Faculty and Advisor Self-Service Release Guide

Release 8.0
April 2008

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Revision History Log

Publication Date	Summary
April 2008	New version that supports 8.0 software.

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Think before you print.

Faculty and Advisor Self-Service 8.0 Release Guide

Contents

Introduction

This release guide documents Release 8.0 of Banner Faculty and Advisor Self-Service. Release 8.0 includes enhancements, RPEs, and problem resolutions.

Enhancements for 8.0

This document describes the following enhancements, which are new for Release 8.0.

Internationalization

The Internationalization enhancement supports global naming and address standards. Bio-demographic fields have been expanded in Faculty and Advisor Self-Service to accommodate US and non-US standards.

Self-Service Graduation Application

This enhancement provides self-service graduation application functionality for eligible students. Eligibility is determined based on existing learner and outcome curriculum records. The graduation application processing reviews the submitted applications and controls the creation of outcome records. Degree records can also be created on demand in self-service.

Catalog Extract and Load

This enhancement includes extract and load processes allowing an institution to extract catalog records from another institution and then automatically load those records into their own database.

Incomplete Grade Processing Automation

This enhancement allows an institution to automatically assign incomplete grade codes when students have not completed the coursework in the designated/extended timeframe. When final grades need to be assigned as default, replacement, final grades, this new processing recognizes incomplete grade code values and automates the default of the final grades.

Waitlist Automation

This enhancement provides a way to move students from waitlist queues to registration in sections as seats become available. Waitlists can be prioritized and reordered. Notification of available seats can be performed online or in batch.

Minimum/Maximum Registration Hours

This enhancement is part of the changes made to registration seats processing for Concurrent Curricula.This enhancement provides the ability to use expanded hours rules

for minimum and maximum registration hours and to use all the curriculum elements for registration hours processing.

Miscellaneous Enhancements

The following enhancements are summarized in this section:

- *PIN Maintenance*
- *Documentation Changes*

Cumulative Documentation

This document provides detailed information about the Faculty and Advisor Self-Service 8.0 release only. Faculty and Advisor Self-Service 8.0 is a cumulative release that also includes enhancements, RPEs, and problem resolutions delivered in the Faculty and Advisor Self-Service 7.1, 7.2, 7.3, 7.3.1, 7.3.2, 7.3.3, and 7.4 releases. For complete documentation about these interim releases, please refer to the interim release guides identified in the following table.

Release Number	Contents	Release Date
7.1	Miscellaneous Enhancements and Problem Resolutions	May 2005
7.2	Concurrent Curricula - Phase 3	October 2005
7.3	Problem Resolutions	May 2006
7.3.1	Problem Resolutions	October 2006
7.3.2	Miscellaneous Enhancements and Problem Resolutions	February 2007
7.3.3	Problem Resolutions	May 2007
7.4	Problem Resolutions	August 2007

1 Internationalization - Functional

The Banner system is used by higher education institutions worldwide. As Banner is enhanced and modernized, one major initiative is to make the system more adaptable for use in different countries and with different languages. This ongoing effort is called internationalization (and often abbreviated I18N). Internationalization reduces the amount of custom modifications required to make Banner usable for clients in various countries.

For this release, several major changes were made to support internationalization.

Unicode Support

With this release, Banner supports the Unicode international character set through the character standard UTF8. As a part of the installation process for Release 8.0, Banner's Oracle database is converted to the UTF8 standard.

Additional IDs

A new table, the Additional Identification Table (GORADID), allows you to store any number of extra IDs for a person. Each Additional ID must be assigned an ID Type. You can set up Additional ID Types using the new validation form and table GTVADID.

A new **Additional ID** tab on the SPAIDEN form displays the new Additional ID information. See the *Banner Student 8.0 Release Guide* for more information.

Enhanced Fields

For this release, many fields have been expanded on self-service pages. These fields can now accommodate longer data values that might be needed. The types of fields that have been expanded include the following:

- Name
- Address
- Telephone number
- E-mail address

- ID
- Currency amount
- Currency rate

For complete information about I18N, including detailed information about changes to many Banner General objects, refer to the *Banner General 8.0 Release Guide*.

2 Self-Service Graduation Application - Functional

The new Self-Service Graduation Application functionality allows users to view degree information in academic history via the web.

Please refer to the *Banner Student 8.0 Release Guide* and the *Student Self-Service 8.0 Release Guide* for more information on this enhancement.

The rest of this section discusses the following:

New Web Page

The following page has been added for the Self-Service Graduation Application enhancement:

Graduation Application (bwlkgrad.p_view_gradapp)

This page is used to review the details of graduation applications that have been submitted. Inactive applications are not displayed.

Web Page Fields

Item	Description/Source Information
Name	Student's name
Application Number	One-up sequence number assigned to the application.
Request Date	Date on which the student submitted the application.
Application Status	Status of the application.
Application Status Date	Date on which the status of the application last changed.

Web Page Fields

Item	Description/Source Information
Date	Date of the selected ceremony.
Attend Ceremony	Indicator for whether the student plans to attend the ceremony.
First Name	Student's first name to be printed on the diploma.
Middle Name	Student's middle name to be printed on the diploma.
Last Name	Student's last name to be printed on the diploma.
Suffix	Student's suffix to be printed on the diploma.
Street Line 1 Street Line 2 Street Line 3	Up to three lines for the street address.
City	City for the street address.
State or Province	State or province for the street address.
Zip or Postal Code	ZIP or postal code for the street address.
Nation	Nation for the street address.
Curriculum name	Name of the curriculum.
Degree (untitled)	Name of the degree (such as *Bachelor of Arts*).
Level	Student level associated with the current active curriculum selected for the graduation application.
Program	Name of the program associated with the current active curriculum selected for the graduation application.
College	Name of the college associated with the current active curriculum selected for the graduation application.
Campus	Name of the campus associated with the current active curriculum selected for the graduation application.

Web Page Fields

Item	Description/Source Information
Major and Department	Name of the major and department associated with the current active curriculum selected for the graduation application. If no department is associated with the current active curriculum selected for the graduation application, the field label says only **Major**. This field is displayed multiple times if there are multiple majors.
Major Concentration	Name of the concentration associated with the major for the current active curriculum selected for the graduation application. This field is displayed multiple times if there are multiple major concentrations.
Minor	Name of the minor associated with the current active curriculum selected for the graduation application. This field is displayed multiple times if there are multiple minors.
Concentration	Name of the base concentration for the current active curriculum selected for the graduation application. This concentration is not attached to any major. This field is displayed multiple times if there are multiple concentrations.
Other field of study	Name of any other field of study associated with the current curriculum selected for the graduation application. This field is displayed multiple times if there are multiple other fields of study.

Setup Requirements

This page has no setup requirements.

Updates to Banner

This page does not update information in the Banner database.

Links to Other Web Pages

This Link	Action
Student's name	Goest to the View Student Addresses and Phones page (`bwlkosad.P_FacSelectAtypView`).
Academic Transcript	Goes to the Academic Transcript Options page (`bwlkftrn.P_FacDispTran`).

Buttons/Icons on This Page

This page does not have buttons to other pages.

Web Menus With Links to This Page

No menus have links to this page.

Changed Menu

The **View Application to Graduate** link has been added to the Student Information menu.

3 Catalog Extract and Load - Functional

Faculty and Advisor Self-Service web pages have been modified to retrieve formatting information from a new internal routine that gives users greater control over how their data is displayed without having to support local modifications. Using new WebTailor functionality, you can now define the text of the label for certain data elements and specify whether the labels precede or follow the data elements. You can also choose to suppress certain data elements from being displayed.

This enhancement also addresses the following RPEs:

- CMS-RPE33680
- CMS-RPE34191
- CMS-RPE34192

The following new Web Tailor Information Text internal routines have been delivered with this release.

- Routine `bwckctlg.catalog_label_text` allows you to define values for each course data element (that is, field label or link text) displayed on the Catalog Entries page (`bwckctlg.p_display_courses`).
- Routine `bwckschd.schedule_label_text` allows you to define values for each class data element that is displayed on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`).

Using these routines, you can specify whether text is to appear before the data by defining a prefix, after the data by defining a suffix, or both. You can also suppress any of the data elements from being displayed on the page. See “New Tasks” on page 18 for step-by-step procedures for performing these tasks. The seed data delivered in these routines matches the field labels originally delivered for the pages. Refer to the *Faculty and Advisor Self-Service User Guide* for these values.

Also, seed data are delivered to control how the link called “View Catalog Entry” displays. This link displays near the bottom of each section record. Clicking on it takes the user the catalog details for the course. To suppress display of the “View Catalog Entry” link, simply null out its information text value.

The rest of this section discusses the following topics:

New Tasks

This section provides step-by-step procedures for the following tasks:

Change Data Element Names for the Catalog Entries Page

This procedure explains how to change the name (field label) of a data element on the Catalog Entries page (`bwckctlg.p_display_courses`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckctlg.catalog_label_text**.
4. Select the *PREFIX* or *SUFFIX* item, as desired, for the data element to be changed.
5. Enter the desired value in the **Information Text** field.
6. Click **Submit Changes**.

Suppress Data Elements from the Catalog Entries Page

This procedure explains how to suppress a data element from appearing on the Catalog Entries page (`bwckctlg.p_display_courses`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.

3. Select **bwckctlg.catalog_label_text**.
4. Select the *PREFIX* item for the data element to be suppressed.
5. Delete the value in the **Information Text** field.
6. Click **Submit Changes**.
7. Select the *SUFFIX* item for the data element to be suppressed.
8. Delete the value in the **Information Text** field.
9. Click **Submit Changes**.

Display Data Elements on the Catalog Entries Page

This procedure explains how to display a data element on the Catalog Entries page (`bwckctlg.p_display_courses`) that has previously been suppressed.

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckctlg.catalog_label_text**.
4. Select the *PREFIX* or *SUFFIX* item, as desired, for the data element to be displayed.
5. Enter the desired value in the **Information Text** field.
6. Click **Submit Changes**.

Note

If desired, you can specify values for both prefix and suffix. ■

Change Sections Link Text on the Catalog Entries Page

This procedure explains how to change the text of the Sections link on the Catalog Entries page (`bwckctlg.p_display_courses`).

Note

All Sections for this Course is the delivered value for this link, but you can change it. ■

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.

3. Select **bwckctlg.catalog_label_text**.
4. Select **SECTIONS**.
5. Enter the desired text in the **Information Text** field.
6. Click **Submit Changes**.

Suppress Sections Link from the Catalog Entries Page

This procedure explains how to suppress the Sections link from appearing on the Catalog Entries page (`bwckctlg.p_display_courses`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckctlg.catalog_label_text**.
4. Select **SECTIONS**.
5. Delete the value in the **Information Text** field.
6. Click **Submit Changes**.

Display Sections Link on the Catalog Entries Page

This procedure explains how to display the Sections link on the Catalog Entries page (`bwckctlg.p_display_courses`) if it has previously been suppressed.

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckctlg.catalog_label_text**.
4. Select **SECTIONS**.
5. Enter *All Sections for this Course* (or any other desired text) in the **Information Text** field.
6. Click **Submit Changes**.

Change Data Element Names for the Class Schedule Listing Page

This procedure explains how to change the name (field label) of a data element on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_label_text**.
4. Select the *PREFIX* or *SUFFIX* item, as desired, for the data element to be changed.
5. Enter the desired value in the **Information Text** field.
6. Click **Submit Changes**.

Suppress Data Elements from the Class Schedule Listing Page

This procedure explains how to suppress a data element from appearing on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_label_text**.
4. Select the *PREFIX* item for the data element to be suppressed.
5. Delete the value in the **Information Text** field.
6. Click **Submit Changes**.
7. Select the *SUFFIX* item for the data element to be suppressed.
8. Delete the value in the **Information Text** field.
9. Click **Submit Changes**.

Display Data Elements on the Class Schedule Listing Page

This procedure explains how to display a data element on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`) that has previously been suppressed.

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_label_text**.
4. Select the *PREFIX* or *SUFFIX* item, as desired, for the data element to be displayed.
5. Enter the desired value in the **Information Text** field.
6. Click **Submit Changes**.

Note

If desired, you can specify values for both prefix and suffix. ■

Change Catalog Link Text on the Class Schedule Listing Page

This procedure explains how to change the text of the Catalog link on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`).

Note

View Catalog Entries is the delivered value for this link, but you can change it. ■

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_label_text**.
4. Select **CATALOG**.
5. Enter the desired text in the **Information Text** field.
6. Click **Submit Changes**.

Suppress Catalog Link from the Class Schedule Listing Page

This procedure explains how to suppress the Catalog link from appearing on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_label_text**.
4. Select **CATALOG**.
5. Delete the value in the **Information Text** field.
6. Click **Submit Changes**.

Display Catalog Link on the Class Schedule Listing Page

This procedure explains how to display the Catalog link on the Class Schedule Listing page (`bwckctlg.p_disp_listcrse` or `bwckschd.p_get_crse_unsec`) if it has previously been suppressed.

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_label_text**.
4. Select **CATALOG**.
5. Enter *View Catalog Entry* (or any other desired text) in the **Information Text** field.
6. Click **Submit Changes**.

Customize Field Labels on the Course Catalog Search Page

This procedure explains how to customize the labels on the Course Catalog Search page (`bwckctlg.p_disp_cat_term_date`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckctlg.catalog_search_label_text**.
4. Select the link of the label to be changed.
5. Enter the desired text in the **Information Text** field.
6. If desired, select an image from the pull-down list in the **Image** field.
7. If desired, add additional text in the **Comment** field.
8. Click **Submit Changes**.

Customize Field Labels on the Class Schedule Search Page

This procedure explains how to customize the labels on the Class Schedule Search page (`bwckgens.p_sel_term_date`).

1. Access Web Tailor.
2. Select **Information Text** from the Web Tailor Menu.
3. Select **bwckschd.schedule_search_label_text**.
4. Select the link of the label to be changed.
5. Enter the desired text in the **Information Text** field.
6. If desired, select an image from the pull-down list in the **Image** field.
7. If desired, add additional text in the **Comment** field.
8. Click **Submit Changes**.

Changed Web Pages

Catalog Entries (bwckctlg.p_display_courses)

The following links have been added to this page. This link behaves differently from those links in the Schedule Types line that it does not limit the sections displayed to a specific Schedule Type. Users can choose to display both the Schedule Types line and the "All Sections for this course" line, or either one independently.

Links to Other Web Pages

This Link	Action
All Sections for this Course	Goes to the Class Schedule Listing page (`bwckctlg.p_disp_listcrse`) **Note:** This link is displayed only if one more than one section has been defined for the course for the selected term.
XML Extract	Redisplays the page in XML format. The XML data can then be saved to the user's desktop for a variety of purposes.

The **XML Extract** link calls the new Course Catalog Extract API (`sp_catalog_export`) to determine which data elements to pull from the database.

Figure 1 on page 26 shows a sample Catalog Entries page, and Figure 2 on page 27 shows the same page rendered in XML after the **XML Extract** link is clicked.

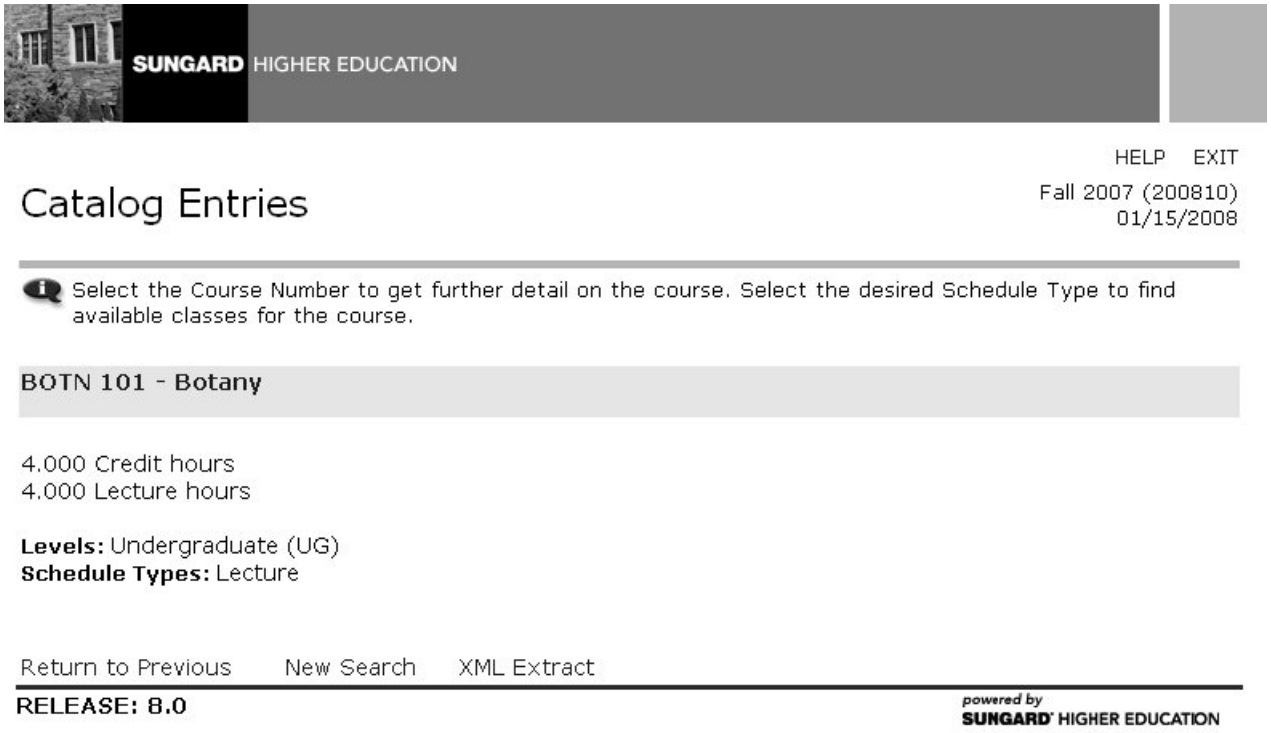

Figure 1: Catalog Entries page sample

```
<?xml version="1.0" encoding="UTF-8" ?>
- <CrseCat:CourseCatalog xsi:schemaLocation="urn:org:pesc:sector:CourseCatalog:v1.0.0
  CourseCatalog_v1.0.0.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:CrseCat="urn:org:pesc:sector:CourseCatalog:v1.0.0">
  - <Source>
    - <Organization>
        <OrganizationName>SUNGARDHE University</OrganizationName>
        <FICE>SCTXML</FICE>
      - <Contacts>
        - <Address>
            <AddressLine>SUNGARD</AddressLine>
            <AddressLine>Four Country View Road</AddressLine>
            <AddressLine>Great Valley Corporate Center</AddressLine>
            <City>Malvern</City>
            <StateProvince>Pennsylvania</StateProvince>
            <PostalCode>19355</PostalCode>
            <CountryCode>US</CountryCode>
          </Address>
        </Contacts>
      </Organization>
    </Source>
  - <CourseInventory>
      <CourseSubjectAbbreviation>BOTN</CourseSubjectAbbreviation>
      <CourseNumber>101</CourseNumber>
      <CourseShortTitle>Botany</CourseShortTitle>
      <CourseLongTitle>Botany</CourseLongTitle>
      <CourseEffectiveDate>199408</CourseEffectiveDate>
      <CourseCreditBasis>Regular</CourseCreditBasis>
      <CourseCreditUnits>Semester</CourseCreditUnits>
      <CourseCreditMinimumValue>4</CourseCreditMinimumValue>
    - <CourseLevel>
        <CourseLevelCode>UG</CourseLevelCode>
        <CourseLevelDescription>LowerDivision</CourseLevelDescription>
      </CourseLevel>
    </CourseInventory>
  </CrseCat:CourseCatalog>
```

Figure 2: Catalog Entries XML extract

Class Schedule Listing Page (bwckctlg.p_disp_listcrse or bwckschd.p_get_crse_unsec)

The text of the **View Catalog Entry** link can now be modified using the Web Tailor Information Text routine `bwckschd.schedule_label_text`.

4 Incomplete Grade Processing Automation Enhancement - Functional

This enhancement allows an institution to automatically assign an incomplete grade code for a course when a student has not completed the coursework in the designated timeframe. This processing assumes a course has been extended to help the student finish the assignments. Extensions can be varied in length due to level (undergraduate or graduate), circumstances (illness or family emergency), research opportunities, or institution policy. Regardless of the nature of the extension, grades of "incomplete" require closure.

When an incomplete grade has been assigned, it indicates that the course has not been finished. However, a final grade may need to be assigned as a default final grade. The default final grade is a replacement grade for the incomplete grade that is assigned if no manual intervention occurs by the time the extension end date is reached. This new processing recognizes incomplete grade code values and automates the conversion of the final grades.

This enhancement contains three main components: the grade collection process and the corresponding rules, the automated processing of unreconciled, incomplete grades, and the display of the incomplete grades.

Incomplete grade replacement is displayed in Student baseline and self-service.

#CMS-RPE24261 is delivered with this enhancement. #CMS-DFCT103896 is resolved with this enhancement.

Please refer to the *Banner Student 8.0 Release Guide* for more information on this enhancement.

The rest of this section discusses the following topics:

Processing

To use this new processing, your institution should review any existing policies regarding the automation of incomplete grades or plan to define such policies. The new SHAINCG form (SHRINCG table) is used to create incomplete grade rules and existing forms have been modified to track default (replacement) grade and extension date information.

The new SHRCINC process is used to automatically change the grade from incomplete to the default final grade on the assigned date. This process examines the date on which the incomplete grade is set to expire, and if that date has been reached or exceeded makes the appropriate grade change. If the incomplete work has been made up and the incomplete grade has been changed through normal Banner grade change processes, the default final grade would have been deactivated as part of the grade change, and no further action is taken.

The Grade Roll to Academic History (SHRROLL) has been modified to roll the incomplete final grade and the extension date from the class roster to history. The process also validates that the incomplete grade is an active grade code for the same level as the final grade that is being replaced.

The self-service grade lookup displays the default, incomplete, final (replacement) grade, the expiration date, and potentially an associated comment when the student has an incomplete grade in any course. The comment, if one exists, identifies whether the extension date is constrained to be less than or equal to, or greater than or equal to the system default extension date.

When an incomplete grade is assigned as the grade for a student in any course, the system will:

- Default and require a replacement grade that the incomplete grade will be converted to on a specified future date, if the incomplete is not changed, and a new grade has not been assigned through normal grade change processes.
- Default and require the date on which the incomplete grade will expire and the default, replacement, final grade will be assigned. (A default expiration date is needed if a date has not been entered for the default replacement grade. Default grades and dates are populated automatically by the new process and can be changed by instructors, if the grade rule values are set to grant that permission.)

New fields for **Incomplete Final Grade** and **Extension Date** have been added to SFASLST and SFAALST. The **Incomplete Grade Ind** and **Incomplete Grade Default** fields have been added to SHAGRDE. The new **Incomplete Final Grade** field has been added to SHATCKN. The **Incomplete Final Grade** fields are enabled for input based on the setting of the **Override Grade** field on SHAINCG. The value displayed is the default from the SHRGRDE table. It can be overridden by the instructor, if that permission has been granted on the incomplete grade rule. A value is required for the **Incomplete Final Grade** field when an incomplete grade is entered for a student.

The **Extension Date** field determines the expiration date, after which the replacement grade is eligible to become the final grade. This field always displays a value, based on the part-of-term data for the term on SOATERM. An extension date can be defined for a part-of-term, the full term, or neither. If no extension date has been defined for the part-of-term that matches the course, the process checks for an extension date for the full term, and if that is not found, then the end date for the full term is used. The extension date for a student can only be changed or overridden when the **Override Grade Date** radio group is set to allow that on the incomplete grade rule. The **Override Grade Date** radio group can be set to: allow any date, not allow any date override, restrict the date to on or before the default extension date, or restrict the date to on or after the default extension date.

Processing for incomplete grade entries requires that:

- A grade code value has been entered which passes the checks for being a legitimate grade and grade mode for this course.
- The entered grade code cannot be another incomplete grade type.
- The date is valid and complies with the value set for the incomplete grade rule.

Grade Collection

Grade code values that are identified as incomplete grade types are maintained within the Grade Code Maintenance Table (SHRGRDE). Multiple grade code values may be defined as incomplete, such as “incomplete-passing” and “incomplete-failing”. Grades are entered in SFASLST, SFAALST, or in Banner Faculty and Advisor Self-Service. When final grades have been entered, the incomplete grade rules need to be checked, as well as the grade code values. The automated process checks the effective term records to see if incomplete grade processing is active for the term.

The process first searches for the most current rule on or before the grading term with a matching level. If none is found, then it searches for the most current rule on or before the grading term where no level is specified. That rule will be the determining processing rule. If the **Incomplete Grade Processing** checkbox is not checked (*N*), then incomplete grade processing is inactive (turned off), and all grades function as non-incomplete grades.

A default term rule can be set up for automated incomplete grade processing. You can also define multiple default rules within the effective term that differ by level. When incomplete grade processing is active (turned on) and incomplete grades have been assigned and rolled to history, the default final grade will be substituted as the final grade during the automated process, in the case that the coursework has not been completed and the grade has not been manually updated by the instructor. The instructor can override the default final grade when it has been assigned and before it is rolled, if override permission has been granted.

Even if grade codes have been defined on SHAGRDE as incomplete grades, along with default, incomplete, final grades, those default, incomplete, final grades and extension dates will not be implemented on student grade records when incomplete grade processing

is inactive (turned off) for the effective rule. Only final grade codes will be recorded. Automated processing checks to see if an incomplete grade has been entered on a student's record (an incomplete grade is in the **Final Grade** field on SFAALST). The grade is determined to be incomplete when the **Incomplete Grade Ind** on SHAGRDE is checked (set to *Y*) for the grade code attribute. The processing checks the term and level of the student for the course to see if they match the rule on SHAINCG for the effective term.

When incomplete grade processing is active for a rule for one or more levels in a term, it may not necessarily be active for all levels. Therefore, the process checks the student's level for the course. When incomplete grade processing is inactive for a rule that governs the term and course level for the student, then the fields for incomplete grade processing are skipped. When the rule record is found to be active, the additional fields for incomplete grade processing are processed along with the grade code, if it is has a type of incomplete in SHRGRDE.

If the grade code is incomplete, the process checks the part-of-term dates for the term in which the work is to be completed by the student. Extension expiration dates can be selected on SOATERM for a part-of-term. If the extension date is not set for the matching part-of-term, then processing will search for an extension date for the full term (where part-of-term is 01). If an extension date is not set for the full term, the end date for the full term will be used. Instructors can override the default date extension and shorten or lengthen it as needed, if override permission has been granted.

Identification of Incomplete Grades

Incomplete grades are identified on SHAGRDE using two new fields. The **Incomplete Grade Ind** checkbox is used to specify that the grade code is an incomplete grade. The **Incomplete Grade Default** field displays the default, replacement, final grade for the incomplete grade. The **Incomplete Grade Ind** checkbox should always be checked (set to *Y*) when a default final grade exists. If a user sets the **Incomplete Grade Ind** checkbox without entering a default final grade, faculty members need to have override capabilities to enter the incomplete final grades. The **Incomplete Grade Default** field can be NULL, so an instructor can enter those values.

When a grade record is removed or inactivated, the system checks that the grade is not in use as a default, incomplete, final grade on another active grade record. When a user attempts to delete, remove, or inactivate any grade record on SHAGRDE, a verification check takes place. The check ensures that:

- the grade code is not used as a default final grade on any other active grade code record within SHAGRDE (SHRGRDE) for the same level, and
- the grade code is not used as an incomplete final grade on any Academic History record for its greatest sequence number for current, active grades.

If the check finds that one of these conditions exists, an error message is displayed.

When the user attempts to populate the incomplete final grade code, it validates that:

- The grade code already exists in the SHRGRDE table
- It is active for the level of the incomplete grade for which it is being defined
- It is not the same grade code for which it is being defined
- It is not another incomplete grade code

This criteria controls the pulldown list for the **Incomplete Grade Default** field. The grade code must be:

- Active as of the most recent effective term relative to the grade code entry,
- For the same level as defined on the existing record,
- It cannot be the same grade code value as the grade code value for this record, and
- It cannot be an incomplete grade (that is, the **Incomplete Grade Ind** must be unchecked or set to *N*)

If these conditions are not met, errors will be displayed:

- If you enter a grade code value for the incomplete grade default that is not defined within SHAGRDE as an active grade code for the same level as the final grade code, an error is displayed.
- If you enter the a grade code value for the incomplete grade default that is the same as the final grade code, an error is displayed.

Assignment of Incomplete Grades

Default final grades may be entered or defaulted at the time an incomplete grade code is assigned. If the outstanding coursework is not completed, then the default or replacement final grade will be applied at a point after the expiration date. The defaulted grade does not take into account the effort to date made by the student for the course. The instructor can override the default final grade, if institution policy allows.This capability is maintained in the new SHAINCG rules form and the SHRINCG rules table.

For example, if the coursework has not been completed, then a default grade of "failing" can be assigned. This is an institutional default from the SHRGRDE table. However, at the time grades are entered, the instructor can acknowledge that an individual's efforts to date already meet the criteria for a passing grade, such as a "C", but that this student has not successfully completed all the required work. Consequently, the instructor can override the default, incomplete, final grade from "failing" to a different valid grade code, such as "C", and allow for the completion of the remaining work. Alternatively, institutional preference can be to assign different defaults for different incomplete grade codes within a level, such as incomplete-passing and incomplete-failing.

Assignment of Extension Dates

A date is needed at the time an incomplete grade is assigned, at which point the default final grade is eligible to become the final grade, as the remaining work has not been completed by the extension date expiration. The default extension date is stored with the term setup date for terms and parts-of-term on SOATERM. (Extensions dates can be set at the part-of-term level.)

If there is no extension date for the matching part-of-term, the process checks for a full term value designated as part-of-term 1. If part-of-term 1 has no specified extension date, the process uses the end date for the full term. The rules on SHAINCG determine if the instructor can change the extension date for the incomplete grade.

The new **Incomplete Extension Date** field in the Base Part of Term block on SOATERM works as follows:

- When the process determines that the student is to be included, it checks the extension date using the part-of-term for the CRN. The course part-of-term (SSBSECT_PTRM_CODE) needs to match the part-of-term for the rule (SOBPTRM_PTRM_CODE). The corresponding term (SSASECT_TERM_CODE) needs to match the term for the rule (SOBPTRM_TERM_CODE).
- If an extension date (SOBPTRM_INC_EXTENSION DATE) exists for the part-of-term that matches the CRN, the process uses it as the default extension date. If no extension date exists for the matching part-of-term, then the process checks for an extension date on the full term. If no extension date exists, the end date (SOBPTRM_END_DATE) of the full term is used as the expiration date. If the part-of-term for the CRN is null, as for open learning courses, a value of *1* is substituted which reverts to the full term value.

Assignment of Comments for Incomplete Grades

Grade comment codes can be entered on SFASLST and SFAALST for any grade code using the list of valid values from STVGCMT. Comments can also be entered for incomplete grades with associated comment codes on STVGCMT to justify the incomplete status. The grade comment code on STVGCMT can be up to seven characters, and the accompanying description can be up to 200 characters. Generic situations can be defined here for things such as family leave, illness, or other events.

Building Rules for Incomplete Grade Processing

Rules for grade collection are determined by term and level. If your institution has not used incomplete grade automation, a delivered effective term value of *000000* can be used. Multiple rules can be established for a term, using different levels for each rule. If your rules have always been the same for all levels, then only one rule is needed for each effective term. When rules vary by level, a separate rule is needed to distinguish that rule from the default setting for all unspecified levels. The level is NULL when the rule pertains to all unspecified levels.

For example:

- The initial overall (default) rule for the institution has a term value of *000000* and a level value of NULL. Automated incomplete grade processing has been inactive.
- A single processing rule exists for term 200810.
- Term 200910 has a rule for *GR* (graduate level), and no other new rules.
- Term 200930 has a rule for *DOC* (doctorate level), and no other rules. Other rules will revert to the rule for the most recent effective date that includes the associated level.

Rule	Effective Term (required)	Level (required)	Active/Inactive	Override Grade
1	000000	NULL	Inactive	
2	200810	NULL		
3	200910	GR		
4	200930	DOC		
5	201010	NULL		

Example 1

All processing for term 200720 reverts to record (1), as no entry exists for 200720, and no entries have been added since the seed data rule for 000000. No distinct rules by level exist. Incomplete grade processing remains inactivated.

Example 2

All processing for term 200810 reverts to record (2), as a rule exists that takes effect in 200810. No distinct rules by level exist. Therefore, all levels in 200810 are governed by record (2).

Example 3

All processing for term 200820 reverts to record (2), as no entry exists for 200820. No distinct rules by level exist, so all levels revert to the rule for 200810, which is the last effective rule.

Example 4

All processing for the graduate level of GR, starting in term 200910, reverts to record (3). However, all processing for non-graduates in term 200910 reverts to record (2), as no prior rules by level exist, so all levels revert to the rule for 200810, which is the last effective rule.

Example 5

All processing for the doctoral level of DOC, starting in Term 200930, reverts to record (4). All processing for graduate level GR continues to revert to record (3), and all other levels in term 200930 revert to record (2).

Example 6

All processing for all levels except DOC and GR, starting in Term 201010, reverts to record (5). DOC continues to revert to record (4), which is the most recent record for that level, and GR continues to revert to record (3), which is the most recent record for that level.

Note

If a rule entry is set so that incomplete grade processing is Inactive, then the **Override Grade** and **Override Grade Date** fields will have no effect, as incomplete grades within SHAGRDE will be treated as non-incompletes. However, the **Web Display** field on SHAINCG may still pertain to coursework that could have been completed for a different level or in a different time period during which incomplete grade processing may have been active.

Automation of Grade Changes

A new process is delivered for this enhancement that automates the updating of grade changes in Academic History, once extension dates for the completion of coursework have expired. This automated process works with the existing grade roll processing. Grades are still posted to the class roster or the attendance roster and are then rolled to history, including any incomplete grade codes. The roll process can be accomplished manually on SFASLST or SFAALST or by running SHRROLL. When the grades are rolled to history, the grade code values cannot be modified, as they could on the roster before they were rolled. The new **Incomplete Final Grade** and **Extension Date** fields are rolled to history with incomplete grades.

Grades are entered in baseline or in self-service, and grade changes may be made until the grades are rolled. After grades are rolled, grade changes can only be recorded in Academic History on SHATCKN. Incomplete grades are captured along with default final grades and extension dates on the class roster and are then rolled to history with the courses. The incomplete final grade and extension date can then be maintained on SHATCKN, and those changes are not restricted by the override permissions on the grade rule, (as SHATCKN is for restricted administrative override users).

This new SHRCINC process can be run as needed to update default replacement grades for incomplete courses with expired extensions to final grades for those courses. It is run by term, and/or level, and/or CRN. Multiple terms can be used. Reason codes (STVGCHG) can be entered to show why the grade was changed, and the reason is added to each grade entry. Grade comment codes (STVGCMT) can also be added to each grade entry. The process checks for incomplete grades (default, incomplete, final grades) and

compares the system date to the grade extension date to find the expired records. You have the option of running this process in Audit Mode and then Update Mode. You can also use a future date option in Audit Mode to check the extension dates that are on file.

When a grade change is needed (SHRCINC is run in Update Mode), a new grade entry is made for the course in Academic History for the final grade. A second grade entry is automatically created after the first new entry, if grade substitution is necessary. For example, an instructor assigns a student a final grade of "Incomplete" and a default, replacement, final grade of "C". However, the student is taking the course as “Pass/Fail”. The process checks the grade and the extension expiration date, and then creates a new grade change entry with a final grade of "C". It checks whether a grade substitution needs to take place. If so, then a second grade change entry is created with the final grade of "P" and a reason code of "SG". The reason code of "SG" must be used for the grade substitution, as it is a hardcoded. No grade comment code is attached for the grade substitution entry.

When run in Update Mode, you can recalculate the GPA. (You can also defer recalculating the GPA and perform that task when you want to after checking grades on SHATCKN and then running the Calculate GPA Report (SHRCGPA) in Collector Mode.) Consider that when the GPA is recalculated, you may need to send out revised grade mailers (SHRGRDE). Check that a grade mailer entry exists in the collector table with a request type of *R* (revised) and a print status of NULL for each student with grade changes.

When the GPA is recalculated using SHRCINC, only students that have been selected for an automated grade change resulting from an incomplete grade will be processed. The students that are processed will have their entire GPAs updated, not just the grades that are changing due to default grades. If any uncalculated grades exist for those students, those graded will be updated during the process.

SHRCINC also populates the SHRCGPA collector table used by SHRCGPA report. When SHRCGPA is run in Collector Mode, it selects records that have been defined for processing whether table entries have been populated by SHRRPTS or SHRCINC.

Display of Grades in Self-Service

Grades are displayed in Banner Student Self-Service in the Final Grades page. When the **Web Display (Indicator)** on SHAINCG is checked (set to *Y*) for the rule, incomplete grades are displayed in self-service within a separate data block with the associated extension dates and the default, replacement, final grades. In Banner Faculty and Advisor Self-Service, instructors can also enter and override the incomplete final grade for the incomplete grade, as well as override the default date, if permission has been granted on the governing incomplete grade processing rule.

Processing Results

Grades posted to the class roster are stored in the SFRSTCR table prior to being rolled to history. This table now handles the incomplete final (replacement) grade and the incomplete grade extension date. The existing grade comment code (STVGCMT) can be used for grade comments for incomplete grades. If a final grade is changed and posted on the class roster, and the prior grade was an incomplete grade, the incomplete final grade (SFRSTCR_GRDE_CODE_INCMP_FINAL) and extension date (SFRSTCR_INCOMPLETE_EXT_DATE) values will be removed. These fields can be repopulated with the entry of a new incomplete grade code. The incomplete final grade can be changed before the roll takes place, if the rule allows for this (the SHRINCG_INCMP_GRDE_OVER_IND is set to *Y).*

Once the grades have been rolled to history, no changes can be made outside of Academic History, except for updating the grade code comment. If a grade is rolled as an incomplete grade, the associated fields cannot be maintained in Banner Faculty and Advisor Self-Service or on SFASLST (class attendance roster) and SFAALST (class roster).

The SHRTCKG table also now includes the incomplete final (replacement) grade. The existing extension date will be used for incomplete grade date extensions, as well as the existing grade comment code (STVGCMT) for grade comments for incomplete grades.Comments can also be entered on the class roster (SFASLST/SFAALST) and are rolled to history.

When an incomplete grade is rolled to and stored in Academic History, the associated incomplete final grade and extension date values will remain intact on SFRSTCR, and are transferred to history along with other data. SHATCKN now includes a field for the incomplete final grade.

The incomplete final grade and the extension date (as well as grade comment code) can be maintained on the Academic History record for the most current grade entry. However, the incomplete final grades and extension dates are protected or disabled for all records that are not the most current. Since the extension date now triggers the automated processing, this preserves an audit history. Changes to incomplete final grades can be tracked by adding a change reason (STVGCHG) and entering a new replacement grade code. The final grade entry cannot be changed, unless a new grade change entry is created.

New Web Pages

The following pages have been added:

- "Incomplete Grades Summary (bwlkincg.P_FacIncmpGrdSum)" on page 39
- "Incomplete Final Grades (bwlkffgd.P_FacCommitFinGrd)" on page 43

Incomplete Grades Summary (bwlkincg.P_FacIncmpGrdSum)

This page is used to specify the following information for students with incomplete coursework:

- Default final grade
- Extension date

You can view and maintain the default incomplete final grade and extension date for a student that has been assigned an incomplete grade if incomplete grade processing has been activated for the level for which the student is taking the course. The fields on this page are enterable only for faculty members and advisors to whom override privileges have been granted.

If a student's final grade needs to be changed and the grade has not yet been rolled, use the Final Grades page (`bwlkffgd.P_FacFinGrd`) to enter the final grade. The Incomplete Grades Summary page is used only to display and maintain the replacement grade code for an incomplete grade and its accompanying extension date.

Web Page Fields

Item	Description/Source Information
Course title	Course title, subject code, course number, and section number, concatenated and displayed as a hyperlink to the Class Schedule Listing page (`bwckctlg.p_disp_listcrse`). The values come from the following: • Course title as described in the "Long Titles and Descriptions" section of Chapter 1, "Application Overview" of the *Faculty and Advisor Self-Service User Guide* • **Subject** field on the Basic Course Information Form (SCACRSE) • **Course** field on SCACRSE • **Section** field on SSASECT
CRN	Course reference number. The value comes from the **CRN** field on the Faculty Assignment Form (SIAASGN).
Students Registered	Number of students registered in the class.

Web Page Fields

Item	Description/Source Information
Record Number	System-generated record number assigned to the student.
Student Name	Student's name, last name first, displayed as a hyperlink to the View Student Addresses and Phones page (`bwlkosad.P_FacDispAddrView`). **Note:** If the View Student Addresses and Phone page has been disabled, the student name is not displayed as a link. The value comes from the **Name** field on the Class Roster Form (SFASLST).
ID	Student's Banner ID, displayed as a hyperlink to the Electronic Gradebook by Student page (`bwlkegrb.P_FacIDShrmrksProc`) for this student and section.
Credits	Number of credit hours for which the student is taking the class. The value comes from the **Credit Hours** field on SSASECT.
Registration Status	Registration status and date of the activity. This value comes from the SFRSTCR table.
Grade	Student's current grade.
Rolled	Indicates whether the grades have been rolled to Academic History via the Grade Roll to Academic History (SHRROLL) process in Banner.
Incomplete Final Grade	Expected future final grade that will replace the current incomplete grade if the coursework is not completed. This defaults to a value on the Grade Code Maintenance Form (SHAGRDE), but if the **Override Grade** field on the Incomplete Grade Rules Form (SHAINCG) is set to allow overrides, you can change it. The values in the pull-down list are a subset of the values that can be assigned as the final grade, other than incomplete grade codes

Web Page Fields

Item	Description/Source Information
Extension Date	Date by which coursework must be submitted to earn a grade other than the default final grade specified. This defaults to the date specified on SOATERM, but if the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to any value other than *None*, you can change it. If the **Override Grade Date** radio button group on SHAINCG is set to *None*, this field is display only.
Extension Date Constraints	Text specifying any constraints that exist for changing the extension date. • If the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to *None* or *Any*, this field will be blank. • If the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to *Shorten*, this field will display *On or before default date*, and the date can be changed to one on or before the date specified on SOATERM. • If the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to *Lengthen*, this field will display *On or after default date*, and the date can be changed to one on or after the date specified on SOATERM.

Setup Requirements

Item	Description
Term Control Form (SOATERM)	Specify the default extension date in the **Incomplete Extension Date** field in the Base Part of Term block. The extension date may be specified for each part of term, but it does not have to be. If the part-of-term for a CRN is not *1* (full term), and if there is not a default extension date for that part-of-term, the system reverts to the entry for part-of-term 1. If the CRN part-of-term value is *1*, and if there is no specified extension date for 1, the system will revert to the end date for part-of-term 1 as the extension date.

Setup Requirements

Item	Description
Incomplete Grade Rules Form (SHAINCG)	Define the incomplete grade processing rules.

Updates to Banner

Item	Description
Incomplete Final Grade	If gradable components exist for this CRN, an update to a final grades or an incomplete final grade or the extension date made on this page is not reflected in the student's final grade record (SHRCMRK) within the Electronic Gradebook and updates only the registration record (SFRSTCR).

Links to Other Web Pages

This Link	Action
Course title	Goes to the Summary Class List page (`bwlkfcwl.P_FacClaListSum`).
Student name	Goes to the View Student Addresses and Phones page (`bwlkosad.P_FacDispAddrView`).

Buttons/Icons on This Page

Button/Icon	Action
Submit	Updates the SFRSTCR table in Banner and redisplays the page with the assigned grades in the **Grade** fields.
Reset	Clears all entries since the last save and redisplays the page.

Web Menus With Links to This Page

Faculty Services Menu	`bmenu.P_FacMainMnu`

Other Web Pages With Links to This Page

Final Grades	`bwlkffgd.P_FacFinGrd`

Incomplete Final Grades (bwlkffgd.P_FacCommitFinGrd)

This page is used to specify the following information for students with incomplete coursework:

- Default final grade
- Extension date

If incomplete grade processing is activated for the level for which the student is taking the course, this page is displayed when a user assigns an incomplete grade to a student and selects **Submit** on the Final Grades page (`bwlkffgd.P_FacFinGrd`). You can review the default incomplete final grade and extension date on this page. If override privileges have been granted to faculty members and advisors, users can override the final grade and extension date.

Web Page Fields

Item	Description/Source Information
Course title	Course title, subject code, course number, and section number, concatenated and displayed as a hyperlink to the Class Schedule Listing page (`bwckctlg.p_disp_listcrse`). The values come from the following: • Course title as described in the "Long Titles and Descriptions" section of Chapter 1, "Application Overview" of the *Faculty and Advisor Self-Service User Guide* • **Subject** field on the Basic Course Information Form (SCACRSE) • **Course** field on SCACRSE • **Section** field on SSASECT
CRN	Course reference number. The value comes from the **CRN** field on the Faculty Assignment Form (SIAASGN).
Students Registered	Number of students registered in the class.
Record Number	System-generated record number assigned to the student.

Web Page Fields

Item	Description/Source Information
Student Name	Student's name, last name first, displayed as a hyperlink to the View Student Addresses and Phones page (`bwlkosad.P_FacDispAddrView`). **Note:** If the View Student Addresses and Phone page has been disabled, the student name is not displayed as a link. The value comes from the **Name** field on the Class Roster Form (SFASLST).
ID	Student's Banner ID, displayed as a hyperlink to the Electronic Gradebook by Student page (`bwlkegrb.P_FacIDShrmrksProc`) for this student and section.
Grade	Student's current grade.
Rolled	Indicates whether the grades have been rolled to Academic History via the Grade Roll to Academic History (SHRROLL) process in Banner.
Incomplete Final Grade	Expected future final grade that will replace the current incomplete grade if the coursework is not completed. This defaults to a value on the Grade Code Maintenance Form (SHAGRDE), but if the **Override Grade** field on the Incomplete Grade Rules Form (SHAINCG) is set to allow overrides, you can change it. The values in the pull-down list are a subset of the values that can be assigned as the final grade, other than incomplete grade codes
Extension Date	Date by which coursework must be submitted to earn a grade other than the default final grade specified. This defaults to the date specified on SOATERM, but if the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to any value other than *None*, you can change it. If the **Override Grade Date** radio button group on SHAINCG is set to *None*, this field is display only.

Web Page Fields

Item	Description/Source Information
Extension Date Constraints	Text specifying any constraints that exist for changing the extension date. • If the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to *None* or *Any*, this field will be blank. • If the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to *Shorten*, this field will display *On or before default date*, and the date can be changed to one on or before the date specified on SOATERM. • If the **Override Grade Date** radio button group on the Incomplete Grade Rules Form (SHAINCG) is set to *Lengthen*, this field will display *On or after default date*, and the date can be changed to one on or after the date specified on SOATERM.

Setup Requirements

Item	Description
Term Control Form (SOATERM)	Specify the default extension date in the **Incomplete Extension Date** field in the Base Part of Term block. The extension date may be specified for each part of term, but it does not have to be. If the part-of-term for a CRN is not *1* (full term), and if there is not a default extension date for that part-of-term, the system reverts to the entry for part-of-term 1. If the CRN part-of-term value is *1*, and if there is no specified extension date for 1, the system will revert to the end date for part-of-term 1 as the extension date.
Incomplete Grade Rules Form (SHAINCG)	Define the incomplete grade processing rules.

Updates to Banner

Item	Description
Incomplete Final Grade	If gradable components exist for this CRN, an update to a final grades or an incomplete final grade or the extension date made on this page is not reflected in the student's final grade record (SHRCMRK) within the Electronic Gradebook and updates only the registration record (SFRSTCR).

Links to Other Web Pages

This Link	Action
Course title	Goes to the Summary Class List page (`bwlkfcwl.P_FacClaListSum`).
Student name	Goes to the View Student Addresses and Phones page (`bwlkosad.P_FacDispAddrView`).

Buttons/Icons on This Page

Button/Icon	Action
Submit	Updates the SFRSTCR table in Banner and redisplays the page with the assigned grades in the **Grade** fields.
Cancel	Clears all entries since the last save and goes back to the Final Grades page (`bwlkffgd.P_FacFinGrd`). **Note:** Non-incomplete grade changes that were entered on the Final Grades page will have been processed before the Incomplete Final Grades page was displayed, so those changes will be in effect if the **Cancel** button is changed and you return to the Final Grades page.
Reset	Resets all entries to the values that were initially displayed when this page was accessed. **Note:** Non-incomplete grade changes that were entered on the Final Grades page will have been processed before the Incomplete Final Grades page was displayed.

Web Menus With Links to This Page

No menus have links to this page.

Other Web Pages With Links to This Page

No other Web pages have links to this page.

Changed Web Page

Final Grades (bwlkffgd.P_FacFinGrd)

To accommodate the new Incomplete Grades functionality, additional processing now occurs when **Submit** is selected. Grade entries that were changed are validated to determine whether they qualify for incomplete grade processing. To qualify, the following must be in place.

- Incomplete grades must be defined on the Grade Code Maintenance Form (SHAGRDE) for the term and level.
- Rules for incomplete grade processing must be set up on the Incomplete Grade Rules Form (SHAINCG).
- Student must be assigned a grade meeting the above two criteria.

(For details about setting up incomplete grade processing, refer to the *Banner Student 8.0 Release Guide*.)

If incomplete grade processing has not been set up or if no students qualify for it, the processing on this page will continue as previously.

If incomplete grade processing has been set up and students qualify for it, the system displays the new Incomplete Final Grades page (`bwlkffgd.P_FacCommitFinGrd`). See page 43 for more information.

The following new requirements are needed to ensure the incomplete grade processing.

Setup Requirements

Item	Description
Term Control Form (SOATERM)	Specify the default extension date in the **Incomplete Extension Date** field in the Base Part of Term block. The extension date may be specified for each part of term, but it does not have to be. If the part-of-term for a CRN is not *1* (full term), and if there is not a default extension date for that part-of-term, the system reverts to the entry for part-of-term 1. If the CRN part-of-term value is *1*, and if there is no specified extension date for 1, the system will revert to the end date for part-of-term 1 as the extension date.
Incomplete Grade Rules Form (SHAINCG)	Define the incomplete grade processing rules.

The following link has been added to this page.

Links to Other Web Pages

This Link	Action
Incomplete Grades Summary	Goes to the Incomplete Grades Summary page (`bwlkincg.P_FacIncmpGrdSum`).

Changed Menu

The **Incomplete Grades Summary** link has been added to the Faculty and Advisors menu. This link goes to the Incomplete Grades Summary page (`bwlkincg.P_FacIncmpGrdSum`).

5 Waitlist Automation - Functional

Waitlisting is an enrollment management tool that assists in maximizing enrollment numbers in individual course sections. It allows institutions to track excess demand for seats in courses where enrollment limits have been met and then create priority queues to assign seats as they become available due to drops and withdrawals. Students use waitlists to get in line for courses they need to fulfill their requirements. This new automated waitlist processing assists in managing the movement of students from waitlists to active registration statuses through rule and control forms and job submission processes. This processing is also used in self-service registration.

Please refer to the *Banner Student 8.0 Release Guide* for more information on how this enhancement affects self-service processing.

The rest of this section discusses the following topics:

Processing

This enhancement includes updates to existing waitlist and registration functionality to help students to move from waitlisted to registered status, to help institutions configure rules to control waitlist priority, and to support self-service waitlist functions. Waitlist notification is term-based and can be turned on and off by term as needed on the new SOAWLTC form. Similar to the registration error checking on SOATERM, this form provides verification checking and severity warnings for the waitlist function. Additionally, SOAWLTC includes rules to prioritize student waitlists beyond the first-come, first-served ordering that is needed for certain situations. Waitlist processing can also be controlled for an individual CRN using the new SSAWLSC form. Additional new waitlist review forms and processes allow you to review waitlisted students, manually adjustment a student's waitlist priority, and resort the priority order.

Note

Automated waitlist processing is not used with open learning courses.

When a seat becomes available for registration, an email notification is sent to designated individuals. These can include the student, the primary instructor, the primary advisor, and the registrar. The notification email content is configured on SOAELTR for the letter code

defined on GTVLETR with new module code of *F* (Registration) from STVELMT. Notification emails are sent when available seats exist. The time period in which the student must register before the next student is notified is defined on the SOAWLTC form. This automatic notification is performed either online as seats become available or through the new SFRBWLP batch process.

If the time period has expired and the student has not registered for the course, the student is removed from the waitlist. Before the student is removed, the student's registration status is checked to see if it has changed from "waitlisted" to "registered". If it has not, the SFRBWLP batch process will update the student's registration status to *DD* (dropped/deleted), remove the registration record, and then notify the next student on the waitlist. If no more waitlisted students exist, the notification processing stops. The dropped student is not notified of the status change.

Note

The new SFRBWLP batch process must be used to update the expired waitlist notices, even if the **On-line Waitlist Notification** checkbox is checked on SOAWLTC. SFRBWLP should be set up in sleep/wake mode.

Seats become available for notification when the following occurs:

- Another registered student is dropped, and the resulting number of remaining available seats recorded on SSASECT minus the number of unexpired notifications is greater than zero.
- The SSASECT maximum enrollment is increased, and the resulting number of remaining available seats recorded on SSASECT minus the number of unexpired notifications is greater than zero.
- The SFRBWLP process finds a notification that has expired, the entry is removed from the student's list of registered courses, and the resulting number of remaining available seats on SSASECT minus the number of unexpired notifications is greater than zero.

When automated waitlist processing is no longer valid for a term, SFPWAIT is used to clear the waitlists and the notification tables. The new SSRASTZ process can also be used to change the remaining available seats for all CRNs to zero.

Configuring Waitlist Processing

You can define how automated waitlist processing will work at your institution using the new and existing forms and processes. Use the new SOAWLTC form to configure general waitlisting by term.

SOAWLTC provides the following options:

- Turn the automatic waitlist notification process on or off as needed
- Specify whether waitlist notification is performed online or in batch

- Specify the time period in which students must register before the notification expires
- Specify whether students are allowed to see their positions in the waitlist queue
- Specify who will be notified (student, instructor, advisor, and/or registrar)
- Specific letter codes for the various recipients of the notification emails
- Specify waitlist priority rules and waitlist reordering
- Specify section options error checking levels for waitlisting
- Specify whether waitlisted coursework should be included when performing student options error checking
- Specify course characteristics which must be met before priority rules are applied
- Define priority rules which give student populations preferential treatment when waitlisted
- Specify student populations by characteristics that are not allowed to use the waitlist function
- Specify waitlist priority rules and waitlist reordering

If a CRN has special requirements for automated waitlist processing, the waitlist setup defined at the institutional level can be changed at the CRN level for that course. Use the new SSAWLSC form to configure waitlisting by CRN.

SSAWLSC provides the following options:

- Turn error checking on or off as defined on SOAWLTC
- Turn the automatic waitlist notification process on or off as needed
- Specify whether students are allowed to see their positions in the waitlist queue
- Specify the deadline available for the students to move from waitlist to registered status when seats become available.

Letters formats can be configured for specific information types depending on the recipients. You can:

- Configure letter codes on GTVLETR
- Associate the letter module code of *F* (Registration) on STVELMT to the letter codes from GTVLETR
- Build letters on SOAELTR using the information available from the `AS_STUDENT_REGISTRATION_DETAIL` Object:Access view.

Note

If automated waitlist processing is not defined for a term, previous waitlist rules will be used, and the system assumes that waitlist notification is turned off.

Processing Order

Banner Student controls the queue of students (with waitlist registration statuses) that are registered for the CRN and allows a waitlisted student to enroll in the course as soon as a seat becomes available. When a student attempts to register as waitlisted for a CRN, automated waitlist processing occurs as follows:

1. The process considers the setting of the **Automatic Waitlist Notification** checkbox on SOAWLTC and SSAWLSC to see if automated waitlisting is active. When the **Automatic Waitlist Notification** indicator is checked (set to *Y*) on SSAWLSC, this takes precedence over the setting of the indicator on SOAWLTC.

   When no record exists on SOAWLTC, automatic waitlist processing is not performed. Error checking performed for courses with waitlisted students is controlled by the settings on SOATERM, including time conflict checking.

   When a record exists on SSAWLSC or SOAWLTC and **Automatic Waitlist Notification** checkbox is unchecked (set to *N*), automatic waitlist processing is not performed. Error checking performed for courses with waitlisted students is controlled by the settings on SOAWLTC.

Assuming that the **Automatic Waitlist Notification** indicator is checked (set to *Y*), the processing continues as follows:

2. When waitlist exclusion rules have been defined on SOAWLTC, the student's characteristics are compared to the characteristics defined in the rules. If all of the student's characteristics match all the characteristics defined for any of the rules, then the student is not allowed to waitlist the course.

3. The Student Options and Section Options error checking is performed based on the settings defined on the Waitlist Error Checking window of SOAWLTC. If an entry exists on SSAWLSC for the CRN and the **Use Waitlist Registration Error Checking** checkbox is unchecked (set to *N*), no error checking is performed.

4. When no fatal errors are found, an evaluation is performed to match the characteristics of the waitlisted CRN against the characteristics of the entries in the Waitlist Course Selection window on SOAWLTC.

   When a match is found or no entries exist, the student's characteristics are compared to the characteristics defined in the Waitlist Priority Rules window on SOAWLTC. The student's waitlist priority is assigned based on the results of this evaluation.

When no match is found, the student is assigned a priority on a first-come first-served basis.

5. When seat becomes available, two options exist:

   When the **On-line Waitlist Notification** checkbox on SOAWLTC is checked, a notification email is sent to the designated individuals.

   When the **On-line Waitlist Notification** check box is not checked, the notification is sent the next time that the SFRBWLP process is run.

Note

At the time the notification is sent, the expiration date and time are calculated based on the value of the **Waitlist Notification Deadline** field.

6. Prior to the expiration date and time, the student is eligible to enroll in the CRN for which the notification was sent. The Student Options and Section Options registration error checking (as defined on SOAWLTC) are enforced at the time that the student tries to register.

   If the student does not use the available seat, and the notification deadline expires, that student is removed from the waitlist queue by SFRBWLP, and the next student in the waitlist is notified to use the available seat.

   Unless there are more seats available than there are students on the waitlist, no student, other than those who have been notified, is allowed to enroll in the course.

   Other students are only allowed to register as waitlisted if remaining waitlist seats exist.

Waitlist Registration Verification Checking

Normal registration eligibility checking occurs before a student can be added to a waitlist. When a fatal error is received, the student cannot register as waitlisted for the course. If SOAWLTC is not used for a term rule, registration error checking is controlled by the settings on SOATERM. New optional controls can be used as well.

SOAWLTC is used for waitlist registration verification checking and error severity warnings. Section options for severity checking on waitlisted courses include: approvals, capacity, field of study, department, college, level, class, campus, degree, program, student attributes, and cohort. Student options for verification on waitlisted courses include: time conflicts, prerequisites, corequisites, duplicates, and links. The student options functionality on SOAWLTC differs from the functionality on SOATERM. For the student

options, SOATERM controls the severity level of the error, and SOAWLTC controls whether or not to include waitlisted CRNs in error checking.

- When the **Duplicates** radio group is set to *Fatal* on SOATERM, a student can be enrolled in a course and also be waitlisted for a more desirable section of the same course. In addition, a student can be waitlisted for multiple sections of the same course.
- When the **Duplicates** radio group is set to *No Check* on SOATERM, waitlisted courses are not included in the duplicate error checking, and the student can waitlist multiple sections of the same course. In addition, the student can also be enrolled in a section of the same course but could not be enrolled in two sections of the same course.
- When the **Duplicates** radio group is set to *Yes* (in the Include Waitlisted Courses in Student Options Error Checking section) on SOAWLTC, a student can only be waitlisted for one section of a course.

Waitlisted courses are included with registered courses in time conflict error checking based on the setting of the **Time** radio group (in the Include Waitlisted Courses in Student Options Error Checking section) on SOAWLTC. Assuming that the **Time** radio group on SOATERM is set to *Fatal*, the following occurs. Waitlisted courses are checked for time conflicts with registered courses. When the **Time** radio group is set to *No*, you can specify when a course can be waitlisted, if a registered course already exists in that time slot.

- If this radio group is set to *No*, a course can be waitlisted, even if a registered class already exists for that time slot.
- If this radio group is set to *Yes*, a course may not be waitlisted if a registered class already exists for that time slot.

Note

The GTVSDAX rule for *WLTIMECON* is not longer used. Time Conflict checking is now controlled at the term level. If SOAWLTC is not configured, the error checking for time conflicts is based on the setting on SOATERM. ■

The **Links**, **Corequisites**, and **Prerequisites** radio groups (in the Include Waitlisted Courses in Student Options Error Checking section) on SOAWLTC perform error checking as follows.

- When the radio group is set to *No*, verification is performed to check for related coursework.
- When the radio group is set to *Yes*, the verification that all related coursework requirements are met is performed according to the setting on SOATERM. Requirements that apply to waitlisted coursework can be met by either another waitlisted course or a by a registered course. Requirements that apply to registered coursework must be met by other registered coursework.

The the *Fatal*, *Warning*, and *No Check* settings for the Section Options radio groups perform independently of the respective settings on SOATERM.Courses will allow waitlisting if it is appropriate, based on the SOAWLTC settings and the relevant data that is validated for the settings.

The **Use Waitlist Registration Error Checking** checkbox on SSAWLSC is used to turn the Student Options and Section Options error checking criteria on and off for individual CRNs.

- When the field is checked, error checking is performed for the CRN based on the settings on SOAWLTC.
- When the box is unchecked, error checking is not performed.

Note

For Banner Student Self-Service registration, when the SOATERM setting for an option is *Fatal*, setting the respective section option to a lessor error checking level on SOAWLTC does not apply.

For example, if the Department option on SOATERM is *Fatal* and the same option on SOAWLTC is *No Check*, the error checking will only apply to registration records processed on SFAREGS.Since the default processing in self-service is to check the registration status before checking the waitlist status, the fatal registration error from SOATERM will be displayed and will prevent waitlisting.

Registration Verification Checking

When a student is registered as waitlisted, a position on the waitlist is assigned using the waitlist priority rules and first-come, first-served order unless priorities are customized using priority rules or manual adjustments. If the waitlisted student receives an available seat notification, the student can register for the course until the notification deadline has expired. In order to register for the course, the registration status (STVRSTS) must be changed from waitlisted to registered. This can be processed on SFAREGS or in Banner Student Self-Service. If the waitlisted student tries to register for the course during the notification deadline, and a registration error occurs (such as time conflict, prerequisite, corequisite, and so on, as defined on SOATERM), the student's priority on the waitlist is maintained until the defined deadline. This gives students the opportunity to rearrange their schedules or resolve erroneous errors in order to enroll for the waitlisted course.

Note

If a waitlisted student who has not been notified tries to register for the course, an error is displayed, and registration is not allowed. This will also occur for any student who is not yet registered and is not already on the waitlist.

Managing Waitlist Priorities

You can configure waitlist priorities and exclusions based on rules by term using SOAWLTC. If no rules have been defined, the default priority for the waitlist queue is first come-first served. The timestamp of the registration status code on the SFRSTCR table determines the order of the queue.

Waitlist priority rules apply to all sections that meet the institution section selection criteria. These selection criteria include: college, subject, course number, CRN, and section attributes. If no section selection criteria have been defined in the Waitlist Course Selection window on SOAWLTC, the waitlist priority rules apply to all sections.

You can define waitlist priority rules in the Waitlist Priority Rules window on SOAWLTC to alter how priorities are controlled and define groups of students that comply with selection criteria. Rule priorities control which group of students takes precedence, and students within a group are ordered on a first-come, first-served basis. The selection criteria for waitlist priority rules within groups include: class, campus, level, college, program, field of study, department, primary/secondary curriculum, student attributes, student GPA range (minimum/maximum), academic standing, and cohort.

You can also exclude groups of students from waitlist processing in the Waitlist Exclusion Rules window on SOAWLTC. The selection criteria for waitlist exclusion rules within groups include: class, campus, level, college, program, field of study, department, primary/secondary curriculum, student attributes, student GPA range (minimum/maximum), academic standing, and cohort.

Reordering Waitlist Priorities

When a student is registered as waitlisted, the registration process assigns a waitlist priority to the student for the CRN. Waitlists can be reordered based on priority.

Processing events can necessitate a change to the order of an existing waitlist. These events could be the need to reposition an individual on a waitlist, adjust the priority rules as defined on SOAWLTC, or add/remove CRNs from a cross-listed group. Waitlists can have the priority recalculated as follows:

- The new SFAWLPR, SFAXWLP, and SFARWLP forms allow you to manually manage the waitlist priority of the students for a CRN or apply the waitlist priority rules to automatically reorder the list. Manual changes must be recorded so the SFPWLRO process does not reassign a new priority.
- The new SFPWLRO process is used to reorder the waitlists in batch for all sections that meet institutional configured selection criteria according to institutionally specified rules. The SFPWLRO process can be selected from the Options Menu on SFAWLPR, SFARWLP, and SFAXWLP for individual CRNs.

  The SFPWLRO process applies the priority rules, reorders the waitlist for the CRN, and assigns a new waitlist priority number to each student registered on the

waitlist. By default, manually modified waitlist priorities are left intact. But optionally, when run in batch, this process can override the manual assignments.

- Banner Student Self-Service and Banner Faculty and Advisor Self-Service now display the student's current position on the waitlist for all waitlisted sections. You can choose which waitlists are displayed.

Reviewing Student Waitlist Status and Priorities

Students can view their current waitlist positions and notification deadlines on the Student Detail Schedule page in self-service when the settings on SOAWLTC or SSAWLCS (for specific CRNs) SSAWLSC) allow this. The waitlist position and notification deadline information is now printed on the Class Roster Report (SFRSLST) and is listed for the instructor in self-service. Instructors can also view the student's waitlist position on the Summary Waitlist page and the Detail Waitlist page in self-service.

SFAWLPR, SFARWLP and SFAXWLP are used to view student waitlist rosters for those students who have not been notified.

The SFIWLNT form is used to query on and display students who have already been notified. The information includes the registration date and time, waitlist priority, waitlist status, notification date, and expiration date.

Reserved Seats Overflow

A new **(Reserved Seats) Overflow** checkbox has been added to the Reserved Seats window on SSASECT. This indicator can be used for each reserved seats rule, to allow a specific rule to overflow reserved seating to unreserved, available seats. This indicator allows students who meet the reserved rule to successfully register when the reserved rule is full and available seats exist in the non-reserved rule. The **(Reserved Seats) Overflow** checkbox is not used to waitlist students in the non-reserved rule. Its sole purpose is to find an available seat for immediate registration.

If the student's reserved rule is full, whether or not it has available seats on the waitlist, if the **(Reserved Seats) Overflow** checkbox is checked (set to *Y*), the non-reserved rule will be checked for seat availability. The non-reserved rule will only be used for overflow seating if available seats exist and there are no students on the non-reserved rule waitlist. Otherwise, registration processing will use the reserved rule and issue capacity messages, as usual.

Capacity Verification

If the number of available seats does not exceed the number of students on the waitlist for the course, no other students can enroll in the course. When a seat becomes available and a waitlisted student is notified, this position is reserved for the notified student, and no other students may register for this seat. When a waitlisted student has received notification, the

seat remains reserved for the student until the expiration date and time have passed. Prior to the deadline being reached, the student can change the registration status from waitlisted to enrolled or from waitlisted to dropped to enrolled.

For cross-listed CRNs, capacity verification for enrollment considers the actual enrollment for all the CRNs and the waitlists for the CRNs as well. The waitlists are consolidated into a single queue. In order for a student to enroll in a cross-listed CRN, there must be at least one available seat for the CRN and the cross-list group.

- When no available seats exist in the cross-list group, the student is not allowed to enroll in a cross-listed CRN, even though the CRN may still have available seats. If the CRN allows waitlisting, the student may register for the waitlist.
- When there are available seats in the cross-list group, but no available seats exist for the cross-listed CRN, the student is not allowed to enroll in the CRN. If the CRN allows waitlisting, the student may register for the waitlist.
- Enrollment in cross-listed CRNs with available seats can take place, even though other CRNs in the cross-list group are closed and have waitlists.

For reserved seats, capacity verification for enrollment considers the waitlist capacity for each reserved seat rule. If at least one student is registered as waitlisted for the course for a specific reserved seat rule, no other students can enroll in the course using the same rule. The exception to this is where at least one student is registered as waitlisted for an unreserved seats rule or any other rule where the **Overflow (Indicator)** is checked on the new SFARWLP form. In this case, no student is allowed to enroll for the course using the unreserved seats rule. Only waitlist registration is allowed.

A student who is waitlisted and has been notified of an available seat can enroll in the course before the notification deadline expires. This applies to a student with a dropped status or who has been dropped due to an error such as a time conflict or a prerequisite and who wishes to resolve the situation.

The following error messages are displayed when a student attempts to register for a course that has waitlisted students.

Error	Description	Result
CLOSED - ### WAITLISTED	No regular seats available, ### student waitlisted	Student registers as waitlisted
OPEN - ### WAITLISTED	Regular seats available, but ### students waitlisted	Student registers as waitlisted
CLOSED - WAITLIST FULL	No seats available neither regular nor in waitlist	Not allowed to register
OPEN - WAITLIST FULL	Regular seats available but no seats on waitlist	Not allowed to register

Notifying Students of Available Seats

A seat can become available for a waitlisted student when: a student drops the course, the maximum seat capacity for a CRN is modified on SSASECT, or the maximum seat capacity is modified for a cross-listed CRN on SSAXLST. When any of these events occurs, the automated waitlist process is triggered. The process identifies whether the notification should be online or through the batch process. When the batch process is used, a record is inserted into a collector table for later processing. When online notification is used, the waitlist notification process is triggered. This process notifies the next student in the waitlist queue that a seat is available and assigns the student a deadline by which registration must occur. This notification takes place using email. If the student does not enroll in the course by the time the waitlist notification expires, the next student in the queue is notified.

The SFRBWLP batch process is used to notify waitlisted students of available seats. The process removes students from the waitlist when notifications have expired, processes all CRNs in the collector table with a pending status, and calls the waitlist notification procedure. When SFRBWLP removes registration entries which have expired, no notification email is sent, but a registration audit record is generated with the message *Waitlist Notification Expired On (date)*. The batch process can be run in sleep/wake mode.

A notification is considered to be expired when a seat becomes available for a CRN, the list of notified students is examined, and any notifications which have reached the deadline are marked as expired. Then the next student notification is sent. SFRBWLP is used to identify notifications which have expired but have not yet been evaluated, because no new seats have become available for that CRN. SFRBWLP can be run in sleep/wake mode or run on a regular basis to assist in promptly identifying expired notifications.

Note

Even though a few students may remain on the waitlist, a notification does not remain active after it has expired. The student must re-enter the waitlist and receive a new notification.

When the waitlist record is removed by the SFPWAIT purge process or using mass drop functionality from the SFAMREG form, no automatic notification will be sent to the student regarding the removal from the waitlist.

To use email notification to contact waitlisted students about available seats, the appropriate email letter needs to be defined on SOAELTR. The letter module code of *F* (Registration) must be defined on STVELMT as a system-required value. This code is associated with the `AS_STUDENT_REGISTRATION_DETAIL` Object:Access view, which contains the necessary data related to waitlist notification. The letter module code can then be associated with the appropriate letter code rules on SOAELTL.

Modifying Available Seats

The new SSRASTZ process sets available seats to zero, as of a specific date, to force all additional registration records to be processed through the waitlist. The process can be run in Audit Mode to check which course would be affected without actually changing the available seat count.

Courses with Reserved Seats

Reserved seats waitlists are managed on the new SFARWLP form. Waitlists for courses with reserved seats are treated as independent waitlists based on the reserved seat rules that have been set up. If a student drops a course, which creates an available seat for the reserved rule that corresponds to this student, and this rule allows for waitlisting, then the next student is selected from the list of waitlisted students on that specific rule. An exception exists in the case of a NULL rule. If a seat becomes available for the NULL rule, all waitlisted students with rules where the **Overflow (Indicator)** is checked on SFARWLP are treated as a single waitlist. This allows all eligible students to be considered, and the student with higher priority is notified of the available seat.

Cross-listed Courses

The new SFAXWLP form is used to review and manage waitlist priorities for cross-listed courses. Waitlists for cross-listed courses are treated as a single waitlist. When a seat becomes available for a cross-listed course, the processing looks for the next waitlisted student considering all waitlisted students for the cross-listed CRNs. A seat becomes available when a student drops a cross-listed CRN or when the maximum enrollment of the cross-listed courses has been modified using SSAXLST.

In order to determine which student is next on the waitlist, all waitlists (from all cross-listed CRNs with waitlisted students where remaining seats that are greater than zero) must be checked. The student with the highest priority is chosen first. If a waitlist exists for the CRN, but remaining seats are available, it is likely that the maximum enrollment for the cross-listed courses was reached before the maximum enrollment for the CRN was reached. In this case, the next student in the waitlist might not necessarily be the first in line. A student waitlisted for another CRN in the cross-listed group could have a higher priority.

Drop Processing

Two GTVSDAX rules are used with automated waitlist processing.

- The *ADMINDROP* rule uses verification checking for connected courses that are waitlisted.
- The *AUTODROP* rule considers a waitlist status to be an active registration status for verification checking.

Waitlisting in Self-Service

Waitlist positions for students are displayed in Banner Student Self-Service and Banner Faculty and Advisor Self-Service. Students can check their positions on the waitlist on the Student Detail Schedule page. Faculty can also view see the position of the students on the waitlist. Waitlist notification expiration dates can be viewed in self-service.

The modified Web pages in Student Self-Service include:

- Add or Drop Classes page (`bwskfreg.P_AddDrpCrse`)
- Student Detail Schedule page (`bwskfshd.P_CrseSchdDetl`)

The modified Web pages in Faculty and Advisor Self-Service include:

- Add or Drop Classes page (`bwlkfrad.P_FacAddDropCrse`)
- View Student Schedulepage (`bwlkfstu.P_FacStuSchd`)
- Detail Wait Listpage (`bwlkfcwl.P_FacWaitList`)
- Summary Wait List page (`bwlkfcwl.P_FacWaitListSum`)

Waitlist Examples

These examples assume that the **Automatic Waitlist Notification** and the **On-line Waitlist Notification** checkboxes are both checked (set to *Y*).

Example for Standard Course

For the following course:

CRN	Subject	Course	Sequence	Title
10010	BIO	101	01	Biology I

Enrollment			Waitlist		
Maximum	**Actual**	**Remaining**	**Maximum**	**Actual**	**Remaining**
20	20	0	5	4	1

Capacity Verification and Waitlist Notification

When a student tries to enroll for this course, the following message is displayed: *CLOSED - 004 WAITLISTED*. The student can select a waitlist registration status. If no verification error occurs, the student is waitlisted, the waitlist count is updated to five (5), and the number of remaining waitlist positions becomes zero (0).

Enrollment			Waitlist		
Maximum	**Actual**	**Remaining**	**Maximum**	**Actual**	**Remaining**
20	20	0	5	5	0

The next student who attempts to enroll in this course receives the following message: *CLOSED - WAITLIST FULL*, and that student is not allowed to register for the course.

If two students drop the course, the enrollment count is updated, showing two (2) new available seats and five (5) waitlisted students.

Enrollment			Waitlist		
Maximum	**Actual**	**Remaining**	**Maximum**	**Actual**	**Remaining**
20	18	2	5	4	0

As each of the two (2) students drops the course, the waitlist automation process is triggered. For each student who drops the course, this process identifies that a seat has become available and notifies the next student in the waitlist queue that an available seat exists.

The waitlist queue is ordered by a waitlist priority. This waitlist priority reflects the position of the student in the waitlist. By default, students are ordered in a first-come first-served basis, unless other waitlist priority rules have been defined.

When a new student or a waitlisted student who has not yet been notified attempts to enroll in this course, the following message is displayed, *OPEN - WAITLIST FULL*, and that student is not allowed to enroll because waitlisted students exist.

Waitlist Queue for CRN 1001, Term 200810

CRN	ID	Registration Status	Registration Timestamp	Waitlist Priority
10010	210009300	WL	Sept. 30, 2007 09:10	1
10010	210009401	WL	Sept. 30, 2007 09:27	2
10010	210009430	WL	Sept. 30, 2007 11:32	3
10010	210009301	WL	Sept. 30, 2007 11:32	4
10010	210009000	WL	Oct. 2, 2007 20:10	5

In this case, email notifications of available seats are sent out to the first two students in the waitlist queue. This waitlist notification includes a deadline (expiration date and time). The students are allowed to register as enrolled for the course until the notification expires.

Examples for Cross-Listed Courses

For the courses in the following cross-list group (01):

CRN	Subject	Course	Sequence	Title
10011	BIO	101	01	Biology I
10012	BIO	001	01	Nature I
10013	SCI	010	01	Intro to Natural Sciences
10014	MED	001	01	Intro to Medicine

Cross-list enrollment:

Maximum	Actual	Remaining
37	37	0

	Enrollment			Waitlist		
CRN	Maximum	Actual	Remaining	Maximum	Actual	Remaining
10011	10	10	0	4	4	0
10012	10	10	0	4	2	2
10013	10	8	2	4	3	1
10014	10	9	1	0	0	0

All of the available seats in the cross-listed group are taken. No seats are available, and students are already waitlisted for the first three CRNs.

Example 1 - Capacity Verification

When the **Capacity** error checking is set to *Fatal* on SOAWLTC, and a student attempts to enroll in a CRN in the cross-listed group, the following error messages will be displayed, depending on the chosen CRN.

	Enrollment			Waitlist			Error Message
CRN	Max	Actual	Remaining	Max	Actual	Remaining	
10011	10	10	0	4	4	0	*CLOSED - WAITLIST FULL*
10012	10	10	0	4	2	2	*CLOSED - 002 WAITLISTED*
10013	10	8	2	4	3	1	*CLOSED - 003 WAITLISTED*
10014	10	9	1	0	0	0	*CLOSED*

The student can choose a waitlisted registration status for CRNs 10012 and 10013. The last two CRNs (10013 and 10014) have remaining seats. However, the cross-listed group is full; therefore, no student is allowed to enroll for those courses.

Example 2 - Capacity Verification and Waitlist Notification

Using the same cross-list group as in Example 1, one student drops CRN 10012, and one student drops CRN 10014.

Cross-list enrollment:

Maximum	Actual	Remaining
37	35	2

	Enrollment			Waitlist		
CRN	Maximum	Actual	Remaining	Maximum	Actual	Remaining
10011	10	10	0	4	4	0
10012	10	9	1	4	2	2
10013	10	8	2	4	3	1
10014	10	8	2	0	0	0

Two seats are now available at the cross-listed level. One seat is available for CRN 10012. Another seat is now available for CRN 10014.

Capacity Verification

When a student attempts to enroll in a CRN in the cross-listed group, the following error messages will be displayed, depending on the chosen CRN.

	Enrollment			Waitlist			Error Message
CRN	Max	Actual	Remaining	Max	Actual	Remaining	
10011	10	10	0	4	4	0	*CLOSED - WAITLIST FULL*
10012	10	9	1	4	2	2	*OPEN - 002 WAITLISTED*
10013	10	8	2	4	3	1	*OPEN - 003 WAITLISTED*
10014	10	8	2	0	0	0	*CLOSED*

Even when available seats exist at the cross-list level, no student is allowed to enroll for any course, because of the cross-list capacity verification condition. (When one CRN in a cross-listed group has waitlisted students and available seats, no other student may enroll for the course.)

Waitlist Notification

When the O**n-line Waitlist Notification** checkbox is checked (set to *Y*), as each of the two students drops the course, the waitlist automation process is triggered. This process identifies that an available seat exists and notifies each of the two students in the waitlist queue. In this case, the waitlist queue includes all waitlisted students for *any* courses in the cross-list group that are eligible for waitlist notification. Available seats must exist for the cross-listed courses, as well as the CRN, in order for notification to take place.

Using the same scenario, the waitlist notification process identifies CRNs with eligible waitlisted students.

Cross-list enrollment:

Maximum	Actual	Remaining
37	35	2

	Enrollment			Waitlist			Eligibility
CRN	Max	Actual	Remaining	Max	Actual	Remaining	
10011	10	10	0	4	4	0	Not eligible, no seats available for enrollment
10012	10	9	1	4	2	2	Eligible
10013	10	8	2	4	3	1	Eligible
10014	10	8	2	0	0	0	N/A

Only students waitlisted for CRNs 10012 and 10013 are eligible, because there are waitlisted students and remaining enrollment seats for the CRN. Students waitlisted for CRN 1011 are not eligible, because even if available seats exist at the cross-list level, no available seats exist at the CRN level.

The waitlist queue includes waitlisted students for these two CRNs and is ordered by waitlist priority rules. (The waitlist priority determines the position of the student in the waitlist.) By default, students are ordered in a first-come, first-served basis, unless other waitlist priority rules have been defined or the priority has been manually adjusted.

Waitlist Queue for Cross-List Group 01, Term 200810

CRN	ID	Registration Status	Registration Timestamp	Waitlist Priority	Eligibility
1012	210009300	WL	Sept. 30, 2007 09:10	1	Eligible
1011	210012304	WL	Sept. 30, 2007 09:12	2	Not eligible
1013	210009401	WL	Sept. 30, 2007 09:27	3	Eligible
1011	210010034	WL	Sept. 30, 2007 09:34	4	Not eligible

CRN	ID	Registration Status	Registration Timestamp	Waitlist Priority	Eligibility
1012	210009430	WL	Sept. 30, 2007 11:32	5	Eligible
1011	200000213	WL	Sept. 30, 2007 12:15	6	Not eligible
1011	230459731	WL	Oct. 1, 2007 09:10	7	Not eligible
1013	210009301	WL	Oct. 1, 2007 09:15	8	Eligible
1013	210009000	WL	Oct. 2, 2007 20:10	9	Eligible

In this case, the first two eligible students in the waitlist queue are notified of the available seats. This notification includes a deadline with an expiration date and time. The students can register for the CRN as enrolled in the course until the notification expires.

- The student with ID #210009300 can enroll in CRN 1012.
- The student with ID #210009401 can enroll in CRN 1013
- All other students in the waitlist queue remain waitlisted.
- A new student who attempts to enroll in a course in the cross-listed group is not allowed to do so. However, that student can register as waitlisted if remaining seats exist for the waitlist for that CRN. Similarly, a student on the waitlist who has not been notified will not be allowed to enroll in the course.

Examples for Reserved Seats

For the following course with reserved seats, CRN 1010:

- Rules have been numbered for this example.
- Rules do not show all possible elements, just level, program, major, and class.
- Rule 0 is the system-generated rule for unreserved seats.
- Rule 0 is used when a student can enroll in a course where remaining unreserved seats exist, if the rule that matches the student is full, but the **Overflow (Indicator)** is checked (set to *Y*).

Rule No	Reserved Seats Rule				Enrolled			Waitlisted			Ovr Ind
	Lvl	Prgm	Major	Class	Max	Act	Rem	Max	Act	Rem	
0	##	####	#####	##	7	4	3	5	0	5	
1			BIO		10	10	0	5	4	1	
2				FR	5	5	0	0	0	0	Yes
3	UG				5	5	0	5	0	5	Yes
4	GR		ANTH		2	2	0	5	0	5	
5	GR		ARCH	SP	5	5	0	5	0	5	
	CRN Total				34	31	3	25	4	21	

Rule 1 has four waitlisted students (A, B, C, and D). When three students attempt to enroll in the course, rules 2, 3, and 4 are matches.

Student 1 matches rule 2.

Rule 2 is full and has no remaining seats. Because the **Overflow (Indicator)** is checked (set to *Y*), the student is allowed to enroll using an available seat from the unreserved seats rule (rule 0).

Student 2 matches rule 3.

Rule 3 is full and has no remaining seats. Because the **Overflow (Indicator)** is checked (set to *Y*), the student is allowed to enroll using an available seat from the unreserved seats rule (rule 0).

Student 3 matches rule 4.

Rule 4 is full and has no remaining seats. The **Overflow (Indicator)** is unchecked (set to *N*). The student receives the *CLOSED - 000 WAITLISTED* message and is only allowed to register as waitlisted, using reserved seats rule 4.

After these changes have taken place, the reserved seats scenario looks like this:

Rule No	Reserved Seats Rule				Enrolled			Waitlisted			Ovr Ind
	Lvl	Prgm	Major	Class	Max	Act	Rem	Max	Act	Rem	
0	##	####	#####	##	7	6	1	5	0	5	
1			BIO		10	10	0	5	4	1	
2				FR	5	5	0	0	0	0	Yes
3	UG				5	5	0	5	0	5	Yes
4	GR		ANTH		2	2	0	5	1	4	
5	GR		ARCH	SP	5	5	0	5	0	5	
	CRN Total				34	33	1	25	5	20	

Three additional students (4, 5, and 6) that match rule 3 attempt to enroll in the course.

Student 4

Rule 3 is full and has no remaining seats. Because the **Overflow (Indicator)** is checked (set to *Y*), the student is allowed to enroll using the last available seat from the unreserved seats rule (rule 0).

Students 5 and 6

Rule 3 is full and has no remaining seats. The **Overflow (Indicator)** is checked (set to *Y*) for rule 3. This allows the student to enroll using rule 0. However rule 0 is full, as the last remaining seat was used by student 4, and no more available seats can be used.

Students 5 and 6 receive the *CLOSED - 000 WAITLISTED* message and are allowed to register as waitlisted on rule 3.

After these changes have taken place, the reserved seats scenario looks like this:

Rule No	Reserved Seats Rule				Enrolled			Waitlisted			Ovr Ind
	Lvl	Prgm	Major	Class	Max	Act	Rem	Max	Act	Rem	
0	##	####	#####	##	7	7	0	5	0	5	
1			BIO		10	10	0	5	4	1	
2				FR	5	5	0	0	0	0	Yes
3	UG				5	5	0	5	2	3	Yes
4	GR		ANTH		2	2	0	5	1	4	
5	GR		ARCH	SP	5	5	0	5	0	5	
	CRN Total				34	34	0	25	7	18	

Two additional students (7 and 8), that match the unreserved seats rule (rule 0), attempt to register for the course. The rule is full, so they are registered as waitlisted using rule 0. But this rule is full, so they are registered as waitlisted on rule 0.

A student who matches rule 2 attempts to enroll and is not allowed because the rule is full. Even thought the **Overflow (Indicator)** is checked and there are waitlist positions available for rule 0, this student is not allowed to waitlist for the CRN. The **Overflow (Indicator)** is strictly for enrollment use and does not apply to students attempting to use a waitlist.

After these changes have taken place, the reserved seats scenario looks like this:

Rule No	Reserved Seats Rule				Enrolled			Waitlisted			Ovr Ind
	Lvl	Prgm	Major	Class	Max	Act	Rem	Max	Act	Rem	
0	##	####	#####	##	7	7	0	5	2	3	
1			BIO		10	10	0	5	4	1	
2				FR	5	5	0	0	0	0	Yes
3	UG				5	5	0	5	2	3	Yes
4	GR		ANTH		2	2	0	5	1	4	
5	GR		ARCH	SP	5	5	0	5	0	5	
	CRN Total				34	34	0	25	9	16	

Waitlist Notification

Three students drop the course in the above scenario.

- One student was enrolled using rule 2.
- One student was enrolled using rule 3.
- One student was enrolled using the unreserved seat rule (rule 0).

Rule No	Reserved Seats Rule				Enrolled			Waitlisted			Ovr Ind
	Lvl	Prgm	Major	Class	Max	Act	Rem	Max	Act	Rem	
0	##	####	#####	##	7	6	1	5	2	3	
1			BIO		10	10	0	5	4	1	
2				FR	5	4	1	0	0	0	Yes
3	UG				5	4	1	5	2	3	Yes
4	GR		ANTH		2	2	0	5	1	4	
5	GR		ARCH	SP	5	5	0	5	0	5	
	CRN Total				34	31	3	25	9	16	

The waitlist notification process works as follows:

- A new seat is available for reserved rule 2. There are no waitlisted students for that rule, and no action is required.
- A new seat is available for reserved rule 3. There are two waitlisted students using this rule.
- The next waitlisted student, who is using rule 3, would be notified that a seat is available.
- Only students waitlisted for rule 3 are eligible.
- In the example, the first eligible waitlisted student for rule 3 is student 5.

Waitlist Queue for CRN 1010, Term 200810, use reserved seats

		Reserved Seats Rule						Enrolled				
CRN	ID	Rule	Lvl	Prgm	Mjr	Cl	Ovr Ind	Reg Stat	Registration Timestamp	Wtlt Pri	Eligibility
1010	Student A	1			BIO			WL	Oct. 1, 2007 09:10	1	Not eligible
1010	Student B	1			BIO			WL	Oct. 1, 2007 09:20	2	Not eligible
1010	Student C	1			BIO			WL	Oct. 1, 2007 10:30	3	Not eligible
1010	Student D	1			BIO			WL	Oct. 1, 2007 11:15	4	Not eligible
1010	Student 3	4	GR		ANTH			WL	Oct. 2, 2007 09:00	5	Not eligible
1010	Student 5	3	UG				Yes	WL	Oct. 3, 2007 08:00	6	Eligible

		Reserved Seats Rule					Enrolled				
CRN	ID	Rule	Lvl	Prgm	Mjr	Cl	Ovr Ind	Reg Stat	Registration Timestamp	Wtlt Pri	Eligibility
1010	Student 6	3	UG				Yes	WL	Oct. 3, 2007 08:10	7	Eligible
1010	Student 7	0	##	####	#####	##		WL	Oct. 4, 2007 10:00	8	Not eligible
1010	Student 8	0	##	####	#####	##		WL	Oct. 2, 2007 10:01	9	Not eligible

A new seat is available for unreserved rule 0. The unreserved seats rule (rule 0) is treated as an exception. The process will look for the next waitlisted student using rule 0, or any other rule where the **Overflow (Indicator)** is checked (set to *Y*). The next waitlisted student is notified that a seat is available. Only students waitlisted in rule 0 or in rules where the **Overflow (Indicator)** is checked (set to *Y*) are eligible.

The first eligible (next available) waitlisted student is number 6. Student 5 has already been notified.

Waitlist Queue for CRN 1010, Term 200810, use reserved seats

		Reserved Seats Rule					Enrolled				
CRN	ID	Rule	Lvl	Prgm	Mjr	Cl	Ovr Ind	Reg Stat	Registration Timestamp	Wtlt Pri	Eligibility
1010	Student A	1			BIO			WL	Oct. 1, 2007 09:10	1	Not eligible
1010	Student B	1			BIO			WL	Oct. 1, 2007 09:20	2	Not eligible
1010	Student C	1			BIO			WL	Oct. 1, 2007 10:30	3	Not eligible
1010	Student D	1			BIO			WL	Oct. 1, 2007 11:15	4	Not eligible
1010	Student 3	4	GR		ANTH			WL	Oct. 2, 2007 09:00	5	Not eligible
1010	Student 5	3	UG				Yes	WL	Oct. 3, 2007 08:00	0	Eligible, but notified
1010	Student 6	3	UG				Yes	WL	Oct. 3, 2007 08:10	7	Eligible
1010	Student 7	0	##	####	#####	##		WL	Oct. 4, 2007 10:00	8	Eligible
1010	Student 8	0	##	####	#####	##		WL	Oct. 2, 2007 10:01	9	Eligible

When seats become available for the course, rule 0 is the last rule that is evaluated by the process.

Examples for Connected Courses

Two types of dependencies exist for connected courses that are waitlisted.

- Course A requires that the student is enrolled in course B.

  Course B does not require that the student is enrolled in course A.

- Course A requires that the student is enrolled in course B.

  Course B requires that the student is enrolled in course A.

Linked courses also have the same relationships at CRN level.

Banner Student does not allow a student to be enrolled in a course that does not comply with a dependency restriction for a waitlisted course, because the waitlisted course may eventually be dropped.

When the Student Options for **Links**, **Corequisites**, and **Prerequisites** are set to *Yes* on SOAWLTC, and the same options set to *Fatal* on SOATERM, the following can result.

The following example shows the allowed combinations for each case.

Example 1 - Course A requires course B

Course	---------Allowed---------		----------Not Allowed----------				
Course A	Enrolled	Waitlisted	Waitlisted	Dropped	Dropped	Enrolled	Enrolled	Waitlisted
Course B	Enrolled	Waitlisted	Enrolled	Enrolled	Waitlisted	Waitlisted	Dropped	Dropped

Example 2 - Course A requires course B, and course B requires course A

Course	---------Allowed---------		----------Not Allowed----------				
Course A	Enrolled	Waitlisted	Waitlisted	Enrolled	Enrolled	Waitlisted	Dropped	Dropped
Course B	Enrolled	Waitlisted	Enrolled	Waitlisted	Dropped	Dropped	Enrolled	Waitlisted

A student wants to register for the lecture course BIO 101, which requires the lab course BIO 102.

- If the lab is full, the student is not allowed to enroll for the lecture course BIO 101, even if the student has already registered as waitlisted for the lab course BIO 102.
- If the lecture is full, the student is allowed to register as waitlisted for the lecture course BIO 101 and as enrolled for the lab course BIO 102.
- If both the lab and lecture are full, the student is allowed to register for both courses as waitlisted.

However, for the last two options, if the student drops the waitlisted lab course (BIO 102), an invalid combination is generated, and the autodrop functionality will drop both courses or ask for confirmation based on the *AUTODROP* rule on GTVSDAX.

Modified Web Pages

The following web pages were modified for the Waitlist Automation enhancement:

- "Add or Drop Classes (bwlkfrad.P_FacAddDropCrse)" on page 72
- "View Student Schedule (bwlkfstu.P_FacStuSchd)" on page 73
- "Detail Wait List (bwlkfcwl.P_FacWaitList)" on page 73
- "Summary Wait List (bwlkfcwl.P_FacWaitListSum)" on page 74

Add or Drop Classes (bwlkfrad.P_FacAddDropCrse)

The waitlist processing behind this page has been modified to work as explained in "Processing" on page 49.

The following new setup requirement has been added.

Setup Requirements

Item	Description
Automated Waitlist Term Control Form (SOAWLTC)	If your institution is using waitlist automation, define waitlist registration verification checking and error severity warnings.
Crosswalk Validation Form (GTVSDAX)	Internal code *WLTIMECON* is no longer used by self-service to control time-conflict checking for registrations on the waitlist. Time-conflict checking for students attempting to waitlist for a CRN is now controlled by term with the settings of the **Time** radio button group in the Registration Error Checking window of the Term Control Form (SOATERM) and in the Waitlist Error Checking window of SOAWLTC.

View Student Schedule (bwlkfstu.P_FacStuSchd)

The following fields have been added to this page.

Web Page Fields

Item	Description/Source Information
Waitlist Position	Number indicating the student's position in the waitlist. If the student was waitlisted and has been notified that he or she now has a place in the class, the value displayed is *0*.
Notification Expires	Date and time by which the student must enroll in the CRN. A value is displayed after a place has opened in a previously full CRN and the waitlisted student has been notified that he or she can now enroll. If the student does not enroll before the expiration date and time, the registration is cancelled.

Detail Wait List (bwlkfcwl.P_FacWaitList)

The following fields have been added to this page.

Web Page Fields

Item	Description/Source Information
Waitlist Position	Number indicating the student's position in the waitlist. If the student was waitlisted and has been notified that he or she now has a place in the class, the value displayed is *0*.
Notification Expires	Date and time by which the student must enroll in the CRN. A value is displayed after a place has opened in a previously full CRN and the waitlisted student has been notified that he or she can now enroll. If the student does not enroll before the expiration date and time, the registration is cancelled.

Summary Wait List (bwlkfcwl.P_FacWaitListSum)

The following fields have been added to this page.

Web Page Fields

Item	Description/Source Information
Waitlist Position	Number indicating the student's position in the waitlist. If the student was waitlisted and has been notified that he or she now has a place in the class, the value displayed is *0*.
Notification Expires	Date and time by which the student must enroll in the CRN. A value is displayed after a place has opened in a previously full CRN and the waitlisted student has been notified that he or she can now enroll. If the student does not enroll before the expiration date and time, the registration is cancelled.

6 Minimum/Maximum Registration Hours - Functional

This enhancement is part of the changes made to registration processing for Concurrent Curricula. This enhancement provides the ability to use expanded hours rules for minimum and maximum registration hours. Minimum hours can now be assigned to a student. Registration hours processing now uses all the curriculum elements.

This gives institutions the ability to allow restriction of registration minimum/maximum hours by other criteria than just level, as using level only does not allow for tracking academic requirements for colleges and programs that have different registration hour restrictions. This also allows for greater flexibility when building registration hours rules.

The following RPEs are delivered with this enhancement: #CMS-RPE28715, #CMS-RPE4605, and #CMS-RPE2565.

Please refer to the *Banner Student 8.0 Release Guide* for more information on this enhancement.

Processing

Registration hours processing has been modified for this enhancement. Existing maximum hours criteria have been expanded to allow the use of all curriculum elements, instead of just student level and other previously used student data elements. Minimum hours have also been added to the registration hours processing. Minimum and maximum registration hours can now be restricted by: campus, college, degree, program, field of study type, field of study code, department, curricula, admission type, minimum hours, student type, (student) attribute, cohort, residence, sport, visa, and class. SFAMHRS has been expanded to use these elements in minimum/maximum registration hours rules.

The maximum hours can be increased on SFAREGS. The minimum hours can be decreased on SFAREGS. The source of the hours rule is also displayed on SFAREGS. The source determines if the minimum or maximum hours value can be updated using a new parameter on SHRASTD. SOATERM now uses an item in the Student Options for minimum hours error checking. Minimum hours can also be added for academic standing codes (STVASTD) and combined academic standing codes (STVCAST).

The new minimum hours functionality was added to prevent students from dropping below their institutionally defined minimum number of registration hours, once that minimum limit has been reached. This prevents a student from dropping below full-time status, for example. Students can make changes to their schedules until they reach the minimum hours limit. Once that limit has been reached, they can still make changes, as long as they stay within the minimum to maximum hours range.

Minimum and maximum hours rules for students are calculated based on the rules met from SFAMHRS, as well as rules for academic standing and combined academic standing. If no rule is met, minimum hours will be set to *0.000*, and maximum hours will be set to *999999.999*. If multiple SFAMHRS rules are met by a student, Banner will compare all rules and select the highest number of minimum hours and the lowest number of maximum hours.

For example:

> A student meets two rules. Rule one has a minimum of 3 hours and a maximum of 12 hours. Rule two has a minimum of 6 hours and a maximum of 99 hours. The values returned for the student will be a minimum of 6 hours and a maximum of 12 hours, because this will be the most restrictive rule.

Where multiple rules are met and the minimum hours on the most restrictive minimum rule are greater than the maximum hours on the most restrictive maximum rule, the student's minimum and maximum hours will be populated with the same value that is equal to the maximum hours.

For example:

> Rule one has a minimum of 12 hours and a maximum of 18 hours. Rule two has a minimum of 3 hours and a maximum of 10 hours. The values returned for the student would be a minimum of 12 hours and a maximum of 10 hours. In this case, the student’s minimum and maximum hours are set to the same value as the maximum of 10.

Minimum/maximum hours rules from academic standing and progress evaluation take precedence over minimum/maximum hours rules on SFAMHRS.

For example:

> A student pre-registers and meets a SFAMHRS rule for a minimum of 6 hours and a maximum of 99 hours. Later on, that student is put on academic probation where the minimum hours rule is 9 hours and the maximum hours rule met is 15 hours, due to the probation status. Since changes in academic standing and progress evaluation supersede the rules on SFAMHRS, the minimum and maximum hours will be replaced with a minimum of 9 hours and a maximum of 15 hours, if the user requests this when the Calculate Academic Standing Report (SHRASTD) is run.

The new **Source** field on SFAREGS displays the source of the minimum and maximum hours. Sources are: *USER, ASTD, CAST,* and *MHRS*. The only way a source of *USER* can

be overridden is to use the new Update 'USER' Source New Value parameter on SHRASTD. This parameter can be set to *Y* to override minimum and maximum hours, or *N* to not override minimum and maximum hours when the existing source for the hours from SFAMHRS is *USER*. During registration, minimum hours checking does not allow any updates to registration, if all updates cannot be performed.

For example:

> A student has 12.000 minimum hours on SFAREGS and on the Add/Drop page in Banner Student Self-Service. The student pre-registers for 12 hours. The student later elects to drop two, three credit courses and add a new three credit course. This results in the total credit hours dropping to 9, which is below the student's minimum.
>
> Registration will not process any of the add/drop requests and produce a message that the request will result in less than the minimum number of hours. The student can then decide if he/she really wants to add one course and drop another, or leave the schedule as it is.

Minimum Hours checking will occur only after a student has successfully completed registration for courses that meet the minimum hours restriction (that is, minimum hours checking will not occur during the student's initial registration session or during any subsequent registration sessions, until the minimum number of hours has been attained and saved to SFRSTCR table).

Note

Registration maximum hours rules and registration processing will continue to work as before. After the upgrade to Banner Student 8.0, all the new curriculum fields will be set to NULL, with the exception of the **Curricula** pulldown field. This field will be set to *Primary* on existing rules to accommodate prior registration maximum hours rules that only checked the primary curriculum. All existing registration maximum hours rules will function the same as prior to the 8.0 upgrade. ■

The **Active Indicator** field has been added to the Sports Code Validation Form (STVSPST). This checkbox indicates whether the sports status code is active or inactive. This indicator is checked when a rule has an associated sports code and verifies that the student has an active sports code.

Changes have also been made in Banner Student Self-Service and Banner Voice Response to display, process, and check minimum hours during registration processing.

7 Self-Service Graduation Application - Technical

New Procedure

The following procedure was added for this enhancement:

- `bwckgrad.sql` / `bwckgra1.sql` (graduation application self-service pages)

Changed Procedure

The following procedure was modified for this enhancement:

- `bwckfrmt.sql` / `bwckfrm1.sql` (common curriculum display procedures)

8 Catalog Extract and Load - Technical

Changed Packages

The following packages were modified for this enhancement:

- bwckctl1.sql
- bwckctlg.sql

These packages were modified to use the new functionality delivered in the following new Web Tailor internal routines:

- bwckctlg.catalog_label_text
- bwckschd.schedule_label_text
- bwckctl1.sql
- bwckctlg.sql
- bwckfrmt.sql
- bwckfrm1.sql
- bwcksch1.sql
- bwckgen1.sql

See Section 3, “Catalog Extract and Load - Functional” on page 17 for more information about these routines. “New Tasks” on page 18 provides step-by-step procedures for using these routines.

9 Incomplete Grade Processing Automation Enhancement - Technical

This section discusses the following topics:

New Package

The `bwlkincg/bwlkinc1` package was added for this enhancement. This package/package body includes the procedures listed in "New Procedures" on page 84.

Changed Packages

The following package files were modified to support this enhancement:

bwlkffgl.sql

New logic was added to navigate from the Final Grades page (`bwlkffgd.P_FacFinGrd`) to the Incomplete Final Grades page (`bwlkffgd.P_FacCommitFinGrd`) when a qualified incomplete grade is entered on the Final Grades page.

shkegrb.sql

New parameters were added to procedure `P_CommitFinGrd` to allow navigation to the Incomplete Final Grades page.

shkegr1.sql

The following changes were made to this package:

- Changes were made to procedure `P_CommitFinGrd` to delay the update of SFRSTCR when an incomplete grade is entered on the Final Grades page.
- New procedure `P_CommitIncmpGrd` was added to validate and save incomplete grade records.

New Procedures

The following procedures were added for this enhancement:

- "bwlkincg.P_FacIncmpGrdSum" on page 84
- "bwlkincg.P_FacCommitIncmpSum" on page 84
- "bwlkincg.P_FacIncmpGrdFinal" on page 84
- "bwlkincg.P_FacCommitIncmp" on page 85

bwlkincg.P_FacIncmpGrdSum

This procedure displays a summary list of incomplete grades for a term and CRN. It allows a user to update the default grade and extension date for an incomplete grade.

bwlkincg.P_FacCommitIncmpSum

This procedure processes changes on the Incomplete Grades Summary page (`bwlkincg.P_FacIncmpGrdSum`).

bwlkincg.P_FacIncmpGrdFinal

This procedure displays incomplete grades for a term and CRN when a user enters an incomplete on the Final Grades page (`bwlkffgd.P_FacFinGrd`). It allows a user to update the default grade and extension date for an incomplete grade.

bwlkincg.P_FacCommitIncmp

This procedure processes changes on the Incomplete Final Grades page (`bwlkincg.P_FacIncmpGrdFinal`).

Changed Procedure

P_CommitFinGrd

This procedure was changed as follows:

- To allow navigation to the Incomplete Final Grades page (`bwlkincg.P_FacIncmpGrdFinal`)
- To delay the update of SFRSTCR when an incomplete grade is entered on the Final Grades page (`bwlkffgd.P_FacFinGrd`)

10 Waitlist Automation - Technical

This section discusses the following topics:

Changed Procedures

This following procedures have been changed for this enhancement:

bwckcoms. p_build_action_pulldown

This procedure has been modified to stop the Web registration option from being displayed in the pull-down list of the registration code if waitlist automation is active and the student is not being notified or if no seats are available in the section.

bwckgens.P_DispCrseSchdDetl

This procedure is called by the Student Detail Schedule page (`bwskfshd.P_CrseSchdDetl`) and has been modified to include the waitlist position and the notification expiration date.

bwlkfcwl.p_facclawaitdtl

This procedure is called by the Detail Wait List page (`bwlkfcwl.P_FacWaitList`) and has been modified to display the waitlist priority and notification expires date in the Detail Waitlist section of the page.

bwlkfcwcl.p_faccwstuhdrsum

This procedure is called by Detail Wait List page to display the page's headers. It has been modified to include the new Waitlist Priority header.

bwlkfcwcl.p_facclawaitsum

This procedure is called by the Summary Wait List page (`bwlkfcwl.P_FacWaitListSum`) and has been modified to include the new waitlist priority data.

sfkedit.p_pre_edit

This procedure has been modified to call each procedure that checks a student's section options (such as capacity, field study, college, and so on). It also passes the PIDM and CRN information. When the student course registration status code (STVRSTS) is *Waitlist*, the SOBTERM error checking controls are replaced with the corresponding SOBWLTC values.

sfkedit.p_group_edits

This procedure has been modified not to use the GTVSDAX rule. The `p_check_time_sftregs` procedure now handles that processing.

sfkedit.p_update_regs

This procedure has been modified to pass the PIDM and CRN information for the student. It also calls the `sfkwlat.f_assign_prio` function to return the waitlist queue priority number. The function is called only when the Waitlist indicator for the student course registration status code (STVRSTS) is set to *Y* and waitlist automation processing is active for the term and CRN.

sfkedit.p_web_group_edits

This procedure has been modified to use waitlist time severity checking when waitlist automation processing is active. When waitlist automation processing is not active, the GTVSDAX rule is used.

sfkfunc.p_check_corq_sftregs

This procedure has been modified not to include waitlisted courses when the **Corequisites** radio button group for include waitlisted courses in error checking is set to *No* on SOAWLTC.

sfkfunc.p_check_dupl_sftregs

This procedure has been modified to include waitlisted courses if the severity flag indicator is set to *Fatal* on SOAWLTC.

sfkfunc.p_check_time_sftregs

This procedure has been modified to combine its logic with `sfkfunc.p_check_time_wl_sftregs` so that waitlist courses are included only when the waitlist severity control is set to *Fatal*. Other changes include the following.

- Cursor `sftregs_time_conflict_c` has been modified not to include sections that do not count in enrollment or sections with fatal errors. This is only when the waitlist severity indicator has been set to *Fatal*.
- The insert on the SFRTIME table has been modified to include sections in the waitlist if the waitlist severity indicator has been set to *Fatal*.
- Code was added to update sections whose status is *Not In Fatal* or *Do Not Count in Enrollment* if the waitlist severity indicator has been set to *Fatal*.

sfkfunc.p_check_link_sftregs

This procedure has been modified not to include waitlisted courses when the **Corequisites** radio button group for include waitlisted courses in error checking is set to *No* on SOAWLTC.

sfkpreq.p_prerequisitecheck

This procedure has been modified to call `sfkwlat.f_get_severity_flag_student` and turn off the error checking controls on SOBTERM for prerequisite checking for waitlisted courses.

sfkwait.p_capacity_check

This procedure, which checks the course capacity, has been modified to use waitlist automation processing. The procedure will use the student's PIDM to check if an exception rule applies when the student registers for a waitlisted course. It will also display a *CLOSED SECTION* message when waitlist automation processing is active for the term and CRN, and waitlisted seats are available, but the student falls into an exception.

sskfunc.p_sub_enrl

This procedure has been modified to update reserved seats table before section table.:

Changed Scripts

The following scripts were changed for this enhancement:

- "bwlkfcw1.sql" on page 90
- "bwckgen1.sql" on page 91
- "bwckcom1.sql" on page 91

bwlkfcw1.sql

Modified to display the Waitlist Priority and Notification Expires columns on the Detail Waitlist and Summary List pages.

bwckgen1.sql

Modified to include the waitlist position and the notification expiration date.

bwckcom1.sql

Modified to exclude the Web Registration option from the pull-down list for the registration code if there are no seats available in the section and the student has not been been notified.

11 Minimum/Maximum Registration Hours - Technical

Changed Packages

The following objects were modified to accommodate the Student Minimum Hours functionality, which was added to prevent students from dropping below their institutionally defined minimum hours:

- bwlkfsfk.sql
- bwlkfsf1.sql
- bwckreg1.sql
- bwckcom1.sql
- bwckgen1.sql
- bwcklib1.sql

12 Registration Restrictions - Technical

Changed Packages

The following objects were modified to use curriculum elements from SORLCUR and SORLFOS, rather than the back-filled SGBSTDN curricular elements. Where applicable, logic was added to accomodate the four new registration restrictions (department, cohort, student attribute, and minimum hours):

- bwckregs.sql/bwckreg1.sql
- bwckgens.sql/bwckgen1.sql
- bwckctlg.sql/bwckctl1.sql
- bwckschd.sql/bwcksch1.sql
- bwckcoms.sql/bwckcom1.sql
- bwcklibs.sql/bwcklib1.sql
- bwcksams.sql/bwcksam1.sql

13 Miscellaneous Enhancements

RPEs

The following RPEs are included in enhancement sections of the release guide:

- Catalog Extract and Load
  - #CMS-RPE47897
  - #CMS-RPE33680
  - #CMS-RPE34191
  - #CMS-RPE34192
- Self-Service Graduation Application
  - #CMS-RPE28710

Registration Error Messages

Banner registration has been updated to follow standards for internationalization. Registration error messages have been modified so they can be translated into non-English languages. The error messages presented to users now reside in a rules table that can be modified at your institution. A new code-based method is also used to identify the types of messages. Although the changes for the Registration Error Message enhancement were made to Banner Student, they address the following RPEs for self-service:

- #CMS-RPE27613
- #CMS-RPE40317
- #CMS-RPE41115
- #CMS-RPE41199
- #1-1SCNO6
- #1-6NRFP

PIN Maintenance

Banner General Release 8.0 includes an enhancement for user PIN (password) security. The following functionality is included in this enhancement.

- PINs are now stored only in encrypted form.

  A cryptographic hash transforms the PIN before it is stored, so that the unencrypted password can never be retrieved from the database. For additional security, the PIN is "salted" before it is encrypted; that is, a randomly generated string is added to the PIN before encryption. When a user enters a PIN to gain access to the system, the user's entered PIN is transformed using the same cryptographic PIN. The database checks for a match before the user can proceed.

- Institutions can now set and enforce standards for strong passwords.

  Strong passwords are passwords which are long, complex, and nearly impossible to guess. Your institution can enforce strong password standards based on: the minimum and maximum permissible length of user PINs, the requirement that PINs include letters, digits, or both letters and digits, and the restriction of PIN reuse (number of days before a previous PIN can be reused).

- A new, more secure PIN reset mechanism has been established.

  When a user forgets a password, the PIN reset can be requested by answering a series of security questions with answers that the user has previously provided. You can also decide whether users are allowed to generate their own security questions, or whether they must use standard questions established by the institution. The user's answers are stored in encrypted form, just like the PIN.

A new PIN Questions Form (GOAQSTN) is included in this enhancement. The Enterprise PIN Preferences Form (GUAPPRF), the Third Party Access Form (GOATPAC), and the Third Party Access Audit Form (GOATPAD) have been modified for the PIN security updates.

Please refer to the *Banner General 8.0 Release Guide* for more information on this enhancement.

Documentation Changes

With the release of Banner 8.0, you will notice significant changes to the documentation.

- The look and feel of the documentation has been modernized. This new design incorporates new fonts, increased character size, and color to make the manuals easier to read and to use.

- For some products, defects information in the release guide now includes an abbreviated description of each defect correction. For additional details, refer to the

supplemental text file delivered along with your release guides. This text file includes detailed problem, impact, and resolution information for each defect extracted directly from the Customer Support Center.

- Each manual now includes a publication date that reflects the actual month and year of publication. Any document that is revised will include an updated publication date to make it easier to identify revised materials.
- A revision history log has been added to the copyright page of each manual to identify any revised versions and associated changes.
- A link to a feedback form has been added to the copyright page of each manual, in the bookmarks of all PDF files, and into online help to enable you to provide input about the documentation.

14 Problem Resolutions

Due to the small number of problem resolutions for this release, each is summarized below and the .txt file is not delivered.

Object	Number	Summary
bwlkffgd	#CMS-DFCT103896	If a user enters a date with a two-digit year instead of a four-digit one, the system now displays the correct error message.
documentation	#1-BDJET	The *Faculty and Advisor Self-Service User Guide* has been updated with information about the *STDISPNUMB* and *GRDISPNUMB* GTVSDAX records, which allow an institution to specify the maximum number of student records to be displayed on the class list, waitlist, and grading pages.
	#1-HO0WI	The *Faculty and Advisor Self-Service User Guide* contained conflicting information regarding the sort order of the Detail Wait List page (`bwlkfcwl.P_FacWaitList`). This has been corrected for Release 8.0.
	#1-2AG6O3	In the *Faculty and Advisor Self-Service User Guide*, the Student Academic Transcript page (`bwlkftrn.P_ViewTran`), the setup requirement for displaying the student's birth date have been added to the item for SHATPRT.
	#1-2RDO1W	In the *Faculty and Advisor Self-Service User Guide*, the page description of the Advisee Listing page (`bwlkadvr.P_DispAdvisees`) now includes information about the *FACWEB* internal group on GTVSDAX.