

## Business Rules for Student Academic Records & Transfer Articulation EDW

### General Information about Student Records & Transfer Articulation

In October 2004 UI Integrate and the Registrars of each campus adopted Banner as the operational system for academic Records. During October UII and the Registrars converted and proofed data from their respective legacy systems (UIDirect at UIUC, ISIS at UIS, and ISIS 3 at UIC). This academic history was imported into Banner. As a result the EDW extracted, transformed and loaded legacy academic history data from Banner.

Below is the proposed conversion schedule from legacy to Banner.

#### Project Timeline (as of 8/12/04)

- **October 1-3** – Banner conversion of continuing student data
- **October 4** – **Records EDW goes live**
- **October 4-14** – Campus OAR review of converted continuing data
  - Expect changes to Records data during this time
- **October 11-14** – Banner conversion of non-continuing student data
- **October 18-22** – Campus OAR review of converted non-continuing data
  - Expect changes to Records data during this time

Some converted records from legacy systems may date as early as 1929 (UIUC), 1947 (UIC), and 1970 (UIS), this does not mean that the legacy systems had all of the academic history for all the students from those years. For example when UIC adopted ISIS3 in 1982, not all records were entered from the paper archives, or converted from ISIS2. Through the years if a student returned to study at UI their archived record from paper or a prior system was entered into the current records system.

### Deficit points:

Deficit points are an academic advising tool used at UIC. Deficit points represent the grade hours that a student's grade point average falls below a specific grade point average, which is needed to maintain or achieve good academic standing. They provide an easy method of calculating how many A's or B's a student needs to re-establish good academic standing (2.0 or C average at the undergraduate level, 3.0 or B average at the graduate level).

Deficit points are not calculated by Banner and therefore derived by the EDW.

Level deficit points are based on the student's GPA at the undergraduate level (all of the classes and grades that they took as an undergraduate student). Calculated and stored for level 2U students only.

Term deficit points are based on the student's GPA for classes and grades earned in a specific term. Calculated and stored for level 2U students only.

Degree deficit points are used exclusively by the UIC graduate college. While similar to level and term deficit points, the degree deficit points are based on the student's degree GPA. The degree GPA is determined by earned credit hours and grades for courses that apply to a student's sought graduate degree. The degree deficit points are based on a 3.0 or B as the minimum GPA to maintain good academic standing. Calculated and stored for level 2G students only.

Progress toward degree for undergraduate colleges at UIC and UIUC is tracked and calculated by DARWIN or DARS. In the future UIS and the Graduate colleges at UIC and UIUC are slated to adopt this system to track progress toward degree.

Darwin “articulates” Institutional coursework (courses taken at the University of Illinois campuses), Transfer course work (courses taken at another institution and accepted for credit at UI, or courses taken at one campus of UI and accepted at another UI campus), Test Based credit (tests taken and accepted for college credit at a UI Campus e.g. CLEP). Articulated credit (courses, earned hours, and grades that apply toward a UI degree) is then stored in Banner from Darwin. The EDW extracts, transforms, and loads nightly from Banner. Please see the Appendix below on the specifications of how Transfer data will be initially brought into Banner from Darwin.

The following is a listing of the core tables that carry Academic Records and Transfer Articulation.

**Transfer Course Table** Loaded from the Banner SHRTRCR table

This table contains the Source Course information. Transfer course work is entered into Darwin and Darwin loads this information into Banner

**Equivalent UI Course** Loaded from the Banner SHRTRCE table

This table contains the Institutional Target Course information. After Darwin articulates the transfer course work the UI equivalent courses are loaded into Banner from Darwin.

Examples below show sample data and the challenge of building a report that shows Credit received at UI and which courses contributed toward that credit.

Student's (PIDM 107743) five courses are accepted for transfer to U of I as shown below:

SHRTRCR									
VPDI Code	PIDM	TRIT SEQ NO	TRAM SEQ NO	TRCR SEQ NO	Transfer Course Name	Transfer Course Number	Transfer Credit Hours	Group	Group Primary Indicator
2UIC	107743	1	1	1	ENGL	101	3.0	1	Y
2UIC	107743	1	1	2	ENGL	102	3.0	1	
2UIC	107743	1	1	3	MATH	101	3.0	2	
2UIC	107743	1	1	4	MATH	102	3.0	2	Y
2UIC	107743	1	1	5	BIOL	220	3.0	3	Y

After transfer articulation process has been performed, the U of I courses for which the student receives credit are as shown in the example below:

SHRTRCE								
VPDI Code	PIDM	TRIT SEQ NO	TRAM SEQ NO	TRCR SEQ NO	TRCE SEQ NO	Subject Code	Course Number	Credit Hours
2UIC	107743	1	1	1	1	Eng	102	3.0
2UIC	107743	1	1	4	2	Math	102	3.0
2UIC	107743	1	1	5	3	Bio	101	3.0
2UIC	107743	1	1	5	4	Bio	102	3.0

### Problem

There is not an easy way to see all transfer course work and the equivalent U of I course(s) for which the student receives credit. For example, the data in SHRTRCE shows transfer course ENGL 101 "equates" to U of I course Eng 102. However the data in SHRTRCR shows transfer courses ENGL 101, and ENGL 102 belong to one group and together equate to U of I course Eng 102. Example of creating a report based on the above setup shown below:

VPDI Code	PIDM	TRIT SEQ NO	TRAM SEQ NO	TRCR SEQ NO	TRCE SEQ NO	Transfer Course Name	Transfer Course Number	Transfer Credit Hours	U of I Subject Code	U of I Course Number	U of I Credit Hours
2UIC	107743	1	1	1	1	ENGL	101	3.0	Eng	102	3.0
2UIC	107743	1	1	2	1	ENGL	102	3.0	Eng	102	3.0
<b>Sub Total</b>								<b>6.0</b>			<b>6.0</b>
2UIC	107743	1	1	3	2	MATH	101	3.0	Math	102	3.0
2UIC	107743	1	1	4	2	MATH	102	3.0	Math	102	3.0
<b>Sub Total</b>								<b>6.0</b>			<b>6.0</b>
2UIC	107743	1	1	5	3	BIOL	220	3.0	Bio	101	3.0
2UIC	107743	1	1	5	4	BIOL	220	3.0	Bio	102	3.0
<b>Sub Total</b>								<b>6.0</b>			<b>6.0</b>

Notice how for a total of 6.0 hours of transfer courses ENGL 101, and ENGL 102 the above report shows the student receiving 6.0 hours of credit for U of I course Eng 102 even though it should be shown as 3.0 hours of credit. Likewise for transfer courses MATH 101, and MATH 102 the report shows the student receiving 6.0 hours of credit for U of I course Math 102 even though it should be shown as 3.0 hours of credit.

### Student Course Detail

DS created this table in order to allow users to view courses by type (Transfer, Test Based Credit and Institutional).

### Test Result History

This is the Banner SOATEST form that contains a student's test scores.

This table is also used in other increments of student data

### Transfer Institution

This table is the combination for the SHRTRIT and SHRTRAM tables from Banner to allow easier reporting from one table in the EDW.

This table contains attendance period sequence number.

### Student AH Crs Applied Degree Hist

This table was brought into the model in order to support functionality for the UIC – Graduate College Office.

### Student AH Degree GPA History

This table will be used to calculate Degree GPA, Degree Academic Standing, and Degree Deficit Points for UIC Graduate Students

## Degree GPA:

While Banner does calculate a degree GPA the calculation is only valid if Banner is maintained to indicate which classes apply to specific degrees. Only UIC's Graduate College intends to perform this maintenance. Banner does not store the degree GPA. It is derived and stored in the EDW. The UIC graduate college identified this as a need when Banner did not have the same functionality that reports from ISIS3 offered. Darwin is not yet suited to assist the UIC graduate college in this manner.

### **Student Academic History Degree History**

This table contains the degree information per person.

**For a new beginning student at UI the degree sought will not be entered into this table until the student has completed their first semester and earned grades. This table will record the degree sought at the end of a term. During the student's first term we expect the degree sought and curriculum information to be null.**

The Student Term table, however, will be updated throughout the term with a student's curriculum information. The student term table is the source of choice for a student's current major during a term.

### **Student Academic History Course**

This table contains the Institutional Courses taken by a student.

### **Student Academic History Course Attribute History**

This table contains the Course Attributes for a course taken.

### **Student Academic History Term**

This table contains the calculated class codes by term based on completed hours and end of term Academic Standing.

### **Student Term GPA History**

This table contains the types of GPAs available for a term.

Courses taken for credit/no credit will be counted based on the credit grade code rules set on SHAGRDE in Banner. Typically, the credit grade codes are set to count in attempted, earned and passed, but not to count in the GPA divisor hours. So, courses taken where a CR grade was received, the hours taken would be included in the following EDW fields:

- Term GPA Attempted Hour
- Term GPA Earned Hour
- Term GPA Passed Hour

For the course taken where a CR grade was received, the hours would not be counted in the Term GPA Hour or Term GPA Quality Point.

### **Student Term**

This table is from Pre-Registration and Registration

This table will reflect the student's current major for the current and prior terms.

### **Student AH Level GPA History**

This is the SHRLGPA table from Banner.

This contains the GPA(s) that a student has achieved by their student level (graduate or undergraduate). A cumulative GPA by level.

### **Level Transcript Comment**

This table will be used as "placeholders" for institutional certification and other messages to be printed on a student's transcripts.

The effective dates listed in this table are for future dating comments on a student's transcript.

### **Term Transcript Comment**

This table will be used as "placeholders" for term based comments (i.e. James Scholar) and other messages to be printed on a student's transcripts.

The effective dates listed in this table are for future dating comments on a student's transcript.

### **Student Academic History Misc Event**

This table contains information regarding a student's University Honors (Bronze Tablet Award) and Graduate School Qualifying Exam information.

### **Student Academic History Cohort**

This table contains student cohort information. This table (in Banner) has security around it to prevent changes to the Cohort. If this can be changed at anytime, the usefulness of this table is reduced.

The SGASADD (Student Additional Information) Form will have security set by the UI2 security group based on input from university contacts (mainly OAR). Teresa Silva at UIC is the UI2 contact for who will be given initial maintenance access to this form.

### **Student Academic History Course Level History**

This table contains the course level associated with a student's institutional course work.

### **Student Academic History Course Grade History**

This table contains the grades and quality points associated with a student's institutional course work.

### **Student AH Degree Honors History**

This table is a DS derived table that is a combination of the Departmental and Institutional Honors tables from Banner. These honors are tied to the Degree Status of a Student.

This will allow a user to select these honors as columns and not row for an individual student for ease of use.

## 07/26/04: Proposed spec changes for Transfer Credit and Pre-Banner Summary Hours

**UIUC:** No spec change. The current conversion specs are the best option for UIUC. Detail transfer credit will be converted as transfer "source" records (SHRTRCR), with summary GPA data converted as pre-Banner summary hours (SHRTGPA/SHRLGPA). The transfer institutions will not print on the transcript. Only the PRE-SYSTEM summary hours and GPA by student level will print on the transcript.

**UIS:** UIS is currently converting a single transfer "source" record per student transfer institution, with block credit hours converting as pre-Banner summary hours. Two spec changes are needed:

- TC spec change: For each "source" record where transfer credit for the institution is >0, also convert a "target" record (SHRTRCE) with:
  - block credit hours;
  - grade mode of 'T'; ?
  - grade of 'CR' which counts in attempted, passed, earned, but not in GPA hours;
  - title should be defaulted to 'Block Transfer Credit Accepted';
  - subject code = 'XTRC'
  - course number = 'XXX' in all cases (for all levels);
    - **Verifying:** Kate is sending a separate message to Kevin Jones and DS regarding whether there are any problems with the use of 'XXX' as the course number for the SHRTRCE records, as far as reporting goes.
  - 'Count in GPA' set to 'Y', which will cause the GPA summary hours to be created.
- PB spec change: Do not create pre-Banner summary hours.

**UIC:** UIC is currently converting all transfer institution attendance periods (SHRTRAM), and all transfer courses as transfer "source" records, with summary hours accumulated by student level as pre-Banner summary Earned hours when the 'N' field on the course is blank (accepted credit). Spec changes are as follows: convert all courses under a single attendance period, using "SUMMARY FOR" as the default for attendance period field, which prints on the transcript immediately preceding the institution name, on the same line.

- TC spec change:
- Transfer Institutions (SHRTRIT). Each one of these prints on the transcript: no spec change. Banner requires the student SBGI to be unique, so an institution will no longer appear multiple times, as in ISIS3.
- Attendance periods (SHRTRAM). Each one of these prints on the transcript:
  - Rather than converting all attendance periods for an institution, convert only one attendance period per student level with transfer data from an institution.
    - All transfer courses will appear under a single attendance period for the student level on SHATRNS.
    - The courses will remain in the same sequence.
  - Rather than converting the free-format data in the 12-position "attendance period" field, default this field to "SUMMARY FOR".
- "Source" course records (SHRTRCR). These do not print on the transcript:
  - No spec change. Retain the logic to format the extract record key field for course number by concatenating the institution sequence number, attendance period sequence number, course sequence number. This should keep all courses for that institution in the same order as in ISIS3.
- "Target" course records (SHRTRCE). These do not print on the transcript. However, these will create GPA data, which will cause summary GPA totals for the attendance period to print on the transcript:
  - Create a "target" course record for each "source" course record:
    - When the 'N' field (TRCR-SYMB) is blank
    - When the 'N' field is non-blank and the course grade is 'E'
  - Format the "target" record fields as follows:
    - Course subject code defaulted to "XTRC".
    - **Verify:** Course number defaulted to "100" for levels 2U, 2X; defaulted to "500" for levels 2G, 2Y; defaulted to "600" for level 2P.

- **Verify:** Course title will be same as “source” course title.
  - Grade code crosswalked to Banner grade code.
    - **Verify:** this may require adding the grade mode field to the Extract for crosswalking. Check whether other fields are needed to use this xwalk.
  - Grade mode defaulted to ‘T’.
  - Count in GPA defaulted to ‘Y’.
- PB spec change: Do not create pre-Banner summary hours.
- UIC Test Based Credit
  - The current conversion plan includes creating the course equivalencies for all TBC, as courses stored under specific TBC FICE codes. These FICE codes will automatically cause each course equivalency detail record under those student FICE codes to be printed on the transcript.
  - Courses where the grade is not M, U, IP, and the ‘N’ field is blank (count-in) will have a course equivalency.
  - The grades will all be “PS” which counts in Passed and Earned Hours, and does not count in GPA Hours.
  - The grade mode will be defaulted to ‘T’.
  - The subject codes will be crosswalked to STVSUBJ.
  - **Verify:** The course number will be defaulted to “100” for levels 2U, 2X; defaulted to “500” for levels 2G, 2Y; defaulted to “600” for level 2P.
  - **Verify:** The course title will be the same as legacy and the source course.
  - The “count in GPA” flag will be set to ‘Y’ to populate the Attempted, Passed, Earned Hours fields on the GPA records.
  - Pre-Banner summary hours are not converted for TBC.