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Banner Student
Attendance Tracking Handbook

Release 9.2
August 2015

Revision History

Publication Date	Summary
August 2015	New version that supports Banner Student Attendance Tracking 9.2 software.

Contents

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.

Here are the chapters contained in this handbook.

User Interface

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

Banner Getting Started Guide

Please refer to the *Banner 9.x Getting Started Guide* for information such as:

- 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 without Single Sign-On

When single sign-on is not in use, you can do the following to access Attendance Tracking.

1. Log in to Banner Self-Service 8.x.
2. Select the Attendance Tracker option on the Banner Self-Service Main Menu (`bmenu.P_MainMnu`).
3. Log in to Attendance Tracking on the Login page.

> **Note:** Users need to have a session or sessions of Self-Service Banner 8.x open to use other features in Banner Self-Service that are not included in or directly accessible from the Banner 9.x Attendance Tracking pages.

Log out of Attendance Tracking

When you exit out of Attendance Tracking, *always* use the **Sign Out** button 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.

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)

Web Tailor Info Text

Info Text is used for the Getting Started tab for both Banner Faculty and Advisor Self-Service and Banner Student Self-Service. 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.

Please refer to the *Banner Web Tailor User Guide* for information on customizing Info Text. Instructions can be found in the "Using Web Tailor" chapter.

> **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.
>
> See the "Markdown language" section that follows 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.

Use the **Copy Baseline entries to Local** button to copy the seed data. You can then modify the text as you wish.

Seq #	Label	Source	Info Text
The following labels are used with procedure ATTR9 for Banner Faculty and Advisor Self-Service.			
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
			YourRegistrar@YourInstitution.Edu
1	FGetStartedTitle	Baseline	Welcome to Banner 9.x Student Faculty Attendance Tracking
The following labels are used with procedure SATTR9 for Banner Student Self-Service.			
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
			YourRegistrar@YourInstitution.Edu
1	SGetStartedTitle	Baseline	Welcome to Banner 9.x Student Attendance Tracking Self-Service

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
`One or more consecutive lines of text separated by one or more blank lines.`	One or more consecutive lines of text separated by one or more blank lines.
`This is another paragraph.`	This is another paragraph.
To create a line break, end a line in a paragraph with two or more spaces.	
`I am a sentence with a line break.`	I am a sentence with a line break.

Lists

Here are examples of unordered and ordered lists.

Markdown Input	Output

For unordered lists, use asterisks (*), plus signs (+), or dashes (-).
 	
`* Red`
`* Green`
`* Blue`
	• Red
	• Green
	• Blue

`+ Red`
`+ Green`
`+ Blue`
	• Red
	• Green
	• Blue

`– Red`
`– Green`
`– Blue`
	• Red
	• Green
	• Blue

For ordered lists, use numbers.
 	
`1. Bird`
`2. MacHale`
`3. Parish`
	1. Bird
	2. MacHale
	3. Parish

Emphasis

Here are examples of using italics and bold for emphasis.

Markdown Input	Output
Italic (em tag)	
`I am *emphasized*`	I am *emphasized*
`I am _emphasized_`	I am *emphasized*
Bold (strong tag)	
`I am **bold**`	I am **bold**
`I am __bold__`	I am **bold**

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](http:// example.com/"Optional Title") inline link.`	This is [an example](http://example.com) inline link.
Reference method	
Link definition	
`[id]: http://example.com/ "Optional Title Here"`	
Link	
`This is [an example] [id] reference-method link.`	This is [an example](http://example.com) reference-method link.

Note: 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]: http:// example.com/ "Optional Title Here"`.

Automatic method	
`<http://example.com/>`	http://example.com
`<address@example.com></ code>`	address@example.com

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
`![Alt text](/files/ expand_arrow.JPG "Image call example")`	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

Markdown Input	Output
\\	\
\`	`
*	*
_	_
\{\}	{}
\[\]	[]
\(\)	()
\#	#
\+	+
\-	-
\.	.
\!	!
\:	:
|		

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.

Filename 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 filenames 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 filename of I12345678.

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

Since some file systems restrict the number of characters a file can have, 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 filenames 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 filenames:

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

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 photograph configuration, please 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.

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.

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.

Please 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. Please refer to the *Multi-Entity Processing Handbook* for more information on using MEP.

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

For example:

For the `GTVVPDI_CODE` value of *INST* (`GTVVPDI_DESC` value of Institution), the URL would be:
`http://localhost:8080/AttendanceTracking?mepCode=INST`

For the `GTVVPDI_CODE` value of *BANNER* (`GTVVPDI_DESC` value of Banner College), the URL would be:
`http://localhost:8080/AttendanceTracking?mepCode=BANNER`

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.

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 username and password are entered.

2. The user is presented with a list of students and CRNs.

   2.1. The student user can view the data.

   2.2. 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 once 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. These rules are still defined in Banner 8.x.

• 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 username, 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 username, then FGAC will not be in effect.

Values stored in Web Tailor or in application

For Banner Student Attendance Tracking 9.x, some values are set up in Web Tailor, and others are delivered in the application. Values delivered in the application can be reconfigured there. This is different from Banner Self-Service 8.x. This presents a new model that moves away from using Web Tailor.

Here is a list of which Web Tailor settings are and are not used by Attendance Tracking.

Web Tailor Web Page	Field	Used or Not Used by Attendance Tracking
Customize Web Rules	Web Timeout in minutes	Not used
	Maximum Number of Login Attempts	Used
	Date Display Format Mask	Not used
	Date Input Format Mask	Not used
	Display Usage Page	Not used
	Enable Web Page Caching	Not used
	Use HTTP Redirection After Login	Not used
	Java Classpath	Not used
	Document Type Definition	Not used
	Document Type Definition FPI	Not used
	Document Type Definition URL	Not used
	Language ISO 639-1	Not used
Customize Global User Interface Settings	System or Institution Name	Not used
		(ellucian.UNIVERSITY is delivered as part of the institution's Banner image file. Edit the file at your site to include your institution's image.)
Customize a Web Tailor Parameter	Parameter Name	Used

Use Attendance Tracking

This section discusses attendance tracking processing and includes step-by-step instructions for setup and use, as well as the 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. Tracking is done at the meeting level for section meetings. The totals are then passed to the CRN if that is required. You can track total contact hours and total absence hours for the student, as well as the attendance hours for the CRN. Attendance can be marked as present or absent.

- Use the Attendance Tracking Rule Setup Page (SOAATRK) to set up attendance tracking rules by term.

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

Self-Service pages are also 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.

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

The **Absence Notified** indicator allows the faculty member to mark a student as absent but not have that affect the student's percentage, depending on the setting of the NOTIFYABS rule on GTVSDAX. This rule is used to allow for the calculation of extenuating circumstances if the institution allows for that.

Extended absence information, as well as comments about and reasons for the absence, can also be entered and stored against the absence dates. This creates the absence information for the student in the date range specified for the section meetings. It also updates the **Absence Notified** indicator and inserts any notes into the **Notes** field (in the Extended Absence window) for each section meeting. The calculation of the percentage is again controlled by the setting of the NOTIFYABS rule on GTVSDAX for notified absence. The REQABSNOTE rule on GTVSDAX can be set to require the entry of a note when the **Absence Notified** indicator is checked for single or extended absences.

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).

You choose how attendance is to be recorded when the rules are defined on SOAATRK and SOAATMT. The following options are available on the Mark Attendance page in Faculty and Advisor Self-Service:

- `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 for all of the expected time, unless the faculty member enters information that indicates otherwise.

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 accesses the page in Banner Faculty and Advisor Self-Service. 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. So when the drop is administrative, such as a drop/delete that causes fee assessment to be recalculated, or is the result of an error, the attendance data is retained.

Meeting rules

Meeting rules are evaluated using the data in the SORATRK and SORATMT tables. 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. Classes are only displayed for rules that are set up by term, to limit the number of terms displayed to the students.

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. Once a condition has been met, that rule is used, and no further rules are examined.

1. When the term and CRN combination matches a rule in SOAATMT, that rule is used.

2. Otherwise, the rules on SOAATRK are examined in this order.

   2.1. When the term and CRN combination matches a rule, that rule is used.

   2.2. When the term and course number combination matches a rule, that rule is used.

   2.3. When the term and subject combination matches, that rule is used.

   2.4. When the term and part of term combination matches, that rule is used.

   2.5. When only the term matches, that rule is used.

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

1. When the **Display Class** indicator on SOAATMT or SOAATRK (`SORATxx_TRACK_ATTEND_IND`) is set to `N`, then no one can view the class/meeting.

2. When the **Display Class** indicator on SOAATMT or SOAATRK (`SORATxx_TRACK_ATTEND_IND`) is set to `Y`, the following is evaluated.

   2.1. When the **Track Class Attendance** indicator on SOAATMT or SOAATRK (`SORATxx_ATTEND_ENTER_IND`) is set to `N`, both faculty members and students can view the class/meeting.

   2.2. When the **Track Class Attendance** indicator on SOAATMT or SOAATRK (`SORATxx_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.

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
Today is less than the start date	Faculty - No view or update Student - No view or update	NA	Faculty - View only Student - View only	Faculty - View only Student - View only
Today is equal to the start date	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	
Today is between the start and end dates	Faculty - No view or update Student - No view or update	NA	Faculty - View only Student - View only	Faculty - Update allowed Student - View only
Today is equal to the end date	Faculty - No view or update Student - No view or update	NA	Faculty - View only Student - View only	Faculty - View only Student - View only
Today is greater than the end date	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/or end dates 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 Faculty and Advisor Self-Service 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 Faculty and Advisor Self-Service 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. Once 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 8.x 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.

Please 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:

- `DISPLAYATTEND` - For advisor use. This process has been added in preparation for a future release. Advisors cannot currently access attendance tracking information.

- `DISPLAYATTEND` - For faculty use. This process is available except for the **PIN Control**, **Relationship**, and **Attribute Type Checking** indicators, which are set to `unchecked` or `No`.

- `ENTERATTEND` - For faculty use. This process is available except for the **PIN Control**, **Relationship**, and **Attribute Type Checking** indicators, which are set to `unchecked` or `No`.

See the "Setup Quick Reference" section 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.

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.

ATTDATEUPD rule

The `ATTDATEUPD` rule is used to allow the update of the last date of attendance data in Banner Student Faculty Grade Entry 9.x. 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 "Last date of attendance and total hours topic" 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. The value of `A` is delivered as the default for "audit mode". You can change this to the code for 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.

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.

DETNAMEFMT rule

The `DETNAMEFMT` rule is used to control the format of the student name in the Student Details tab in the Faculty Attendance Tracking page. The default setting is `FMIL` for format First Name, Middle Initial, Last Name.

Refer to the "Name format rule options" topic for more information about using this rule and the associated formats.

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.

FACNAMEFMT rule

The `FACNAMEFMT` rule is used to control the format of the instructor name that is used in the student view of Staff details information. The default setting is `FMIL` for format First Name, Middle Initial, Last Name.

Refer to the "Name format rule options" topic for more information about using this rule and the associated formats.

LSTNAMEFMT rule

The `LSTNAMEFMT` rule is used to control the format of student names listed on the Faculty Attendance Tracking page. The default setting is `LFMI` for format Last Name, First Name, Middle Initial.

Refer to the "Name format rule options" topic for more information about using this rule and the associated formats.

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.

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 "Image files" topic 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 "Last date of attendance and total hours" topic for more information about using this rule and the associated values.

Name format rule options

The format options for the `DETNAMEFMT`, `FACNAMEFMT`, and `LSTNAMEFMT` rules are as follows:

Value	Format Description
LF30	Last name, first name for 30 characters
L30	Last name for 30 characters
L60	Last name for 60 characters
FL30	First name, last name for 30 characters
FL	First name, last name
FMIL	First name, middle initial, last name
FML	First name, middle name, last name
LFMI	Last name, first name, middle initial
LFM	Last name, first name, middle name
LFIMI30	Last name, first name initial, middle name initial for 30 characters

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	Updates the field with the most recently entered date for which a present attendance value has been recorded, *if* this date is more recent than the date that was already in the field (the existing date from SFRSTCR). This option only evaluates the attendance data for the currently selected meeting.
	UPDATE_NULL	Only updates the last date of a present attendance value if the field is Null. (The existing value from SFRSTCR is Null.) This setting can be used to preserve attendance information from an alternate source.
	NO_UPDATE	Stops any further processing for the last date of attendance data from attendance tracking. (No update of the SFRSTCR value is allowed.) If any further updates are needed, they must be done elsewhere.
	UPDATE_ALL	Updates the field with the most current (maximum) date, calculated across all present attendance records for each student for the CRN, *only* when the new value is greater than the existing SFRSTCR value. Specific meeting attendance records are not considered. • When the student has at least one present attendance record, the field will be updated in SFRSTCR to show the maximum attendance. • When the student does not have any present attendance records, SFRSTCR will not be updated for that student.
	UPDATE_ALL_FORC	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.)
	UPDATE_FORCIBLY	Always updates the field for a single meeting attendance record. (SFRSTCR is always updated.) This option only evaluates the attendance data for the currently selected meeting.

Field	Setting	Result

Using the `UPDATE_ALL_FORC` and `UPDATE_FORCIBLY` options allows a last date of attendance to move back in time. Here 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.

Field	Setting	Result
Total Hours	UPDATE	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.
	UPDATE_NULL	Only updates the total hours value if the field was Null.
	NO_UPDATE	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.

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
UPDATE	Current	Only update SFRSTCR when new date is more recent than existing date
UPDATE_NULL	Current	Only update SFRSTCR when existing date is Null
NO_UPDATE	N/A	Never update SFRSTCR
UPDATE_ALL	All	Only update SFRSTCR when new date is more recent than existing date
UPDATE_ALL_FORC	All	Always update SFRSTCR
UPDATE_FORCIBLY	Current	Always update SFRSCTR

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 once 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.

1. Access the Attendance Tracking Rules Setup Page (SOAATRK).

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.

1. Access the Attendance Tracking Rules Setup Page (SOAATRK).

2. Enter a term in the Key block.

3. Click **Go**.

4. In the Attendance Tracking Rule section, uncheck the **Track Class Attendance** indicator 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.

1. Access the Attendance Tracking Meeting Rule Setup Page (SOAATMT).

2. Enter the term and CRN for the rule in the Key block.

3. Select the section meeting session for which you wish to create a rule.

4. Enter tracking data for the section meeting session selected in the above step.

5. Save your changes.

Enter attendance and absence information for a CRN in Banner Faculty and Advisor Self-Service

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

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/course section.

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

1. Access the Faculty and Advisors menu in Banner Faculty and Advisor Self-Service 8.x.

2. Select Attendance Tracker.

3. When the Faculty Attendance Tracking page is displayed, a list of available CRNs and sessions is displayed for the faculty member.

4. 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

5. Select a CRN and session, and view the course details in the Course Details tab.

    Details are displayed for the course, students, and staff.

6. Select the **Take Roll** button to access the Mark Attendance page for the CRN.

7. Scroll through the class dates to view attendance and absence information for section meetings.

8. Use the search box to locate a student. You can enter:

    • a partial or complete ID

    • a partial or complete name

    The display can be sorted on these columns:

    • Name

    • ID

    • Attendance Percentage

9. Perform actions that affect the entire class roster for the chosen date.

    9.1. Use the **Class** pulldown field to cancel the specific class meeting, update the last date of attendance, or update the total hours.

    9.2. 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.

    9.3. Select the Tools menu, and export the roster and attendance information.

    9.4. Select the Tools menu, and import the roster and updated attendance information.

10. Perform actions that affect a single student for the chosen date.

    10.1. Select a student record to view attendance details in the Student Details tab.

    10.2. 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.

    10.3. 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.

    10.4. 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.

10.5. When the meeting has both the days of the week and the start and end time defined, see the "Expected Hours" topic for more details on how to handle this type of meeting.

10.6. 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.

10.7. When the student has notified the faculty member of an extended absence, use the **Extended Absence** button 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.

11. Save the changes.

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) for a student, subject to the rules that are in effect.

Use the following steps to view attendance information.

1. Access the Student menu in Banner Student Self-Service 8.x.

2. Select Student Services: Attendance.

3. On the Student Attendance Tracking page, view the information for each CRN, including the attendance percentage.

4. Select a CRN and use the Course Details tab and the Absence Details tab to see more information for that record.

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, as well as a photo if one is provided.

This functionality is only available if the Banner 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.

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).

   5.1. Verify that the directory item code of `ADDR_CP` for campus address exists on GTVDIRO.

   5.1. 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).

   8.1. Verify that the directory item code of `ADDR_CP` exists on GOADIRO.

   8.2. Set up the campus address type and priority using directory rules on GOADIRO under the directory item code of `ADDR_CP`.

   8.3. 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).

   9.1. Verify that the directory item code of `TELE_CP` exists on GOADIRO.

   9.2. Set up the campus phone number type and priority using directory rules on GOADIRO under the directory item code of `TELE_CP`.

   9.3. 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.

- Set the `PHOTOS` rule on GTVSDAX to `Y` to display photos.

- You can also use the `banner.defaultPhoto` property to point at a photo you want use and where you want to use it.

- Please 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.

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.

Set up attendance thresholds

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

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.

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.

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

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.

Data Extract, Load, Export, and Import

This chapter contains information on the following topics:

- 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. Once 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 GUAOBJS 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:

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.

> **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 class roster grades into an Excel spreadsheet:

1. Access the Mark Attendance page.

2. Select the `Export Template` option from the Tools menu.

3. Follow the steps for the Export Grades wizard.

   3.1. Select the export file type as `Excel spreadsheet (.xls)` or `Excel spreadsheet (.xlsx)`.

   3.2. Select a specific student record or all students in the class.

   3.3. Select a specific meeting day, all displayed meeting days, or all meeting days.

   3.4. Select the **Export** button.

   3.5. 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, For example, `203020_Math_316_0_01.xls.`

   3.6. Save the file and download it to your desktop.

   3.7. Click **OK**.

   3.8. 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 use the **Cancel** button 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/or fewer days, 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. 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. Unchanged rows will not be included in the validation file.

- The import is enabled only when the corresponding page is editable.

- The import data is from the first worksheet only.

It is recommended that you use the export process to export a template prior to 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.

Note: 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. 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:

1. Access the Mark Attendance page.

2. Select the `Import` option 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

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

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.

    *   Use the **Go Back** button to choose a different file.
    *   Use the **Cancel** button to stop the process.

2. Select **Next**.

Map Columns

1. 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.
- Use the **Go Back** button to choose a different file.
- Use the **Cancel** button to stop the process.
- The following fields are required.
  - Term Code
  - CRN
  - Sessions Indicator
  - Start Time
  - Student ID
  - Meeting days
  - Meeting ID
- Also required and map two of each:
  - Expected Hours
  - Actual Hours
  - Absent Hours

Validate

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.

   - Use the **Go Back** button to remap the columns or view the import summary.

2. Use the **Download the validation report** link 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. Select the **Import** button.

   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.

Finished - Import Complete

Select the **Finished** button 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 the following:

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. Once the data is loaded, it can be modified the same way as manually entered information (using the Self-Service pages).

Data can be loaded using the Mass Data Update Utility (MDUU). Please 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

The following Banner Student pages administrative pages are used with this application. These pages are only in Banner 9.x. They are not converted from existing Banner 8.x forms.

- Attendance Tracking Rule Setup Page (SOAATRK)

- Attendance Tracking Meeting Rule Setup Page (SOAATMT)

Attendance Tracking Rule Setup Page (SOAATRK)

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 (SOAATMT)

Use the Attendance Tracking Meeting Rule Setup Page (SOAATMT) 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 menu, Banner tables, and Banner view used with Banner Student Attendance Tracking.

Banner menu

The Attendance Tracking Menu (*SARTK) is accessed from the Registration Menu (*REGISTRATION). This menu contains the following items:

- Attendance Tracking Rule Setup Page (SOAATRK)

- Attendance Tracking Meeting Rule Setup Page (SOAATMT)

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 view

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.

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.

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
```

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 Faculty and Advisor Self-Service pages
  - Faculty Attendance Tracking page
  - Mark Attendance page

Introductory pages

The introductory pages listed below are displayed after the user logs into either Banner Student Self-Service or Banner Faculty and Advisor Self-Service, 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), and 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. The Student Attendance Tracking page replaces the pages delivered by the ESC for the Banner 8.x version of attendance tracking.

Attendance Tracking menu link

An Attendance Tracker link is available on the Banner Self-Service 8.x Main Menu (`bmenu.P_MainMnu`).

Student Attendance Tracking

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

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 him or her 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.
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: `S`, `M`, `T`, `W`, `T`, `F`, `S`. The meeting days are highlighted.
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 GTVSDAX 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, registration, and instructor. This data is updated as attendance information is entered and saved.

The following fields are in the Course Details tab.

Fields	Descriptions
The following fields are in the Course Details section.	
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.
The following fields are in the Staff section.	
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.

Fields	Descriptions
Student Name (untitled)	Name of student.
The following fields are in the Session Details section.	
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.

Fields	Descriptions
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.

The following fields are in the Absence Details and are repeated for each recorded absence.

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 and Advisor Self-Service pages

Banner Faculty and Advisor Self-Service provides pages that allow faculty members to enter and check attendance tracking information. The Faculty Attendance Tracking and Mark Attendance pages replace the pages delivered by the ESC for the Banner 8.x version of attendance tracking.

Attendance Tracking menu link

An Attendance Tracker link is available on the Banner Self-Service 8.x Main Menu (`bmenu.P_MainMnu`).

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 scrollbar to resize the display.

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 him or her 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: `S`, `M`, `T`, `W`, `T`, `F`, `S`. The letters for the meeting days are highlighted.
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 (**Take Roll**) or in view mode (**View Students**). The label changes based on the mode allowed by the rules.
Show entries	Pulldown field used to select the display of records for the page. Choices are `10`, `50`, `100`, `250`, `500`. Be aware that larger numbers of records can take longer to load.

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
The following fields are in the Course Details section.	
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.
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.
The following fields are in the Students section.	
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 **Count in Enrollment** indicator checked on STVRSTS and set up on SFARSTS.
Auditing	Number of students auditing the course.
The following fields are in the Staff section.	
Primary Staff	Name of primary staff member for the course who can enter attendance data.

Fields	Descriptions
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 wish to work with.
Update All	Pulldown used to perform a batch update of the all students for the specific day. All class records are updated at one time. Values are: • `Update Empty Records to Present` • `Update Empty Records to Absent` • `Mark all Present` • `Mark All Absent` Please note that these actions may be updating a large number of records and could take some time to complete.
Class	Pulldown 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. Values are: • `Cancel this Class Meeting` • `Update CRN Last Date of Attendance` • `Update CRN Total Hours` • `Reinstate this Class Meeting` When a class has been canceled, the `Reinstate this Class Meeting` option is displayed and can be used to reinstate the class. Please note that these actions may be updating a large number of records and could take some time to complete.
Photo	Student photo or photo placeholder. The student's photo is displayed if this option is active (`PHOTOS` rule on GTVSDAX is set to `Y`), a photo of the student exists, and it is configured properly in the institution's file system.
Full Name	Student's full name, displayed in the format specified for the `DETNAMEFMT` rule on GTVSDAX. The student's name can be displayed as a hyperlink based on the setting of the `DISPLAYPROFILE` process rule on SOAFACS. • When you click on the student's name, you are taken to the Student Profile page for that student in Banner Student Advising Student Profile. The page opens in a new window. • When you hover over the student's name, the Student Contact Card is displayed, and you can select the **View Profile** button to access the Student Profile page.

Fields	Descriptions
ID	Student's ID number.
Attendance	Student's percentage of attendance for the course meeting.
Class Date (untitled)	Class date indicator displayed in the specified date format. A separate field is displayed for each date the class meets.
	This indicator is used to show that the student attended the course on a specific day. The default display is an empty circle.
	Values are a check mark in a circle for attendance, a minus sign in a circle for absence, or a numeric value for partial attendance, such as `1.5` or `3.0`.
	When a check box is displayed for a date, you can click on it to check it and update attendance information for the student.
	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.
Per Page	Pulldown used to select the display of records for the page. Choices are `10, 50, 100, 250, 500.` Be aware that larger numbers of records can take longer to load.

Student Details tab

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

Use 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.

The **Extended Absence** button can be used 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
The following fields are in the Student Details section.	
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.
Confidential and/or Deceased Indicator	*Confidential* and/or *Deceased* messages are displayed for the student as appropriate.
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.	
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 **Hours Attended** field.
	Use the **Hr** and **Min** pulldown lists to select the hours and minutes.
The following fields are in the Present section.	
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 **Hr** and **Min** pulldown lists to select the hours and minutes.
The following fields are in the Absence section.	
Absence Notified	Check box used to indicate that the student notified an administrator of the absence.
Extended Absence	Button that opens the Extended Absence window. You can enter information and save the changes or cancel out of the window.
The following fields are in the Extended Absence window.	
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.

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.
The following fields are in the Session Details section.	
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.
The following fields are in the Cumulative Attendance Details section.	
Overall Cumulative Attendance Percentage	Student's cumulative attendance percentage.
The following fields are in the Absence Details.	
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 E-mail Address Page (GOAEMAL) with a link to the user's email application.
Telephone	Student's phone number according to the directory priority assigned on the Directory Options Rules Page (GOADIRO) for the campus telephone (TELE_CP).
Address	Student's mailing address according to the directory priority assigned on the Directory Options Rules Page (GOADIRO) for the campus address (ADDR_CP).

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 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
These items apply to Banner Student Self-Service and Banner Faculty and Advisor Self-Service.	
Term Control Page (SOATERM)	For each term you want to be available for selection on the web, select the **Master Web Term Control** check box.
Attendance Tracking Rule Setup Page (SOAATRK)	Create attendance tracking rules by term.
Attendance Tracking Meeting Rule Setup Page (SOAATMT)	Create attendance tracking meeting rules for a specific term, CRN, and meeting.
Crosswalk Validation Page (GTVSDAX) - define student details name format	Set the `DETNAMEFMT` rule to `FMIL`, to define the name format in the student details as first name, middle initial, last name. Set the rule to another format if desired. See the "Name format rule options" section in this release guide for more format choices.
Crosswalk Validation Page (GTVSDAX) - define faculty name format	Set the `FACNAMEFMT` rule to `FMIL`, to define the faculty name format as first name, middle initial, last name. Set the rule to another format if desired. See the "Name format rule options" section in this handbook for more format choices.
Crosswalk Validation Page (GTVSDAX) - define list of names format	Set the `LSTNAMEFMT` rule to `LFMI`, to define the format for the list of student names as last name, first name, middle initial. Set the rule to another format if desired. See the "Name format rule options" section in this handbook for more format choices.

Item	Description
Crosswalk Validation Page (GTVSDAX) -set number of records displayed	Set the RECPERPAGE rule to the number of records you wish to display per page in Self-Service. The default is 20.
The following items apply to Banner Faulty and Advisor Self-Service.	
HTML Letter Rules Form (SOAELTL)	Set up letter rule codes for the email used to cancel and reinstate the class meeting.
Format HTML Letter Rules Form (SOAELTR)	Set up letter rules codes and email text for the email used to cancel and reinstate the class meeting.
Faculty/Advisor Process Rules Page (SOAFACS)	Set up the DISPLAYATTEND and the ENTERATTEND process rules for faculty use.
	Set up the DISPLAYPROFILE process rule when faculty members are allowed to access the student's profile.
Letter Code Validation Form (GTVLETR)	Set up letter codes for the email used to cancel and reinstate the class meeting.
Crosswalk Validation Page (GTVSDAX) - update last date of attendance	Set the ATTDATEUPD rule to UPDATE, to update the last date of attendance with the most recently entered date for which attendance has been recorded, for the currently selected meeting.
	Set the rule to UPDATE_NULL to only update the last date of attendance if the field is Null, to preserve attendance information from an alternate source.
	Set the rule to NO_UPDATE to not make changes to the last date of attendance. Further updates must be done elsewhere.
	Set the rule to UPDATE_ALL 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.
	Set the rule to UPDATE_ALL_FORC 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.
	Set the rule to UPDATE_FORCIBLY 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.

Item	Description
Crosswalk Validation Page (GTVSDAX) - define audit grade mode	Set the `ATTRAUDIT` rule to a specific grade mode value from STVGMOD to be used for "audit mode" in attendance tracking. Repeating rule values can be created. The value of A is delivered as the default. If no value is entered, the audit count will always be 0. 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.
Crosswalk Validation Page (GTVSDAX) - include canceled classes	Set the `CLASSCANCL` rule to `Y`, to include canceled classes in attendance tracking calculations. Set the rule to `N`, to not include canceled classes in attendance tracking. Set the rule to `I`, to not consider data for canceled classes in the attendance percentage calculation.
Crosswalk Validation Page (GTVSDAX) - set high attendance	Set the `CUTOFFHIGH` rule to the high threshold for attendance. The default is `70`.
Crosswalk Validation Page (GTVSDAX) - set low attendance	Set the `CUTOFFLOW` rule to the low threshold for attendance. The default is `40`.
Crosswalk Validation Page (GTVSDAX) - include non-standard meetings	Set the `NOMEET` rule to `N`, to only include standard meetings in attendance tracking. Standard meetings have specific meeting days and times on SSASECT. Set the `NOMEET` rule to `Y`, to also include non-standard meetings in attendance tracking. Non-standard meetings do not have specific meeting days and times on SSASECT.
Crosswalk Validation Page (GTVSDAX) - include notified absences	Set the `NOTIFYABS` rule to `Y`, to include notified absences in attendance tracking calculations. Set the rule to `N`, to not include notified absences. Set the rule to `I`, to not consider data for canceled classes in the attendance percentage calculation.
Crosswalk Validation Page (GTVSDAX) - display photos	Set the `PHOTOS` rule to `Y`, to display student photos (or a photo placeholder if no photo is available for a student). Set the rule to `N`, to not display student photos.

Item	Description
Crosswalk Validation Page (GTVSDAX) - generate canceled email	Set the `EMAILCANCL` rule `Y` to automatically generate an email message that is sent to the registered students when a class meeting is canceled. Set the `EMAILCANCL` rule `N` to not send an email.
Crosswalk Validation Page (GTVSDAX) - generate reinstated email	Set the `EMAILREINS` rule `Y` to automatically generate an email message that is sent to the registered students when a canceled class meeting is reinstated. Set the `EMAILREINS` rule `N` to not send an email.
Crosswalk Validation Page (GTVSDAX) - require note entry for absence	Set the `REQABSNOTE` rule to `Y` if faculty members are required to enter a note for any absence being recorded. Set the rule to `N` if entry of a note for an absence is optional. This is used for the Mark Attendance page and applies to single and extended absences.
Crosswalk Validation Page (GTVSDAX) - update total hours	Set the `TOTALHRSUP` rule to `UPDATE` to use attendance tracking to update the total hours in Banner Student Faculty Grade Entry. Set the rule to `UPDATE_NULL` to only update the total hours value if the field is *Null*. Set the rule to `NO_UPDATE` 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 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
FMIL	DETNAMEFMT	SS ATTENDANCE	Student details name format

External Code	Internal Code	Internal Code Group	Description
Y/N	EMAILCANCL	SS ATTENDANCE	Email canceled meeting (Y/N)
Y/N	EMAILREINS	SS ATTENDANCE	Email reinstated meeting (Y/N)
FMIL	FACNAMEFMT	SS ATTENDANCE	Faculty name format
LFMI	LSTNAMEFMT	SS ATTENDANCE	Student list name format
Y/N	NOMEET	SS ATTENDANCE	Include non-standard meetings?
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
DISPLAYATTEND	Display Student Attendance	Advisor	No	No	Yes
DISPLAYATTEND	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	Relation ship	Primary	Attribute Type Checking	System Required
DISPLAYATTEND	Display Student Attendance	Advisor	Yes	Yes	No	No	No	No	Yes
DISPLAYATTEND	Display Student Attendance	Faculty	Yes	Yes	No	No	No	No	Yes
ENTERATTEND	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_ STATISTIC_RULE	1	`'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`
			`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)`
				Yes

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.

SQPR Code	SQPA Code	System Required
ATTENDANCE_TRACKING	STUDENT_PIDM	No
ATTENDANCE_TRACKING	TERM_CODE	No
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 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.

Letter Code	Description	Seq Num	Formatting	Variable	Text
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 wish 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.

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_ABSENCEMAKEUPPLC2`)

- Attendance Tracking - Insert Placement Absence or Made-up Time (`SC_ATTR_INSERTABSMKUPLC1` and `SC_ATTR_INSERTABSMKUPLC2`)

- 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`)

- 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`)

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

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. Select the **Search** button.

5. Select the name in the **Procedure Name** field.

6. On the Customize a Web Menu or Procedure page (`twbkwmnu.P_ModifyPgWebMain`), select the **Copy Baseline to Local** button.

7. On the Customize a Web Menu or Procedure page (`twbkwmnu.P_CopyToLocalPgWebMain`), uncheck the **Enabled Indicator**.

8. Select the **Submit Changes** button.

9. Repeat these steps for each menu link you wish 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 (SOAATRK) 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 (SOAATRK) and the Attendance Tracking Meeting Rules Page (SOAATMT).

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 module to the Banner Student 9.x Attendance Tracking application.

Data migration is done automatically as part of the upgrade process. Data is migrated from the ESC Attendance Tracking Repeating Table (SKRATTR) to the Section Meeting Times Repeating Table (SSRMEET) and the Student Attendance Tracking Recording Table (SORSATR).

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 ssrmeet_surrogate_id,
       skrattr_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,
          skrattr_auth_ind,
          skrattr_comment,
          skrattr_data_origin
FROM   skrattr,
        ssrmeet
WHERE  ssrmeet_term_code = skrattr_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)
    )
/
```

Appendix - 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

The following Registration administrative pages are delivered in this release:

- Attendance Tracking Rule Setup Page (SOAATRK)

- Attendance Tracking Meeting Rule Setup Page (SOAATMT)

Configure Page Components

You can use this tool to customize delivered user interface common components and add new common components to the Registration administrative pages. 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*.

Tool	Version	Availability
Configure Page Components - Administrative Applications	9.0	Embedded

Domain Extension Tool

You can use this tool to make changes to the domains 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

Additional documentation

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

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.

Available domains

The following domains are included in the Attendance Tracking application. 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.AttendanceTracking MeetingRule	SORATMT	• fetchBySectionMeetingTimeId • fetchBySectionMeetingTimeIds	• fetchBySectionMeetingTimeId(Long sectionMeetingTimeId) • fetchBySectionMeetingTimeIds(List <Long> sectionMeetingTimeIds)
SOAATMT	net.hedtech.banner.student. overall.SectionAttendance TrackingRuleView	SVQ_SOVACRN	• fetchByTermAndCourseReference Number	• fetchByTermAndCourseReference Number(String term, String crn)
SOAATRK	net.hedtech.banner.student overall.AttendanceTracking Rule	SORATRK	• fetchAllByTermPartOfTerm SubjectCourseNumberAndCRN • fetchByTerm	• fetchAllByTermPartOfTermSubject CourseNumberAndCRN(String term, String partOfTerm, String subject, String courseNumber, String courseReferenceNumber) • fetchByTerm(String termCode)

Limitations of page customization

Here is a list of Configure Page Components tool known issues.

- When radio group button labels are modified, the information text for each option defaults to *null*.

- The **Insert** button disappears when the first column of the Listbox is hidden using the Configure Page Components tool.

- The width attribute of a text box in the tool should be disabled until the **Multiline** checkbox is selected, and the number of lines is greater than or equal to *1*.

- When you press the Alt+U shortcut key multiple times, multiple Configure Page Components tool windows are opened.

- In Data Masking, the component in the Listbox is never marked *as masked*.

- When the Multiline box is converted to a Text Box, it always reverts back to a Multiline box.

- When you click the **Close** button in the Configure Page Components tool, the warning pop-up message does not appear.

- In all browsers except Chrome, for the Arabic locale (Right To Left) in the tool, when you select the **Item** section, the arrow disappears for all records when expanded for one record.

- When you press the **Escape** button, the Configure Page Components tool does not close.

- A warning message appears when you click on the **Cancel** button, even when there has been no change in the Configure Page Components tool.

- The **F9** key does not work for the newly added Lookup fields.

- When you click on the **Revert All** button, the **Added as** field does not revert back to the text `Baseline`, until the page is reloaded.

- Changes are not reflected in the Configure Page Components tool until it is reloaded.

- The spinner number cannot save a Null value in the Configure Page Components tool.

- You cannot make the Read Only fields editable using the Configure Page Components tool.