primary staff member for the course who can enter attendance data.
Other Staff(s)	Name of secondary staff member for the course who can enter attendance data. Multiple secondary staff members can exist.

## Mark Attendance

This page is used by faculty members to view or enter attendance tracking information for a student. Student records are displayed here when a student has a registration record for the section on SFRSTCR. Student Details are displayed for the selected record.

**Note:** No section or meeting information can be changed. Only attendance information can be entered or updated.

This page is accessed using the **Take Roll/View Students** button in the Select a Course section of the **Faculty Attendance Tracking** page. The button label changes depending on whether access is in update mode (**Take Roll**) or in view mode (**View Students**).

This page is composed of the following sections:

- Attendance
- Side Detail

The right side of the page contains the following tabs:

- Student Details
- Attendance

### Attendance section

Use this page to view attendance information by student. Records are displayed first for active, enrolled students, then for withdrawn students.

Students are considered as withdrawn if any of these conditions apply:

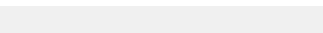
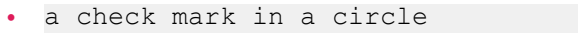
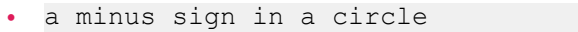
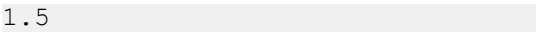


- The course registration status code for the class registration record has the **Withdrawal** indicator set on STVRSTS.
- The enrollment status code for the term has the **Withdrawal** indicator set on STVESTS.
- There is a withdrawal record on the **Student Withdrawal Page (SFAWDRL)** for the term.

When a class meeting is canceled or reinstated, an email message is sent to the students in the class with the pertinent information.

The following fields are in the Attendance section.

Fields	Descriptions
Date Search	Enter a date or use the calendar to select a date for a specific class meeting you want to work with.  The meeting closest to the chosen date will go automatically to the right. If using a language that reads right to left, it will go to the left.

Fields	Descriptions
Update All	<p>Pull-down used to perform a batch update of the all students for the specific day. All class records are updated at one time.</p> <p>Values are:</p> <ul style="list-style-type: none"> <li>• Update Empty Records to Present</li> <li>• Update Empty Records to Absent</li> <li>• Mark all Present</li> <li>• Mark All Absent</li> </ul> <p>Please note that these actions may be updating a large number of records and could take some time to complete.</p>
Class	<p>Pull-down used to cancel a specific class meeting for all students displayed on the roster, reinstate a specific class meeting that was canceled, update the CRN for the last date of attendance, or update the CRN total hours.</p> <p>Values are:</p> <ul style="list-style-type: none"> <li>• Cancel this Class Meeting</li> <li>• Update CRN Last Date of Attendance</li> <li>• Update CRN Total Hours</li> <li>• Reinstate this Class Meeting</li> </ul> <p>When a class has been canceled, the <b>Reinstate this Class Meeting</b> option is displayed and can be used to reinstate the class.</p> <p>Please note that these actions may be updating a large number of records and could take some time to complete.</p>
Photo	<p>Student photo or photo placeholder.</p> <p>The student's photo is displayed if this option is active (PHOTOS rule on <b>GTVSDAX</b> is set to Y), a photo of the student exists, and it is configured properly in the institution's file system.</p>
Full Name	<p>Student's full name, displayed in the format specified for the DETNAMEFMT rule on <b>GTVSDAX</b>.</p> <p>The student's name can be displayed as a hyperlink based on the setting of the DISPLAYPROFILE process rule on SOAFACS.</p>

Fields	Descriptions
	<ul style="list-style-type: none"> <li>When you click on the student's name, you are taken to the <b>Student Profile</b> page for that student in Banner Student Advising Student Profile. The page opens in a new window.</li> <li>When you hover over the student's name, the <b>Student Contact Card</b> is displayed, and you can click <b>View Profile</b> to access the <b>Student Profile</b> page.</li> </ul>
ID	Student's ID number.
Attendance	Student's percentage of attendance for the course meeting.
Class Date (untitled)	<p>Class date indicator displayed in the specified date format. A separate field is displayed for each date the class meets.</p> <p>This indicator is used to show that the student attended the course on a specific day. The default display is</p> <p>an empty circle </p> <p>Values are:</p> <ul style="list-style-type: none"> <li>a check mark in a circle  for attendance</li> <li>a minus sign in a circle  for absence</li> <li>a numeric value for partial attendance, such as  or  or </li> </ul> <p>When a check box is displayed for a date, you can click on it to check it and update attendance information for the student.</p> <p>When a note regarding absence exists, the minus sign in a circle has a note icon on it. You can mouse over the icon to see the absence note text.</p>



Fields	Descriptions
Per Page	<p>Pull-down used to select the display of records for the page.</p> <p>Choices are:</p> <ul style="list-style-type: none"> <li>• 10</li> <li>• 50</li> <li>• 100</li> <li>• 250</li> <li>• 500</li> </ul> <p>Be aware that larger numbers of records can take longer to load.</p>

### Student Details tab

This tab displays information related to the student's attendance and absence, including extended absences.

Select the **Absence Notified** check box to indicate that the student contacted an administrator regarding an absence from class. You can enter additional information in the Note field.

Click **Extended Absence** to open the **Extended Absence** window. Use this window to enter information about an extended absence for a student such as start and end dates and any additional comments. The start and end dates of the section must be entered manually. Dates are not validated, so be careful to enter dates that fall within the rule period.

You can save these changes or cancel out of the window. Saving the data generates a record for the student with the absence information for the specified start and end dates. The extended absence information is not stored in a separate table. When the window is closed and then reopened, the fields will be Null.

**Note:** Absence information does not impact leave of absence dates on study paths or on the general student record (SGBSTDN).

The following fields are in the Student Details tab.

Fields	Descriptions
<i>The following fields are in the Student Details section.</i>	
Student Heading	Full name of student and student photo or photo placeholder if available.
Status	Student's attendance status.
Attendance Percentage	Percentage of course meeting attended.

<b>Fields</b>	<b>Descriptions</b>
Confidential and Deceased Indicator (or both)	Confidential and Deceased messages (or both) are displayed for the student as appropriate.
<i>The following fields are in the Expected section. This section is only displayed when it is necessary for the faculty member to enter this information.</i>	
Expected Hours	Hours expected for a course by hour and minute, where the section meeting has no set day or time, such as a study session. This value defaults into the <b>Hours Attended</b> field.  Use the <b>Hr</b> and <b>Min</b> pulldown lists to select the hours and minutes.
<i>The following fields are in the Present section.</i>	
Hours Attended	Hours attended for the course by hour and minute. This displays the default hours and minutes values for the meeting, unless the data has been previously changed.  Use the <b>Hr</b> and <b>Min</b> pulldown lists to select the hours and minutes.
<i>The following fields are in the Absence section.</i>	
Absence Notified	Check box used to indicate that the student notified an administrator of the absence.
Extended Absence	Button that opens the <b>Extended Absence</b> window. You can enter information and save the changes or cancel out of the window.
<i>The following fields are in the Extended Absence window.</i>	
Start Date	Start date for period of extended absence, entered manually.
End Date	End date for period of extended absence, entered manually.
Note	Comments or details about the student's extended absence.

## Faculty Advisor Attendance tab

The Attendance tab displays specific information for the student's session attendance and absence.

**Note:** Absence information does not impact leave of absence dates on study paths or on the general student record (SGBSTDN).

The following fields are in the Attendance tab.

Fields	Descriptions
Student Name (untitled)	Name of student.
<i>The following fields are in the Session Details section.</i>	
Meetings Recorded	Number of times the class has met.
Meetings Absent	Number of times the student was absent.
Meetings Present	Number of times the student was present.
Meetings Canceled	Number of times the class was canceled.
Meetings Notified Absence	Number of times the student had a notified absence.
<i>The following fields are in the Cumulative Attendance Details section.</i>	
Overall Cumulative Attendance Percentage	Student's cumulative attendance percentage.
<i>The following fields are in the Absence Details.</i>	
Date	Date the student was absent from the course.
Hours	Hours missed on that date.
Status	Status such as Absent, Canceled, Not Taken, and so on.

## Student card

The Student card is used to view contact information about a specific student. It is accessed by hovering over the student's name.

The contact card contains the following information:

Fields	Descriptions
Student Photo	Displays a photo of the student, if available.
Confidential	Lock indicates that the student's record is confidential.
View Profile	Link to Student Profile page.
Name	Name of the student.
Major	Name of the major associated with the primary learner curriculum.
Program	Program of the primary learner curriculum for the selected term.
E-mail	Student's preferred e-mail address based on the information on the <b>E-mail Address Page</b>

Fields	Descriptions
	<b>(GOAEMAL)</b> with a link to the user's email application.
Telephone	Student's phone number according to the directory priority assigned on the <b>Directory Options Rules Page (GOADIRO)</b> for the campus telephone ( <code>TELE_CP</code> ).
Address	Student's mailing address according to the directory priority assigned on the <b>Directory Options Rules Page (GOADIRO)</b> for the campus address ( <code>ADDR_CP</code> ).

## Page heading items

The Attendance Tracking pages contains the following items at the top. Some of the items can be accessed using keyboard shortcuts.

- Institution name
- **Home** button (**Ctrl+ Home**)
- Browse pulldown (**Alt + M**)
- Tools menu (**Alt + L**)
- Username from login
- **Sign Out** button (**Ctrl + Shift + Q**)
- Notification Center (number of notifications and messages)

## Setup quick reference

This section provides setup reference information for the Self-Service pages, **GTVSDAX** rules, process control rules, attendance cumulative percentage processing, and email processing for canceling or reinstating a class meeting.

### Set up Self-Service pages

Here are the setup requirements for the **Banner Student Self-Service Attendance Tracking** page, the **Banner Faculty and Advisor Self-Service Attendance Tracking** page, and the **Banner Faculty and Advisor Self-Service Mark Attendance** page.

Item	Description
<i>These items apply to Banner Student Self-Service and Banner Faculty and Advisor Self-Service.</i>	
<b>Attendance Tracking Rule Setup Page (SOATRK)</b>	Create attendance tracking rules by term.
<b>Attendance Tracking Meeting Rule Setup Page (SOATMT)</b>	Create attendance tracking meeting rules for a specific term, CRN, and meeting.
<b>Crosswalk Validation Page (GTVSDAX)</b> – set number of records displayed	Set the <code>RECPERPAGE</code> rule to the number of records you want to display per page in Self-Service. The default is 20.
<i>The following items apply to Banner Faculty and Advisor Self-Service.</i>	
<b>HTML Letter Rules Form (SOAELTL)</b>	Set up letter rule codes for the email used to cancel and reinstate the class meeting.
<b>Format HTML Letter Rules Form (SOAELTR)</b>	Set up letter rules codes and email text for the email used to cancel and reinstate the class meeting.
<b>Faculty/Advisor Process Rules Page (SOAFACS)</b>	Set up the <code>DISPLAYATTEND</code> and the <code>ENTERATTEND</code> process rules for faculty use.  Set up the <code>DISPLAYPROFILE</code> process rule when faculty members are allowed to access the student's profile.
<b>Letter Code Validation Form (GTVLETR)</b>	Set up letter codes for the email used to cancel and reinstate the class meeting.
<b>Crosswalk Validation Page (GTVSDAX)</b> – update last date of attendance	Set the <code>ATTDATEUPD</code> rule to <code>UPDATE</code> , to update the last date of attendance with the most recently entered date for which attendance has been recorded, for the currently selected meeting.

Item	Description
	<p>Set the rule to <code>UPDATE_NULL</code> to only update the last date of attendance if the field is <code>Null</code>, to preserve attendance information from an alternate source.</p> <p>Set the rule to <code>NO_UPDATE</code> to not make changes to the last date of attendance. Further updates must be done elsewhere.</p> <p>Set the rule to <code>UPDATE_ALL</code> to always update the last date of attendance with the most current (maximum) date, calculated across all present attendance records for each student for the CRN, except when the new value is greater than the existing value. Specific meeting attendance records are not considered.</p> <p>Set the rule to <code>UPDATE_ALL_FORC</code> to always update the last date of attendance with the most current (maximum) date, calculated across all present attendance records for each student for the CRN.</p> <p>Set the rule to <code>UPDATE_FORCIBLY</code> to always update the last date of attendance for a single meeting attendance record. This option only evaluates the attendance data for the currently selected meeting.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – define audit grade mode</p>	<p>Set the <code>ATTRAUDIT</code> rule to a specific grade mode value from <code>STVGMOD</code> to be used for “audit mode” in attendance tracking. Repeating rule values can be created.</p> <p>The value of <code>A</code> is delivered as the default. If no value is entered, the audit count will always be <code>0</code>.</p> <p>Banner Student Attendance Tracking uses the audit grade mode to indicate audited courses. However; some institutions use the <code>STVRSTS</code> code to indicate audited courses. When this is the case, the faculty member will not see how many students are auditing a course, and the audit count will always be displayed as <code>0</code>.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – students pass/fail based on attendance</p>	<p>Set the <code>ATTRGRD</code> rule to <code>Y</code>, to use the attendance information from Faculty Self-Service to determine whether a student failed the course based on poor attendance, independent of the student’s grades.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – include canceled classes</p>	<p>Set the <code>CLASSCANCL</code> rule to <code>Y</code>, to include canceled classes in attendance tracking calculations.</p>

Item	Description
	<p>Set the rule to <b>N</b>, to not include canceled classes in attendance tracking.</p> <p>Set the rule to <b>I</b>, to not consider data for canceled classes in the attendance percentage calculation.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – set high attendance</p>	<p>Set the <b>CUTOFFHIGH</b> rule to the high threshold for attendance. The default is 70.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – set low attendance</p>	<p>Set the <b>CUTOFFLOW</b> rule to the low threshold for attendance. The default is 40.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – include non-standard meetings</p>	<p>Set the <b>NOMEET</b> rule to <b>N</b>, to only include standard meetings in attendance tracking. Standard meetings have specific meeting days and times on <b>SSASECT</b>.</p> <p>Set the <b>NOMEET</b> rule to <b>Y</b>, to also include non-standard meetings in attendance tracking. Non-standard meetings do not have specific meeting days and times on <b>SSASECT</b>.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – include notified absences</p>	<p>Set the <b>NOTIFYABS</b> rule to <b>Y</b>, to include notified absences in attendance tracking calculations.</p> <p>Set the rule to <b>N</b>, to not include notified absences.</p> <p>Set the rule to <b>I</b>, to not consider data for canceled classes in the attendance percentage calculation.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – display photos</p>	<p>Set the <b>PHOTOS</b> rule to <b>Y</b>, to display student photos (or a photo placeholder if no photo is available for a student).</p> <p>Set the rule to <b>N</b>, to not display student photos.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – generate canceled email</p>	<p>Set the <b>EMAILCANCL</b> rule to <b>Y</b> to automatically generate an email message that is sent to the registered students when a class meeting is canceled.</p> <p>Set the <b>EMAILCANCL</b> rule to <b>N</b> to not send an email.</p>
<p><b>Crosswalk Validation Page (GTVSDAX)</b> – generate reinstated email</p>	<p>Set the <b>EMAILREINS</b> rule to <b>Y</b> to automatically generate an email message that is sent to the registered students when a canceled class meeting is reinstated.</p> <p>Set the <b>EMAILREINS</b> rule to <b>N</b> to not send an email.</p>

Item	Description
<b>Crosswalk Validation Page (GTVSDAX)</b> – require note entry for absence	Set the <code>REQABSNOTE</code> rule to <code>Y</code> if faculty members are required to enter a note for any absence being recorded.  Set the rule to <code>N</code> if entry of a note for an absence is optional.  This is used for the <b>Mark Attendance</b> page and applies to single and extended absences.
<b>Crosswalk Validation Page (GTVSDAX)</b> – update total hours	Set the <code>TOTALHRSUP</code> rule to <code>UPDATE</code> to use attendance tracking to update the total hours in Faculty Grade Entry.  Set the rule to <code>UPDATE_NULL</code> to only update the total hours value if the field is <code>Null</code> .  Set the rule to <code>NO_UPDATE</code> to not make changes to the total hours.

## Set up GTVSDAX rules

Here is a quick reference summary of the **Crosswalk Validation Page (GTVSDAX)** rules that are used with attendance tracking.

External Code	Internal Code	Internal Code Group	Description
UPDATE	ATTDATEUPD	SS ATTENDANCE	Last attended update method
A	ATTRAUDIT	SS ATTENDANCE	Grading Mode Code for Auditing
Y/N	CLASSCANCL	SS ATTENDANCE	Incl Canceled Classes – (Y/N/I)
70	CUTOFFHIGH	SS ATTENDANCE	Cut off for high attendance
40	CUTOFFLOW	SS ATTENDANCE	Cut off for low attendance
Y/N	EMAILCANCL	SS ATTENDANCE	Email canceled meeting (Y/N)
Y/N	EMAILREINS	SS ATTENDANCE	Email reinstated meeting (Y/N)
Y/N	NOMEET	SS ATTENDANCE	Include non-standard meetings?



External Code	Internal Code	Internal Code Group	Description
Y/N	NOTIFYABS	SS ATTENDANCE	Incl Notified Absence – (Y/N/I)
Y/N	PHOTOS	SS ATTENDANCE	Display Photo – (Y/N)
20	RECPERPAGE	SS ATTENDANCE	Default no. of Records Display
Y/N	REQABSNOTE	SS ATTENDANCE	Required note absence (Y/N)
UPDATE	TOTALHRSUP	SS ATTENDANCE	Total hours update method

## Set up process control security rules

The following process codes on the **Process Control Code Validation Page (STVPROC)** are used with faculty security in attendance tracking.

Process Type Code	Description	Check Order	Enforce Check Order	PIN Control Allowed	System Required
DISPLAY ATTEND	Display Student Attendance	Advisor	No	No	Yes
DISPLAY ATTEND	Display Student Attendance	Faculty	No	No	Yes
ENTERATTEND	Attendance Tracking	Faculty	No	No	Yes

The following process rules on the **Faculty/Advisor Process Rules Page (SOAFACS)** are used with faculty security in attendance tracking.

**Note:** The DISPLAYATTEND rule for Advisor is for future use.

Process Code	Description	Check Order	Process Available on Self-Service	All Access	PIN Control	Relationship	Primary	Attribute Type Checking	System Required
DISPLAY ATTEND	Display Student Attendance	Advisor	Yes	Yes	No	No	No	No	Yes
DISPLAY ATTEND	Display Student Attendance	Faculty	Yes	Yes	No	No	No	No	Yes

Process Code	Description	Check Order	Process Available on Self-Service	All Access	PIN Control	Relationship	Primary	Attribute Type Checking	System Required
ENTER ATTEND	Enter Student Attendance	Faculty	Yes	Yes	No	No	No	No	Yes

## Set up attendance cumulative attendance rule processing

Verify that the following seed data has been applied.

### Business Rules Page (GORRSQL)

This business rule is used with attendance cumulative percentage processing.

**Note:** The delivered rule is meant to provide an example of a sample calculation and does not need to be used if it does not meet your requirements.

This example will calculate the student's attendance percentage for the current CRN across all meetings. It does not consider the **GTVSDAX** settings for the `CLASSCANCL` or `NOTIFYABS` rules in the calculation.

Process	Rule	Record	SQL Statement	Sys Req
ATTENDANCE _TRACKING	ATTR_CUMULATIVE <sup>1</sup> _STATISTIC_RULE		<pre>'select sum(sorsatr_actual_hrs)/ sum(sorsatr_expect_hrs) * 100 from sorsatr  where sorsatr_pidm = :STUDENT_PIDM  and sorsatr_surrogate_id_ssrmeet in ( select ssrmeet_surrogate_id from ssrmeet  where ssrmeet_mtyp_code = :MEETING_CODE  and ssrmeet_term_code = :TERM_CODE  and ssrmeet_catagory = :SESSION_ID</pre>	Yes

Process	Rule	Record	SQL Statement	Sys Req
			<pre> and ssrmeet_crn = :CRN)', null, 'select sum(sorsatr_actual_hrs)/ sum(sorsatr_expect_hrs) * 100 from sorsatr  where sorsatr_pidm = :STUDENT_PIDM  and sorsatr_surrogate_id_ssrmeet in ( select ssrmeet_surrogate_id from ssrmeet  where ssrmeet_term_code = :TERM_CODE  and ssrmeet_crn = :CRN  and ssrmeet_mtyp_code = :MEETING_CODE  and ssrmeet_catagory = :SESSION_ID) </pre>	

## Business Rule Process Parameters Page (GORSQPA)

These process codes and parameters are used with GORRSQL for attendance cumulative percentage processing.

- The `STUDENT_PIDM` parameter allows an institution to define a rule that uses the student's PIDM as a variable, such as `Where sgbstdn_pidm = :PIDM`. The student that is logged in will be the PIDM selected.
- The `TERM_CODE` parameter allows an institution to define a rule that uses the term code as a variable.
- The `CRN` parameter allows an institution to define a rule that uses the CRN as a variable.
- The `MEETING_CODE` parameter allows an institution to define a rule that uses the meeting code as a variable.
- The `SESSION_ID` parameter allows an institution to define a rule that uses the session ID as a variable.

Process Code	Parameter Code	System Required
ATTENDANCE_TRACKING	STUDENT_PIDM	No
ATTENDANCE_TRACKING	TERM_CODE	No

Process Code	Parameter Code	System Required
ATTENDANCE_TRACKING	CRN	No
ATTENDANCE_TRACKING	MEETING_CODE	No
ATTENDANCE_TRACKING	SESSION_ID	No

## Business Rule Parameter Code Validation Form (GTVSQPA)

These parameter codes are used with GORSQPA for attendance cumulative percentage processing.

Code	Description	Data Type	Start Date	End Date
STUDENT_PIDM	Student PIDM	NUMBER	System Date	System Date
TERM_CODE	Term Code	CHARACTER	System Date	System Date
CRN	Course Reference Number	CHARACTER	System Date	System Date
MEETING_CODE	Meeting Code	CHARACTER	System Date	System Date
SESSION_ID	Session ID	CHARACTER	System Date	System Date

## Business Rule Process Code Validation Page (GTVSQPR)

This process code is used with GORRSQL for attendance cumulative percentage processing.

Code	Description	System Required
ATTENDANCE_TRACKING	Banner Student Attendance Tracking rule	Yes

## Business Rule Code Validation Page (GTVSQRU)

This rule code is used with GORRSQL for attendance cumulative percentage processing.

Code	Description	System Required
ATTR_CUMULATIVE_STATISTIC_RULE	Attendance Tracking cumulative statistics rule	Yes

## Set up email cancel and reinstate meeting

Verify that the following seed data has been applied to when using the email processing for canceling or reinstating a class meeting.

### Letter Code Validation Page (GTVLETR)

These letter codes are used with canceling and reinstating the email for the class meeting.

Letter Code	Description	Allow Duplicates	Alternate Letter Code	Print Command
ATTR_CANCEL	ATTR Cancel Email	No	Null	Null
ATTR_UNCANCEL	ATTR Uncancel Email	No	Null	Null

### HTML Letter Rules Page (SOAELTL)

These letter rule codes are used with canceling and reinstating the email for the class meeting.

Letter Code	Description	Module
ATTR_CANCEL	ATTR Cancel Email	S
ATTR_UNCANCEL	ATTR Uncancel Email	S

### Format HTML Letter Rules Page (SOAELTR)

New entries are delivered for letter rule codes and email text items. These entries are used with the email format when email is sent to cancel or reinstate a class meeting.

Letter Code	Description	Seq Num	Formatting	Variable	Text
ATTR_CANCEL	ATTR Cancel Email	1	Select from list	Select from STVELMT	This is an informational e-mail indicating that the...
ATTR_CANCEL	ATTR Cancel Email	2	Select from list	Select from STVELMT	\$MEETING_DATE meeting of \$SUBJECT \$COURSE, \$CRN has been

Letter Code	Description	Seq Num	Formatting	Variable	Text
					canceled by \$FACULTY.
ATTR_CANCEL	ATTR Cancel Email	3	Select from list	Select from STVELMT	Our records show that you are registered in this class.
ATTR_CANCEL	ATTR Cancel Email	4	Select from list	Select from STVELMT	Other class meetings will be held as scheduled.
ATTR_CANCEL	ATTR Cancel Email	5	Select from list	Select from STVELMT	No action is needed on your part, this was strictly informational.
ATTR_CANCEL	ATTR Cancel Email	6	Select from list	Select from STVELMT	If you feel you have received this message in error, please discard this mail.
ATTR_CANCEL	ATTR Cancel Email	7	Select from list	Select from STVELMT	This is for the PERSON only.
ATTR_UNCANCEL	ATTR Uncancel Email	1	Select from list	Select from STVELMT	This is an informational e-mail indicating that the...
ATTR_UNCANCEL	ATTR Uncancel Email	2	Select from list	Select from STVELMT	\$MEETING_DATE meeting of \$SUBJECT \$COURSE, \$CRN which was previously canceled has been reinstated by \$FACULTY.
ATTR_UNCANCEL	ATTR Uncancel Email	3	Select from list	Select from STVELMT	Our records show that you are registered in this class.
ATTR_UNCANCEL	ATTR Uncancel Email	4	Select from list	Select from STVELMT	Other class meetings will be held as scheduled.

---

<b>Letter Code</b>	<b>Description</b>	<b>Seq Num</b>	<b>Formatting</b>	<b>Variable</b>	<b>Text</b>
ATTR_UNCANCEL	ATTR Uncancel Email	5	Select from list	Select from STVELMT	No action is needed on your part, this was strictly informational.
ATTR_UNCANCEL	ATTR Uncancel Email	6	Select from list	Select from STVELMT	If you feel you have received this message in error, please discard this mail.
ATTR_UNCANCEL	ATTR Uncancel Email	7	Select from list	Select from STVELMT	This is for the PERSON only.

---

## Migrate from 8.x

Here is some information for institutions who are migrating from the European Solution Center 8.x version of Attendance Tracking.

### SSEN and VOCAP

Please consider the following requirements that are in addition to the requirements listed in the beginning of this document.

- Self-Service Engine (SSEN), now called Self-Service Page Builder, is not required for Banner Student Attendance Tracking 9.x. It is used with Banner Attendance Tracking 8.2.
- Vocational Placements (VOCAP) is not affected by Banner Attendance Tracking in 8.2 or 9.x. This is an ESC tool that links to Banner Attendance Tracking to allow the tracking of VOCAP Placements.)

The forms and processes in Banner Attendance Tracking 8.2 can still be used to track VOCAP data, even if Banner Student Attendance Tracking 9.x is installed. However, you *must* use Banner Events Management 9.x and Banner Student Attendance Tracking 9.x to track VOCAP data when Banner Student Attendance Tracking 9.x is installed.

### Disable existing links

International clients who want to use the Banner Student Attendance Tracking application can disable the links to the Self-Service pages originally delivered by the European Solutions Center (ESC). The menu links to the Attendance Tracking pages in 8.x Self-Service must be disabled in Web Tailor.

#### About this task

Use the following steps to disable the menu links to the pages. You can disable one menu link at a time.

---

#### Disable the menu links for the following pages in Banner Student Self-Service:

---

Attendance Tracking	Student Term Selection	SC_ATTR_SELECTTERM1
Attendance Tracking	Student CRN Attendance Summary	SC_ATTR_ATTENDANCESUMMARYCRN3
Attendance Tracking	Student Placement Attendance Summary	SC_ATTR_ATTENDANCESUMMARYPLAC3
Attendance Tracking	Student Event Attendance Summary	SC_ATTR_ATTENDANCESUMMARYEVNT3

---



---

**Disable the menu links for the following pages in Banner Faculty and Advisor Self-Service:**

Attendance Tracking	Term Selection	SC_ATTR_SELECTTERM
Attendance Tracking	CRN Selection	SC_ATTR_SELECTCRN
Attendance Tracking	Placement Selection	SC_ATTR_SELECTPLACEMENT
Attendance Tracking	Event Selection	SC_ATTR_SELECTEVENT
Attendance Tracking	Record Set Size Entry	SC_ATTR_RECSETSIZESEL
Attendance Tracking	CRN Attendance Entry	SC_ATTR_ENTERATTENDANCE and SC_ATTR_ENTERATTENDANCES
Attendance Tracking	CRN Long-Term Absence	SC_ATTR_LONGTERMABSENCECRN1 and SC_ATTR_LONGTERMABSENCECRN2
Attendance Tracking	CRN Attendance Summary	SC_ATTR_ATTENDANCESUMMARYCRN1 and SC_ATTR_ATTENDANCESUMMARYCRN2
Attendance Tracking	Placement Attendance Entry	SC_ATTR_ENTERATTENDANCEPLAC and SC_ATTR_ENTERATTENDANCESPLAC
Attendance Tracking	Placement Absence and Made-up Time	SC_ATTR_ABSENCEMAKEUPPLC1 and SC_ATTR_ABSENCEMAKEUPPLC
Attendance Tracking	Insert Placement Absence or Made-up Time	SC_ATTR_INSERTABSMKUPLC1 and SC_ATTR_INSERTABSMKUPLC
Attendance Tracking	Placement Long-Term Absence	SC_ATTR_LONGTERMABSENCEPLAC1 and SC_ATTR_LONGTERMABSENCEPLAC2
Attendance Tracking	Placement Attendance Summary	SC_ATTR_ATTENDANCESUMMARYPLAC1 and SC_ATTR_ATTENDANCESUMMARYPLAC2
Attendance Tracking	Event Attendance Entry	SC_ATTR_ENTERATTENDANCEEVNT and SC_ATTR_ENTERATTENDANCESEVNT

---

---

### Disable the menu links for the following pages in Banner Faculty and Advisor Self-Service:

Attendance Tracking	Event Long-Term Absence	SC_ATTR_LONGTERMABSENCEEVNT1 and SC_ATTR_LONGTERMABSENCEEVNT2
Attendance Tracking	Event Attendance Summary	SC_ATTR_ATTENDANCESUMMARYEVNT1 and SC_ATTR_ATTENDANCESUMMARYEVNT2
Attendance Tracking	Update Gradable Component	SC_ATTR_UPDATEATTENDANCECOMP

#### Procedure

1. Access Web Tailor.
2. On the Web Tailor Menu (bmenu.P\_WebTailorMnu), select **Web Menus and Procedures**.
3. On the **Customize a Web Menu or Procedure** page (twbkwmnu.P\_OptionPgWebMain), enter the package.procedure name of the Web page in the **Search by Name** field.
4. Click **Search**.
5. Select the name in the **Procedure Name** field.
6. On the **Customize a Web Menu or Procedure** page (twbkwmnu.P\_ModifyPgWebMain), click **Copy Baseline to Local**.
7. On the **Customize a Web Menu or Procedure** page (twbkwmnu.P\_CopyToLocalPgWebMain), clear the **Enabled Indicator** check box.
8. Click **Submit Changes**.
9. Repeat these steps for each menu link you want to disable.

## Obsolete ESC pages

The following pages, delivered by the European Solution Center (ESC) in Banner 8.x, are no longer used with Banner Student Attendance Tracking 9.x.

### Attendance Tracking Setup Page (SKAATSU)

This page has been replaced by the **Attendance Tracking Setup Rules Page (SOATTRK)** and the **Attendance Tracking Meeting Rules Page (SOAATMT)**.

SKAATSU can still be used in Banner 8.x with the version of Banner Student that is delivered by the ESC for VOCAP attendance tracking.

## Attendance Tracking Parameter Page (GKAKSYS)

This page has been replaced by the **Attendance Tracking Setup Rules Page (SOATR)** and **Attendance Tracking Meeting Rules Page (SOATMT)**.

GKAKSYS can still be used in Banner 8.x with the version of Banner Student that is delivered by the ESC for VOCAP attendance tracking.

## Data migration

This section discusses moving your data from the ESC 8.x Attendance Tracking Attendance Tracking module to the Banner Student 9.x Attendance Tracking application.

Data is migrated from the ESC Attendance Tracking Repeating Table (SKRATTR) to the Student Attendance Tracking Recording Table (SORSATR) using the Section Meeting Times Repeating Table (SSRMEET).

Here is the script that performs the migration.

```

INSERT INTO sorsatr
(
  SORSATR_SURROGATE_ID_SSRMEET,
  SORSATR_PIDM,
  SORSATR_MEET_DATE,
  SORSATR_EXPECT_HRS,
  SORSATR_ACTUAL_HRS,
  SORSATR_ABSENT_HRS,
  SORSATR_ATTEND_IND,
  SORSATR_USER_ID,
  SORSATR_ACTIVITY_DATE,
  --SORSATR_SURROGATE_ID, populated by trigger
  --SORSATR_VERSION, populated by trigger
  SORSATR_AUTH_IND,
  SORSATR_COMMENT,
  SORSATR_DATA_ORIGIN
  -- SORSATR_VPDI_CODE populated by trigger
)
SELECT  ssmmeet_surrogate_id,
        skratr_pidm,
        nvl(skrattr_date,sysdate),
        nvl(skrattr_expect_hrs,0)*60,
        nvl(skrattr_actual_hrs,0)*60,
        nvl(skrattr_abs_hrs,0)*60,
        nvl(skrattr_attend_ind,'N'),
        user,
        sysdate,
        skratr_auth_ind,
        skratr_comment,
        skratr_data_origin
FROM    skratr,
        ssmmeet
WHERE   ssmmeet_term_code = skratr_term_code

```

---

```

AND      ssrmeet_crn = skrattr_crn
AND      ssrmeet_mtyp_code = skrattr_mtype_code
AND      skrattr_date BETWEEN ssrmeet_start_date AND ssrmeet_end_date
AND      ssrmeet_begin_time = skrattr_begin_time
AND      ssrmeet_end_time = skrattr_end_time
AND      (
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_sun AND
    ssrmeet_sun_day IS NOT NULL) OR
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_mon AND
    ssrmeet_mon_day IS NOT NULL) OR
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_tue AND
    ssrmeet_tue_day IS NOT NULL) OR
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_wed AND
    ssrmeet_wed_day IS NOT NULL) OR
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_thu AND
    ssrmeet_thu_day IS NOT NULL) OR
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_fri AND
    ssrmeet_fri_day IS NOT NULL) OR
    (to_char( skrattr_date, 'DY' ) = g$_date.nls_abv_sat AND
    ssrmeet_sat_day IS NOT NULL)
    )
/

```

## Differences in how data is stored

In the 8.x version of Attendance Tracking, student attendance tracking records are created in the database as classes are identified to track attendance. These records are subsequently updated by faculty and instructors.

In the 9.x (baseline) version of Attendance Tracking, the student attendance records are saved in the database as faculty and instructors record the attendance.

For example, in 8.x, every student will have a SKRATTR record for next week; in 9.x, no student will have a SORSATR record for next week. This excludes extended absence records.

---

## Appendix A – Extensibility in Attendance Tracking

Extensibility is one of the key features of Banner 9.x. It uses tools, techniques, documentation, and source code to make Banner easier to tailor for existing and changing business requirements.

The following extensibility tools are delivered in this release:

- Configure Page Components
- Domain Extension Tool

### Configure Page Components – Self-Service pages

You can use the Configure Page Components tool to customize delivered user interface common components and add new common components to the Student Attendance Tracking pages.

- Within the Side Detail section, the Getting Started, Course Details, and Attendance tabs can be reordered.
- The Getting Started, Course Details, and Attendance tabs can be hidden.
- Within the Course Details and Attendance tabs, any of the delivered fields can be hidden.
- The order of the fields can be changed.
- The text labels can be changed.
- Within the grid on the student attendance tracking page, the fields can be hidden and the order of the fields can be changed.
- Within the grid, the column labels and tooltip text cannot be changed.

The Configure Page Components tool cannot be used with Faculty Attendance Tracking 9.3, but made be made available in a future release of that application.

For more detailed information, refer to the *Configure Page Components Tool for Self-Service Pages for Developers 9.1* document.

### Sample JSON file

This is an example of a JSON file used during the extensibility testing of the Student Attendance Tracking self-service page.

```
{ "sections": [
  {
    "name": "studentCourseListTable",
    "exclude": false,
    "fields": [{
      "name": "termCode",
      "exclude": false,
      "nextSibling": "subjectDesc"
    }
  ]
}
```

```
    ]],
  },
  {
    "name": "gridSection",
    "fields": [{
      "name": "termCode1",
      "exclude": true
    }]
  },
  {
    "name": "gridHeader",
    "fields": [{
      "name": "termCode",
      "exclude": true
    }]
  },
  {
    "name": "attendance",
    "nextSibling": "getStarted"
  },
  {
    "name": "getStarted",
    "nextSibling": "course"
  },
  {
    "name": "sessionSection",
    "exclude": false,
    "fields": [
      {
        "name": "attendanceTitle",
        "exclude": false
      },
      {
        "name": "sessionDetailsTitle",
        "exclude": false
      },
      {
        "name": "meetingRecord",
        "exclude": false,
        "nextSibling": "meetingNotifiedAbs"
      },
      {
        "name": "meetingCancelled",
        "exclude": false,
        "attributes": {"label": "Placeholder text"}
      },
      {
        "name": "meetingNotifiedAbs",
        "exclude": false
      },
      {
        "name": "absenceTitle",
        "exclude": false
      },
      {
        "name": "absenceDetailsDate",
        "exclude": false
      }
    ]
  }
}
```

```

    }
  ]
},
{
  "name": "courseSection",
  "exclude": false,
  "fields": [
    {
      "name": "meetingOccurrenceTitle",
      "exclude": false
    },
    {
      "name": "studentCampus",
      "exclude": false,
      "attributes": {"label": "New Campus Ellucian"}
    },
    {
      "name": "studentSectionDates",
      "exclude": true
    },
    {
      "name": "studentOtherStaff",
      "exclude": true
    }
  ]
},
{
  "name": "getStartedSection",
  "exclude": false
}
]]

```

## Configure Page Components – Administrative pages

The Configure Page Components tool can also be used with the prior versions of the Attendance Tracking administrative application (ZK).

You can hide fields that are not required, change the field type of delivered fields (within the bounds of the database functionality), and change the behavior of fields. For more information, refer to the *Banner Extensibility Configure Page Components Tool for ZK Pages for Administrative Users 9.0* document.

Fields	Version	Availability
Configure Page Components – Administrative applications	9.0	Embedded

## Domain Extension Tool

You can use this tool to add and display new fields that are not part of the delivered domain without modifying the source code.

It is recommended that this tool is used by experienced developers who are familiar with the nomenclatures and concepts used in Banner 9.x development. For more information, refer to the *Domain Extension Tool for Developers Handbook 9.0*.

Tool	Version	Availability
Domain Extension Tool	9.0	Using Client Git Repository

## Available domains

The following domains are included in the Attendance Tracking administrative application (ZK). You can use the Domain Extension Tool to extend a domain if you need to capture additional data.

Page	Domain Class Name	Associated Table or View	Named Query	Available Methods
SOAATMT	net.hedtech. banner.student. overall. Attendance Tracking MeetingRule	SORATMT	<ul style="list-style-type: none"> <li>fetchBySection MeetingTimeId</li> <li>fetchBySection MeetingTimeIds</li> </ul>	<ul style="list-style-type: none"> <li>fetchBySection MeetingTimeId</li> </ul> <p>(Longsection MeetingTimeId)</p> <ul style="list-style-type: none"> <li>fetchBySection MeetingTimeIds</li> </ul> <p>(List&lt;Long&gt;section MeetingTimeIds)</p>
SOAATMT	net.hedtech. banner.student. overall.Section Attendance Tracking RuleView	SVQ_ SOVACRN	fetchByTerm AndCourse ReferenceNumber	fetchByTerm AndCourse ReferenceNumber  (String term, String crn)
SOAATRK	net.hedtech. banner.student. overall. Attendance TrackingRule	SORATRK	<ul style="list-style-type: none"> <li>fetchAllByTerm PartOfTerm Subject CourseNumber AndCRN</li> <li>fetchByTerm</li> </ul>	(String term, String partOfTerm, String subject, String courseNumber, Stringcourse ReferenceNumber)



---

Page	Domain Class Name	Associated Table or View	Named Query	Available Methods
				fetchByTerm (String termCode)

---

## Additional documentation

Use the following steps to access extensibility tools user documentation on the Ellucian Support Center.

### Procedure

1. Go to the Ellucian Client Support web site:  
<http://www.ellucian.com/Solutions/Ellucian-Client-Support>.
2. Click **Ellucian Hub** to log in to the Ellucian Hub.
3. Choose the Ellucian Download Center application.  
or
4. Choose the Ellucian Support Center application.

## Appendix B – Markdown language

You can use Markdown language to format the Info Text for Attendance Tracking. Here are some examples of Markdown language commands and the formatting results.

### Headers

Here are examples of heading levels.

Markdown Input	Output
# Level 1 Header (H1)	Level 1 Header (H1)
## Level 2 Header (H2)	Level 2 Header (H2)
##### Level 5 Header (H5)	Level 5 Header (H5)

### Paragraphs

Here are examples of separating text into paragraphs and adding link breaks.

Markdown Input	Output
<p>One or more consecutive lines of text separated by one or more blank lines.</p> <p>This is another paragraph.</p>	<p>One or more consecutive lines of text separated by one or more blank lines. This is another paragraph.</p>
<p>To create a line break, end a line in a paragraph with two or more spaces.</p>	
<p>I am a sentence with a line break.</p>	<p>I am a sentence with a line break.</p>

### Lists

Here are examples of unordered and ordered lists.

Markdown Input	Output
<p>For unordered lists, use asterisks (*), plus signs (+), or dashes (-).</p>	

Markdown Input	Output
* Red	• Red
* Green	• Green
* Blue	• Blue
+ Red	• Red
+ Green	• Green
+ Blue	• Blue
- Red - Green - Blue	• Red • Green • Blue
For ordered lists, use numbers.	
1. Bird	1. Bird
2. MacHale	2. MacHale
3. Parish	3. Parish

## Emphasis

Here are examples of using italics and bold for emphasis.

Markdown Input	Output
<b>Italic (em tag)</b>	
I am <i>*emphasized*</i>	I am <i>emphasized</i>
I am <i>_emphasized_</i>	I am <i>emphasized</i>
<b>Bold (strong tag)</b>	
I am <b>**bold**</b>	I am <b>bold</b>
I am <b>__bold__</b>	I am <b>bold</b>

## Links

Here are examples of inline, reference, and automatic links.

The reference method has two parts, the link definition and the actual link. The link definition can be placed anywhere on the page, and it will not be displayed on the page itself.

Markdown Input	Output
Inline method	
This is [an example] ( <a href="http://example.com/Optional Title">http://example.com/Optional Title</a> ) inline link.	This is an example inline link.
Reference method	
<i>Link definition</i>	
[id]: <a href="http://example.com/Optional Title Here">http://example.com/Optional Title Here</a>	
<i>Link</i>	This is an example reference-method link.
This is [an example] [id] reference-method link.	
<b>Note:</b> If you do not define the link as [an example], then use the link name instead of the ID for the link definition, such as [an example]: <a href="http://example.com/Optional Title Here">http://example.com/Optional Title Here</a> .	
Automatic method	
<code>&lt;http://example.com/&gt;</code>	<a href="http://example.com">http://example.com</a>
<code>&lt;mailto:address@example.com&gt;&lt;/code&gt;</code>	<a href="mailto:address@example.com">mailto:address@example.com</a>

## Tables

Here is the Markdown input for a sample formatted table.

```
| First Header | Second Header |
| ----- | ----- |
| Row1 Cell1 | Row1 Cell2 |
| Row2 Cell1 | Row2 Cell2 |
```

Here is the output for that sample formatted table.

---

First Header	Second Header
Row1 Cell1	Row1 Cell2
Row2 Cell1	Row2 Cell2

## Image call

Here is an example of calling an image for display.

Markdown Input	Output
<code>![Alt text](/files/expand_arrow.JPG "Image call example")</code>	Image call example

## Literal characters

The characters in the following list may have special meanings in Markdown language. You can prevent Markdown language from interpreting them by placing a backslash (\) in front of them.

Character	Description
\	backslash
`	backtick
*	asterisk
_	underscore
{ }	curly braces
[ ]	square brackets
( )	parentheses
#	hash mark
+	plus sign
-	minus sign or hyphen
.	dot
!	exclamation mark
:	colon
	pipe

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<b>Markdown Input</b>	<b>Output</b>
\\	\
\`	`
\*	*
\_	_
\{\}	{ }
\[\]	[ ]
\(\)	( )
\#	#
\+	+
\-	-
\.	.
\!	!
\:	:
\	

---

## Appendix C - Examples for setting up Grade Book

When you set up the attendance percentage on the Gradable Component Definition (SHAGCOM), it's important to consider the effect of the **Weight** and **Must Pass** settings on the student's overall score and final grade.

### Setup on the Grade Scale Definition (SHAGSCH) page

These examples illustrate scenarios where different weights are assigned to the attendance component and the **Must Pass** option is selected or not. All examples have these settings on the Grade Scale Definition (SHAGSCH) page in common.

Grade Scale Description	Pass Percentage	Default Grade Code	Associated with Grade Component	Percentage range	Grade
Normal Grade mode	50	F	selected	100	A&
				90.00 - 99.99	A
				80.00 - 89.99	B
				70.00 - 79.99	C
				60.00 - 69.99	D
				10.00 - 59.99	GR
				0 - 9.99	F

Grade Scale Description	Pass Percentage	Default Grade Code	Associated with Grade Component	Percentage range	Grade
minimum attendance required	50	P	not selected	50 - 100	A
				0 - 49	F

### Weight = 0 and Must Pass is selected

When you enter a **Weight** equal to zero and select **Must Pass**, it indicates that the student must have at least the minimum attendance percentage to pass the class, but the grade calculation does not include attendance.

Example 1: The student has the following attendance and grade record. Because the student did not meet the minimum attendance percentage of 50 and **Must Pass** is selected, the student's actual grade is an F.

ATTRGRD Percent	Calculated score and grade	Actual grade
39	76.77	F

Example 2: When the student's attendance percentage increases to 51 percent, the student passes the class and their calculated grade results in an actual grade of C.

ATTRGRD Percent	Calculated score and grade	Actual grade
51	76.77	C

#### Weight = 10 and Must Pass is selected

When you increase the **Weight** of the attendance component to 10, this indicates that you want the system to factor in the attendance percentage when it calculates the actual grade.

Example 3: As in Example 1, if the student does not meet the minimum attendance percentage and **Must Pass** is selected, the student will not pass the class, regardless of the calculated grade and the weight assigned to the attendance percentage.

ATTRGRD Percent	Calculated score and grade	Actual grade
39	72.9	F

#### Weight = 10 and Must Pass not selected

When **Must Pass** is not selected, the system does not consider the attendance percentage in the actual grade. It does consider the attendance percentage in the actual grade, because you have assigned a weight to it.

Example 4: Because **Must Pass** is not selected, a student with an attendance percentage of 39 does not fail the class. The system, however, does include the attendance percentage in the final grade calculation because you have assigned it a weight. In this case, it lowers the student's calculated grade and results in an actual grade of C.

ATTRGRD Percent	Calculated score and grade	Actual grade
39	72.9	C



**Summary of results**

The table below summarizes the results of the examples and shows how the different settings can greatly affect the actual grade a student receives.

<b>Example number</b>	<b>ATTRGRD Percent</b>	<b>Weight</b>	<b>Must pass</b>	<b>Calculated score and grade</b>	<b>Actual grade</b>
1	39	0	selected	76.77	F
2	51	0	selected	76.77	C
3	39	10	selected	72.9	F
4	39	10	not selected	72.9	C