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1. General Overview

The Academic Early Warning (AEW) application is primarily a tool to support instructor reporting of student status. The system is optimized for the automation of reporting tasks that occur once or a few times per quarter and involves a large portion of the primary faculty. The system allows for reporting simple, user defined, status codes to characterize a student’s status. AEW is web-based and allows instructors to authenticate using the same credentials (SID & PIN) used for Instructor Briefcase. AEW mimics the old and seldom used HP3000 early warning system but with additional features and flexibility.

- Class-Driven rather than Student Attribute-Driven
  - Instructors can access all or a subset of their classes selected for the reporting period. The classes available to an instructor are determined by the AEW administrator, who is typically someone in the Instruction or Registrar’s office.
- Serves several purposes
  - Student academic progress
  - Mid-term grades
  - 10th day “No show” reporting
- Saves time, paperwork and confusion
  - There is no need to print rosters and distribute manually.
  - It provides a central location for reporting on students.
  - Supports sending notices to student via mail or email (email requires significant additional setup and effort).

2. System Concepts and Organization

2.1 Primary Users
- Faculty
- Application Administrators
- Report Consumers
  - Advisors
  - Administrative Staff

2.2 Concepts and Terminology

Intervention Codes
These are simple system configurable codes that are used to represent some aspect of a student’s status. Additional codes may be added to the system at any time. Codes may not be removed from the system if they have been used in a live report.

Notification Queues
The system allows for two types of notification: email and postal. The system allows the definition of any number of postal and email queues to essentially define buckets that individual intervention codes may be dispatched into. Each queue is intended to collect reports of related intervention codes that will be delivered to students via email or postal message. Each email queue allows the definition of a simple “form letter” that the system will use when sending notifications to students. Postal queues basically gather together
all of the intervention code reports that are targeted for the queue and allow for a data file to be exported for use with an external mail merge system.

**Action Binding Sets**
The action binding sets allow for flexibility in determining which of the system defined intervention codes are available for an instructor to report within a given compilation. Any of the intervention codes defined within the system may be bound to the set. The binding set also allows the administrator to declare one of the intervention codes to be the default in order to streamline faculty use. Each code that is bound to the set may be associated with any number of notification actions which are each targeted at a particular notification queue. Action binding sets may also be reused for different compilations. Once a code has been reported from a binding set it may not be unbound. However the notification actions assigned to a particular code may be altered at any time.

**Compilations**
A Compilation is used to define the set of all reports called for in a single reporting session. Each compilation must be assigned a single action binding set when created. Only the intervention codes bound to the action binding set will be available for faculty to report. By default a compilation will provide reporting rosters/forms for the primary instructor of each class that has any enrollment. Only the primary instructor may file reports for a particular class. Each compilation is defined to occur within a particular quarter defined by the reporting open date. Instructors are then presented links to reporting forms for each class for which they are the primary faculty. Within each class an instructor may file one “Academic Alert” (see below) per student.

**Class Filters**
By default a compilation will accept reports for any class with positive enrollment in the given quarter. Class Filters define a list of classes that reports may be filed for. All other classes will be excluded. Attaching a class filter to a compilation is optional and only a single filter may be attached at any time. Class Filters may be edited or removed at any time and may be attached to any number of compilations simultaneously. Each filter is specific to a given quarter and may not be reused across different quarters.

**Academic Alert**
Within a given compilation a single academic alert may be filed for each student in each class that they are enrolled in. An academic alert consists of any number of reported intervention codes and an optional text comment which may be entered by the faculty member.

**Compilation Finalization**
In order to perform the available notification services the system must finalize a given compilation. The finalization step essentially sorts the reported intervention codes into each notification queue as defined by the compilation’s action binding set. After the compilation is finalized then notification via email may be initiated and the mail merge data files will become available. A compilation may be finalized any number of times (if for example the reporting windows is lengthened) but the results of the last finalization will be discarded.
2.3 User Application Roles

Root:
The role allows the user to perform any available action within the system. Currently there is no difference between the Root and Administrator Roles.

Administrator:
This role allows the user to perform all system configurations tasks and access any reporting features of the system. This is also the role required for managing user application roles.

Compilation Creator:
Allows a user to create compilations. They will only be able to configure the compilations that they have created and therefore own. (Do not use if possible.)

Reporting User:
Grants access to all reports found under the “Reporting Home” link.

3. Features and Usage

This guide does not cover the specifics of setting up the hardware environment or building and deploying the application.

3.1 Initial System Configuration

When the system is first brought online there are several initial configuration steps that must be performed from within the application’s UI in order to make the system usable. When the system is initially deployed one or more users should have been assigned the Administrator application role. One of those users will need to login to complete the initial configuration. After logging in follow the “System Configuration” application task link to see the required setup steps.
This following outline lists the initial configuration tasks. If no changes are needed for subsequent reporting periods then only steps 6 and step 7 would be repeated.

1. Create Status Codes
2. Create Postal Queue
3. Create Email Queue
   a. Enter Queue Settings
      i. Subject, header and footer
4. Create Binding Set(s)
5. Configure the Action Binding Set
   a. Bind Intervention/Status Codes
   b. Add Postal and/or Email Actions to Status Codes
   c. Configure Postal Action
      i. Select which postal queue to use
   d. Configure Email Action
      i. Select which email queue to use
6. Create a Class Filter (Optional)
7. Create Compilation
   a. Configure submission period, Open and Publish
3.1.1 Creating Intervention Codes

Initially there will be no intervention codes defined within the system. Special care should be taken when creating new intervention codes since once they are used in a report by an instructor or referenced by other parts of the system they may not be removed or altered.

3.1.2 Creating Notification Queues

IMPORTANT: email features were designed to work in a scenario where WWCC was hosting AEW for multiple partner colleges. Getting email features to work will require additional software development work by your IT department any may be non-trivial.

The AEW system is designed to allow notification of students using either postal mail merges or email delivery. The system allows for each intervention code to be targeted to any number of Notification Queues to produce various subsets of the reported data that require different communication strategies.

The system can accept faculty reports without the definition of any notification queues and these queues may be created at will. Reports targeted for a particular postal queue will be made available in a machine readable text format for use in mail merges. Reports targeted for an email queue will be included in a system configured email form letter.
Postal Queue UI:

At least one postal queue must be defined in order for postal actions to be used. Note that once a postal queue has been created and then referenced by an academic alert you will not be able to remove it.

Queue Title: ___________________________  [Add Queue]

Existing Postal Queues

<table>
<thead>
<tr>
<th>Queue Title</th>
<th>Removal Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Default Intervention</td>
<td>[Remove]</td>
</tr>
<tr>
<td>[2] Honors Notification</td>
<td>[Remove]</td>
</tr>
<tr>
<td>[5] Clarkston Intervention</td>
<td>[Remove]</td>
</tr>
</tbody>
</table>
Email Queue UI:

This is a sample email alert. You can type a message for the email header and footer. The alert summary report will appear between the header and footer as shown here.

```
your header

Academic Early Warning - ALERT SUMMARY REPORT
REPORT FOR: STUDENT JOE (865000000)
Quarter: Spring 2007
Compilation Title: Spr 2007-1st Reporting
Compilation Id# 1

The following reports have been filed by the primary instructor of the classes you have enrolled in.

ITEM# COURSE START TIME
[0893] ECON 202 08:30A- INSTR: WALKER,D.
EXCESSIVE ABSENCES
LOW TESTS/ASSIGNMENT SCORES

your footer
```
3.1.3 Creating Action Binding Sets

Action binding sets provide a mechanism to reuse sets of selected intervention codes and their associated notification actions.

Creating a binding set:

Configuring a binding set:

Each intervention code that will be available for faculty to report must first be bound to the set. One of the bound codes may be set as the default. The default code is not automatically reported but is set as the preselected choice in the faculty reporting forms.

Each bound code may be assigned any desired number of notification actions. The list at the bottom of the page allows adding each type of action and summarizes the
configuration of each by showing the configured postal or email queue and any user defined remarks.

Postal Queue Binding Configuration:

Email Queue Binding Configuration:

The email queue selection determines which email form letter will be used. The send to advisor option will attempt to send a copy of the notification email to the student’s advisor as determined by the SMS system STU_D record.

3.1.4 Creating Compilation Class Filters

The email queue selection determines which email form letter will be used. The send to advisor option will attempt to send a copy of the notification email to the student’s advisor as determined by the SMS system STU_D record.

3.1.4 Creating Compilation Class Filters
From the **System Configuration** page select **Create Compilations Class Filters**. Enter a Name for the filter, select the quarter it will be used, then click the Create button.

After you create a filter you can either add courses by department or add **all** courses and then remove certain ones. Shown below, in the **Add Classes** section you can select a department (and course number if desired) then click the List Classes button to view the class section results. To add classes you need to highlight them and then click the Add Selected button. You will see the courses appear in the section above called **Classes currently included in the filter**. Another approach is to use the **Add All** button in the **Add Classes** section to add all the class sections offered, then highlight courses and click the **Remove Selected** button. This approach is easier if you only need to remove a small number of classes.

![Class Filter Editor](image)

**Tip**: To highlight multiple courses you can use:
- Ctrl key + the up/down arrow
- Ctrl key + Page Up/Down
- Ctrl key and left mouse click
3.1.5 Creating Compilations

From the System Configuration page select Create / Manage Compilations. The following screen captures show the main compilation configuration screen.

To edit an existing compilation click the configure link. To create a new compilation, select the desired Action Binding Set from the dropdown list. Each compilation must be assigned a single Action Binding Set that may not be changed later. Enter a short Name for the Compilation, enter a description and click the Create button.
Configuring a compilation

Set configuration settings for the compilation.

Configuration Summary:
- Published: Yes
- Open: Yes
- Action Binding Set Used: WW Production Set 1
- Compilation Name: FilterTest1
- Compilation Description: Test

Publishing the compilation allows users to see the compilation on the "Instructor Home" page. (NOTE: The compilation must also be open for the last submission date to be past.)

Status: Published.
[launch] [retract]

Opening a compilation is required for submissions to be accepted.
- Status: Open.
[open] [close]

Attach optional class filter: The compilation opening date determines the quarter from which classes will be available for reporting. Only filters that apply to the compilation's quarter will be listed.

[Winter 2008] ABE Cohort [ID: 1] [attach]
Active Filter: ---None---

Remove

The manual submission link is for when you want to collect reports but not publish the compilation for all instructors to see.
Submission link: http://localhost:4846/Login.aspx?cid=9

Finalize the Compilation: [finalize]

Compilation Details:
Submissions will be accepted starting on the open date and will be accepted through the end of the closing date. Instructor reporting rosters will be unavailable after the closing date. Important: The quarter for which classes will be presented to instructors is determined by the open date.

Submission opening day...  Submission closing day...

<table>
<thead>
<tr>
<th>Submission opening day...</th>
<th>Submission closing day...</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 25 26 27 28 29 30 1</td>
<td>24 25 26 27 28 29 30 1</td>
</tr>
<tr>
<td>2 3 4 5 6 7 8 9</td>
<td>2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>2 10 11 12 13 14 15</td>
<td>2 10 11 12 13 14 15</td>
</tr>
<tr>
<td>16 17 18 19 20 21 22</td>
<td>16 17 18 19 20 21 22</td>
</tr>
<tr>
<td>23 24 25 26 27 28 29</td>
<td>23 24 25 26 27 28 29</td>
</tr>
<tr>
<td>30 31 1 2 3 4 5</td>
<td>30 31 1 2 3 4 5</td>
</tr>
</tbody>
</table>

Compilation Name:
FilterTest1

Compilation Description:
test

Save Details
On the configuration page the current date will appear by default on both calendars. To define the submission period for this compilation, select the Submission Opening Day and Submission Closing Day using the calendars. When you click the Save Details button a confirmation is displayed and the dates are recorded above as the “Current Window.” You now need to open the compilation. Click the Open link to set the compilation to open and close during the specified window. If the Compilation should be available to all instructors on the Instructor Home page, then click the Published link (otherwise email them the manual submission link). After the compilation period expires, return here and follow the Finalize link to 1) generate the data file for the Postal Queues and 2) to send the Email Queues. This is discussed in the next section.

3.1.6 Finalizing a Compilation

When faculty submissions are complete for a given compilation and you want to utilize the system’s notification features you must first finalize the compilation. On the compilation configuration page for each compilation there is a finalize link that will direct you to the following screen like the following.

Finalizing the compilation pre-sorts the faculty reports according to the notification actions setup on the compilation’s associated Action Binding Set. After the compilation is finalized download links for any configured postal queues will become available and emails from all configured email queues may be sent using the “Deliver All” link.
3.1.7 Managing User Application Roles

![Image of User Application Roles interface]

3.2 Faculty Academic Alert Reporting

Faculty will only need to interact with a few screens in order to perform their reporting tasks. Faculty and all other users are initially dropped off at the “Instructor Home” page of the application.

3.2.1 Instructor Home

![Image of Instructor Home interface]

A number of conditions must be met for a compilation to be listed on this page. First the compilation must be open and published. The current date must also fall between the compilation open and close dates.

Additionally a compilation class filter may limit the faculty who will be presented with a compilation reporting link. If a filter is attached to the compilation then it will only be displayed to the instructor if they are the primary faculty for any of the classes included in the filter.

The report link for each compilation will direct the user to the Instructor Compilation Class Roster specific to that compilation.
3.2.2 Instructor Compilation Class Rosters

If a compilation filter is attached only the classes that are members of the filter will be displayed.

3.2.3 Instructor Alert Reporting Form
3.3 Basic Reports

All of the reports in this section are specific to a single compilation and do not span across different compilations. Access is not granted to these reports by default and additional application roles must be assigned to each user who will need access.

3.3.1 Finding the Desired Compilation

To begin select the compilation that contains the academic alerts you are interested in.

- Show all compilations that were open in the last 100 days. [search]
- Show all compilations open between the following dates:
  - Enter values in (mm/dd/yyyy) format.
  - [search]

<table>
<thead>
<tr>
<th>select</th>
<th>Id</th>
<th>Title</th>
<th>Open Dates</th>
</tr>
</thead>
</table>
3.3.2 Report Types

Once the compilation has been selected a number queries are available to retrieve various cohorts of students.

Each report will display the results in one of two modes: summary or detail. The summary mode reports only the frequency of each intervention code reported for the student. The detail mode lists the specifics of each class the student is enrolled in and the codes reported for that class along with any instructor comments.

The advisee search has been superseded by the purpose built Advising report and will probably be removed in future versions.

The manual cohort search allows user input of a list of student IDs.

3.4 Advisor Reports

This is the base page for the Advising Report.
The advising report allows the user to retrieve results for a student across many compilations.

### 3.5 Administrative Reports

Found under the “Admin Reporting” link.

#### 3.5.1 Institutional Research Report

The institutional research report flattens the underlying application database and exports all faculty reported data for use in external data analysis packages. Data is exported in a comma separated value text format.

#### 3.5.2 Instructor Participation Report

This is a compilation level report that summarizes the participation in reporting at the class level and includes numerous fields from the SMS and PPMS system to accommodate various reporting requirements. Use the “Prune results” option to filter the results according to the compilation class filter attached to the compilation. If no filter is available or if the option is not selected all class sections with positive enrollment will be included.
Appendix A - External System Dependencies

The application is dependant on a replicated version of the CIS SMS golden image.

All email features are dependant on a stand-alone web service that allows for maintaining a single email point of contact per SID. Each college wishing to use the email features must take their own steps to keep the email directory web service updated.
Appendix B – Application Database Design

**Table: AcademicAlerts**
Records in this table represent a single alert object within the system. Multiple InterventionCodes may be associated with the alert. Each alert is specific to a particular student within a class section within a given Compilation.

**Fields:**
- **AcademicAlertId [PK]** - Autogenerated key for academic alerts.
- **CompilationId [FK]** - (see Compilations table)
- **ClassMembershipId [FK]** - (see ClassMembership table)
- **Comment** - text that may be entered by an instructor.
- **CommentByUserId**
- **DateCommentSet**
- **DoNotContactStudent** - Flag that may be set by the reporting instructor and may be used by AEW to exclude the alert from various notification processes (email/postal)

**Table: ActionBindingSets**
Each record in the ActionBindingSets table is the root of an ActionBindingSet within the application. Action Binding Sets are used to bind a unique set of notification behaviors to given InterventionCodes. ActionBindingSets are permanently bound to a compilation when it is created but may be bound to multiple compilations. ActionBinding sets also determine the subset of InterventionCodes defined within the system that are available to Instructors for reporting within a given compilation.

**Fields:**
- **ActionBindingSetId [PK]** key is autogenerated and maintained by the DB engine.
- **SetName** - Friendly handle for users.
- **DefaultBoundInterventionCodeId** - Is used to control which intervention code is shown by default in the code selection drop down used by instructor when reporting.

**Table: BoundInterventionAction**
Each BoundInterventionCode may have any number of actions associated with it. Records in this table maintain an association between a BoundInterventionCode and one system notification action. Currently there are only Postal and Email actions defined.

**Fields:**
- **BoundInterventionActionId [PK]** Auto-generated key maintained by db engine.
- **InterventionActionId** - Is used by the application code to determine the type of action that has been stored in the InterventionActionXmlConfig field.
- **InterventionActionXmlConfig** - This field is used to serialize configuration information for the action that is bound.
- **BoundInterventionCodeId [FK]** (see BoundInterventionCode table)
Table: BoundInterventionCode
The BoundInterventionCodes serve as a mechanism to bind different notification behaviors to a given InterventionCode based on which action binding set is applied to a given compilation.

Fields:
BoundInterventionCodeId [PK] Auto-generated and maintained by db engine.
InterventionCodeId [FK] (see InterventionCodes table)
ActionBindingSetId [FK] (see ActionBindingSets table)

Table: ClassFilter
Each record represents the root of a ClassFilter object within the AEW system. Each filter is only valid for a given quarter as defined by the CIS SMS system. This is a result of the way Class entities are keyed in the CIS SMS system.

Fields:
FilterId [PK] - Auto-generated key maintained by db engine.
FilterName - Friendly name for users
FilterYrq - YRQ encoded string that uniquely identifies a particular academic year and quarter within the SBCTC system.

Table: ClassFilterBinding
This table records which filter is applied to a given compilation. The application is responsible for maintaining a maximum of one filter applied to any given compilation.

Fields:
RecordId [PK] Auto-generated
FilterId [FK] (see ClassFilter table)
CompilationId [FK] (see Compilations table)

Table: ClassFilterMembers
Records which class sections are a member of the class filter. When a filter is applied only the member classes will be shown on instructor rosters.

Fields:
RecordId [PK] - Auto-generated
ItemNumber - Values in this field originate from the CLASS_ITM_NUM value in the CIS SMS CLASS_D table. It is combined with the FilterYrq value to form a complete class key value.
FilterId [FK] - (see ClassFilter table)

Table: ClassMembership
This keeps essential information about which classes a student is enrolled in. This data is replicated from the SM system since it is possible that the source records in the SM may be deleted or removed. Students are never removed from the AEW class “rosters”. Current rosters are presented to instructors using data directly from the SM system.

Fields:
ClassMembershipId [PK] - Auto-generated
ClassSectionId [FK] - (see ClassSections table)
StudentId - The SID of the student who is or has been a member of the class at some point in time.
Table: ClassSections
This table is used to keep a local copy of the class sections defined in the CIS SM system. The current synchronization process will never delete a class even if it is removed from the SMS. If the primary instructor is changed the AEW application will update InstructorUserId field during one of its roster refresh cycles. The only scenario the application is unable to recover from is if the class section is completely redefined (assigned as an instance of a different course).

Fields:
- ClassSectionId [PK] – Auto-generated
- ItemNumber – CLASS_ITM_NUM from SM.CLASS_D
- ClassYrq – CLASS_YRQ from SM.CLASS_D
- InstructorUserId – SID of the employee listed as the primary instructor on the SM.CLASS_D record.

Table: CompilationOwner
Used to track who created the given compilation. User’s with limited permission will only be able to modify compilations that they created.

Fields:
- RecordId [PK] – Auto-generated
- UserId – User’s CIS SID
- CompilationId – (see Compilations table)

Table: Compilations
Each compilation is represented by a single record in this table.

Fields:
- CompilationId [PK] Auto-generated.
- ActionBindingSetId [FK] (see ActionBindingSets table)
- Name – Friendly name for the compilation
- Description – longer description
- CompilationOpen – flag indicating that reports may be filed to the compilation.
- DateOpenBegin – first day that instructors will be able to report student status.
- DateOpenEnd – last day that instructors will be able to report.
- CompilationFinalized – flag indicating whether or not the compilation has been finalized yet.
- DateFinalized –
- CompilationPublished – flag that controls whether the compilation will be displayed to instructors as an option for reporting. If a compilation is not published users have to be given the reporting URL and enter it manually.

Table: EmailQueues
Each email queue defines the format of a notification email. EmailQueues are referenced by BoundInterventionActions that are email type actions.

Fields:
- EmailQueueId [PK] – Auto-generated
- QueueTitle – friendly title assigned by admin user.
- EmailSubject –
- EmailBodyHeader –
- EmailbodyFooter –
Table: **FinalizedCompilations**
There will only be a maximum of one record in this table per compilation defined in the system. The finalization process takes the raw reports and sorts the results according to the actions that are defined for each intervention code in the Compilation’s attached ActionBindingSet.

**Fields:**
- **CompilationId** [PK,FK] – (see Compilations table)
- **LastFinalized** - timestamp
- **FinalizedResults** - An XML document containing the results of the finalization process.
- **FinalizationLog** - log populated by the finalization engine. Each time the finalization process is triggered.

Table: **InterventionCodes**
This table contains the definition of all intervention/status codes that are reportable by instructors. Once a code is associated with an ActionBindingSet or used on a student report it may not be removed from the system.

**Fields:**
- **InterventionCodeId** [PK] – Auto-generated
- **Title** - short title appears in reporting drop-down selection lists.
- **Description** – description of the purpose/intent for the code.

Table: **PostalQueues**
PostalQueues are used as a notification routing mechanism for sorting Alerts with specific intervention codes into various mail-merge output files.

**Fields:**
- **PostalQueueId** [PK] – Auto-generated
- **Title** - used as friendly handle in the configuration UI.

Table: **ReportedInterventionCodes**
Each academic alert object, of which there may be one per compilation per class section per student, may have any number of Interventions codes attached.

**Fields:**
- **RecordId** [PK] – Auto-generated
- **AcademicAlertId** [FK] – (see AcademicAlerts table)
- **BoundInterventionCodeId** [FK] – (see BoundInterventionCodes table)
- **ReportedByUserId** – CIS SID of the user who filed the code report.
- **DateReported** - timestamp

Table: **Roles**
This table is the master list of possible roles assigned to user accounts that the AEW system may use to make feature authorization decisions.

**Fields:**
- **RoleId** [PK] – Populated by installation script.
- **Title** - short title for a given application role.
- **Description** – longer description of access granted by this role.
**Table: UserRoles**
This table records the roles assigned to user’s within the AEW system.

**Fields:**
- RecordId [PK] - Auto-generated
- UserId [FK] - (see Users table)
- RoleId [FK] - (see Roles table)

**Table: Users**
The records in this table are used to relate any additional roles and user specific privileges to their login account.

**Fields:**
- UserId [PK] - is the user’s Employee CIS SID
- NameFirst - may be replicated from CIS EMP_M or hand entered if the EMP_M data was unavailable for some reason.
- NameLast - may be replicated from CIS EMP_M or hand entered if the EMP_M data was unavailable for some reason.
Appendix C - HP3000/SM data usage.

All tables listed in this section conform to the CIS rehosting project’s “Golden Image” version 4 schema definition.

The AEW application does not maintain a user account repository. Authentication is handled by the CIS Web Transaction server. The authenticated SID is then used as the AEW UserId and is used in subsequent queries against the SM dataset.

**Table: ADV_D**
This table provides the only source for which employee is considered the advisor for a specific student. Starting with an employee’s SID the table linking proceeds as:

- EMP_M.SID =>
- EMP_M.EMP_ID =>
- ADV_D.INSTR_ID =>
- ADV_D.ADV_ID =>
- STU_D.ADV_ID =>
- STU_D.SID

**Table: CLASS_D, CLASS_D_SCHD**
There is a 1:1 relationship between the CLASS_D tables. They are used by AEW to construct the list of all possible class sections offered by the college. The AEW application will periodically sample this table and replicate the keys to its own table. (see AEW ClassSections table)

Once seen a class will never be removed from the AEW replicated index but if the primary instructor changes that will be reflected in the AEW database.

The AEW system will also only sample classes for the current quarter and in the future.

**Table: COURSE_D**
Every class section is an instance of a course and this table serves as the master for course definitions.

**Table: DAY_D**
A state provided table that translates the DAY_CD field into the weekly day sequence that a class is offered.

**Table: EMP_M**
AEW uses this table for all employee/user information. If the record for a particular user is missing they may be able to login but the system will not be able to determine their name or be able to lookup the EMP_ID field which is used in links to advisor and class section records and various other fields.

**Table: STU_CLASS_D**
This table is used to determine which students are members of a given class. This table is used in two ways. First the AEW system will periodically sample this table and associate students to the records in the AEW ClassSections table. These records are kept in the AEW ClassMembership table. Records are never removed from the ClassMembership table in order to preserve historical reports if the
student is later removed from the class. Secondly the AEW system will use the current state of this table in order to determine which students should be shown on an instructor’s reporting roster.

Table: STU_D

Table: UNUSUAL_ACTN_CD
Used to group students into cohorts for queries based on Unusual Action codes assigned to the students.

Table: UNUSUAL_CD_M

Table: YRQ_M
Used by the AEW system to determine which Academic Year/Quarter a given day falls into.