

## Defining the Universe

UCSC Data Warehouse's Student universe contains information for analyzing student enrollment and performance over time. Information is collected from source systems at specific points in time (censuses) for a specific student population – those students who qualify the campus for state funding according to UCOP guidelines. This data set is intended for cross-sectional and longitudinal analysis and for generating certain official campus reports. This data is not intended for operational reporting.

### Source Systems

Source systems supporting the student universe have changed over the years. Data from the various sources has been re-formatted to present a consistent history when appropriate.

The data sources are currently four-fold:

- Student Information System (SIS), the campus' student information operations system-of-record, provided data effective through Summer 2004
- Academic Information System (AIS), the campus' student information operations system-of-record, began providing data effective Fall 2004
- Santa Cruz Integrated Instructional Planning Information (SCiPI), the campus' instruction auditing system, began providing data in Fall 2004, including some retroactive information
- UC Office of the President provides some grouping data elements, such as Home Location and Last School Attended regions.

The specific data sources are as follows:

#### Demographics, Registration, Majors, Degrees

1989 – Summer 2004: SIS/Student Information System  
Fall 2004 – now: AIS/Academic Information System

#### Course Enrollment

1989 – Summer 1996: SIS/Student Information System  
Fall 1996 – Winter 2005: SCiPI/Santa Cruz Integrated Instructional Planning Information  
Spring 2005 – now: AIS/Academic Information System (instruction updated by SCiPI)

#### Department hierarchies based on subject and major

1989 – now: SCiPI/Santa Cruz Integrated Instructional Planning Information


Data is sent to the Data Warehouse as specific snapshots in time that mimic the information the Registrar's Office officially sends to UCOP. These snapshots represent the third-week of each term, the end of each term, and the quarterly degrees. However, the data is not loaded until after UCOP has approved the submissions. See <https://datamgmt.ucsc.edu/infoview/universes/data-loads.html> Highlights for the most recent loads.

## Features and Limitations

The Student universe includes some custom analytical features, including:

Name elements (student name, department name, major name, etc.) that can be viewed in two ways:

- "...=>Term" objects are historically accurate at the given academic term
- "...=>Latest" objects present the most recent name, for consistent cross-term analysis

Several predefined query conditions are available 

Various pre-calculated measure (mathematical) objects. Examples include fractionalized counts for distinguishing different methods of counting students, classroom meeting time calculated to include or exclude travel time between classes, retention and graduation rates, etc.

Various custom hierarchy and grouping objects for replicating official reporting requirements. Examples include, department mapping for majors and subjects, ethnicity groupings, cohorts, etc.

Only certain demographic, enrollment, and degree information are included in the Data Warehouse. The following types of data are not available from the Data Warehouse:

- Student Tuition and Fee payments
- Financial Aid
- Applicant Data (from annual admissions process)
- Enrollment Data prior to 3<sup>rd</sup> week or between 3<sup>rd</sup> week and end of term
- Grades or other updates after end of term
- Degrees awarded retroactively after one year has passed

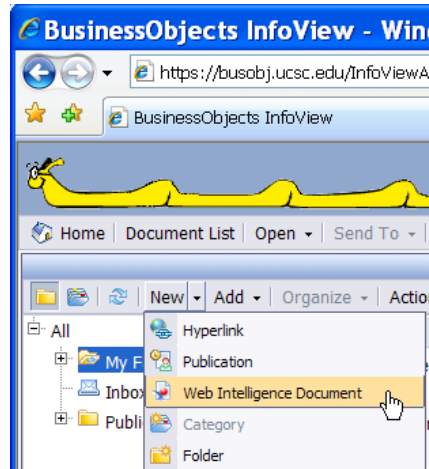
The Student Universe contains demographic and personal information about registered students. Those with access must comply with certain policies and restrictions regarding use and disclosure of student information, including without limitation:

- UCSC Student Affairs/Registrar's Office <http://reg.ucsc.edu/>
  - UCSC Administrative Procedures Applying to Disclosure of Information from Student Records <https://registrar.ucsc.edu/records/privacy/>
  - UCSC Public Records Requests/Information Asset Management <https://infopractices.ucsc.edu/faqs/>
  - California Information Practices Act (formerly, Senate Bill 1386) <http://infopractices.ucsc.edu/request-forms/index.html>
- US Department of Education
  - FERPA <http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

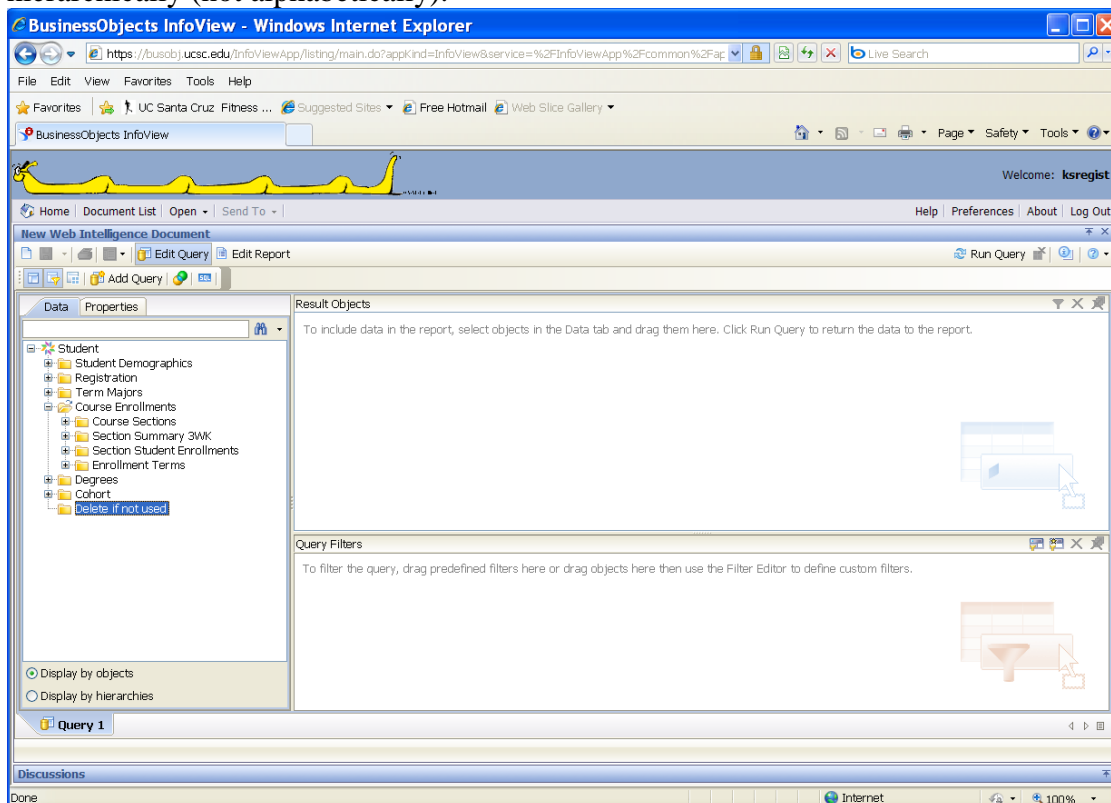
If you have been granted access to objects marked “RESTRICTED”, please be extremely careful to comply with policies governing use, storage and distribution of information, particularly proper handling personal identity information (“P.I.F”) such as Social Security Number, birthdate, or address. See <https://its.ucsc.edu/security/index.html> for more information.

## Exploring the Universe

**Activity #1:** Start a new document to review the Student universe contents in the “Edit Query” Panel.



The Query Panel shows the following classes of data available for use. Objects are arranged hierarchically (not alphabetically).



**Classes Defined**

**Student Demographics (back to 1989):** *One record per student, updated if necessary each extract.*

This class contains demographic and personal information about registered students. Examples include student identification number, name, gender, ethnicity, info release flag (whether or not a student has given permission that certain information can be released for certain purposes), etc. In addition to these demographics, sub-classes are available as follows:

**Addresses:** *One record per student per extract.*

Non-confidential components of a student's local and permanent address for purposes of regional analysis.

**Home Location:** *One record per student per career.*

Hierarchical/geographical groupings for each student's home location.

**Last School:** *One record per student per career.*

Hierarchical/geographical groupings for the last school each student attended.

**Service Program:** Remnant from SIS system. No longer used.

**Entry Student:** *One record per student per career, updated if appropriate each extract*

Specific demographic information from the first term a student is registered. Most of this information is from the student's application for admittance. Application information for non-admitted students is not included. In support of this demographics-at-entry information, additional sub-classes are available as follows:

**SAT/ACT Scores:** SAT and ACT scores for undergraduate students.

**Placement Scores:** Math, Chemistry, Biology and Spanish placement scores for undergraduate students.

**Entry Student Term:** A set of calendar objects available for use in analysis.

**Entry Student Majors:** Information about the major(s) that each student initially proposed or declared at the time of admission.

**Entry Student Special Programs:** Any special programs under which a student may have been admitted. Examples include regents scholars, high school honors, dual degree, sports programs, etc.

**Note:** The Student Demographics objects, particularly the Entry Student objects, can be used with Registration, Course Enrollment, or Term Majors.

**Registration (back to 1989):** *One record per student per term and extract.*

This class contains information relative to each student's registration in each academic term and extract (3WK or EOT). Examples include student level, registration status, attempted and earned hours, grade point average, age, UCOP ethnicity, major, degree objective, etc. In addition to this information, sub-classes are available as follows:

**Registration Special Programs:** Indicators of students participating in special education programs, such as disability level.

**Registration Terms:** A set of calendar objects available for use in analysis.

**Registration Reg Status:** Information indicating students registration status in a given term and extract. Examples include, UCOP/CSS official registration status, academic standing, participation in professional degree program(s), residency, EOP or special action status, education abroad program participation, etc.

**Registration College and Class:** Information about each registered students class level and college in a given term and extract. Examples include, career (UG or GRAD) and level (Freshman, Junior, Masters, Doctorate-Advanced to Candidacy, etc.).

**Note:** The Registration classes and objects have been reproduced within both the Term Majors and Course Enrollments/Section Student Enrollments classes. These reproductions have been slightly modified to work with the other objects in those classes without causing the report to run slowly.

**Term Majors (back to 1989):** *One record per student per major per term and extract.*

This class contains information about the major(s) (a.k.a. academic program) that each student has proposed or declared at each extract. Examples include major code, department and division hierarchies, headcount, major fraction (equivalent headcount), degree objective, discipline, etc.

**Term Major College and Class.** Replication of the "Registration College and Class" objects to optimize query performance.

**Term Major Term.** A set of calendar objects available for use in analysis.

**Term Major Reg Status.** Replication of the "Registration Reg Status" objects to optimize query performance.

**Note:** Term Majors should not be mixed with Course Enrollments in the same query. The report will run excruciatingly slow, and the results will be inaccurate because students are counted using different methods. Example: One double-major student in three sections returns 6 rows of data. Recommend using subqueries if your need to mix is criteria related, and multiple data providers if your need to mix is to display values from both sets.

**Course Enrollments (back to 1989):** *One record per student per section per term and extract*

This class contains information about specific course sections each student has enrolled in each term at 3WK or EOT.

**Course Sections**

General information about course sections, such as subject, course number, section number, location, meeting times, instructor, department, etc. For years 1996 through 2003, such instruction information has been updated from SCiiPI. Beginning Fall 2005, instructor, cross-list indicator, location and time as well as non-credit section enrollment is updated from SCiiPI to Student universe on a nightly basis.

**Section Summary 3WK**

Counts of enrollment, credit, and instructors. The counts are not directly linkable to individual student enrollment records or instructor records because they have been pre-summarized. For individual student or instructor records, use Section Student Enrollments. For years 1996 through 2003, includes any non-credit secondary section enrollment changes or additions from SCiiPI. Beginning Fall 2005, non-credit section enrollment counts are updated from SCiiPI on a nightly basis. Summarized EOT measures do not exist. Including measures from this class in your query will automatically restrict the results to 3WK data only.

**Section Student Enrollments**

Information about the individual students enrolled in the sections, including unofficial grades (only those entered in SIS/AIS by the end of term) and completion of general education requirements.

**Enrollment Terms**

A set of calendar objects available for use in analysis.

**Note:** Course Enrollments should not be mixed with Term Majors in the same query. The report will run excruciatingly slow, and the results will be inaccurate because students are counted using different methods. Example: One double-major student in three sections returns 6 rows of data. Recommend using subqueries if your need to mix is criteria related, and multiple data providers if your need to mix is to display values from both sets.

**Degrees (back to 1985):** *One record per student per term per major or degree awarded*

This class contains information about degrees awarded. A degree is granted to a single student in a single term. There will be one or more degree/college/major combinations associated with a degree. Degree information is captured on a revolving four quarter cycle. This means that retroactive degrees will be included if they are entered in AIS within one year of the degree term. This class also contains additional demographic information, primarily from UCOP records, that may be different from what can be found in the Demographic class. Sub-classes for grouping information exist as follows:

**Degree Term**

A set of calendar objects available for use in analysis. It should be noted that the “degree term” follows a different numbering system than the “academic term”.

**Term Degrees**

This class represents the majors a student has completed to receive a degree. A student may receive degrees in multiple (usually less than or equal to three) majors in any one term. Various objects exist for counting degrees, some based on student headcount, some that fractionally split degrees and majors between departments.

**Cohort (groups identified annually back to 1989):** *One record per student per cohort per year*

This class contains pre-defined groupings of students based on a common set of conditions (a.k.a. cohorts). Cohorts in effect pre-apply a restriction that forces reports to run only on members of a specific cohort group. For example, “freshmen entering in the fall term of a year” constitute an important cohort group that is the basis of many studies for student retention, teaching effectiveness, and other long-term studies.

Cohort objects should not be mixed with objects from other classes in the same query. The report will run excruciatingly slow, and the results may be inaccurate because students are counted using different methods. Recommend using subqueries if your need to mix is criteria related, and multiple data providers if your need to mix is to display values from both sets.

Because cohorts are pre-defined, they should be used cautiously in reports to prevent misinformation or misinterpretation. Please contact Julian Fernald of Institutional Research and Policy Studies to confirm appropriateness and accuracy when using cohorts for analysis.

**Cohort Initial Demographics**

Information from the Entry Student class that has been replicated to work with cohort data.

**Cohort Initial Majors**

Information from the Term Majors class that has been replicated to work with cohort data, at the time the student was added to the cohort.

**Cohort Term Major-Fall 3WK Only**

Information from the Term Majors class that has been replicated to work with cohort data from a Years Out perspective, but only Fall 3WK of each Year Out.

**Cohort Degrees Earned**

Information from the Degrees class has been replicated to work with cohort data from a Years Out perspective.

**Object Definitions**

Definitions of each object in each class can be found in the Student universe data dictionary at <https://datamgmt.ucsc.edu/infoview/universes/universes-general/student/Student-Universe.pdf>

**Helpful Hints****Ensuring Data Integrity: Common Query Conditions****Time Elements****Term vs. Degree Term**

For demographic and enrollment information, the term numbering UCOP standard is 3=Summer, 4=Fall, 1=Winter and 2=Spring. However for degree information, the term numbering UCOP standard is 1=Summer, 2=Fall, 3=Winter, 4=Spring.

**Academic Year vs. Degree Year**

The standard terms in an Academic Year are Summer, Fall, Winter, Spring. However, Degree Year was developed for use in certain Instructional Research reports to UCOP that require the year be Fall, Winter, Spring, Summer.

**SIS Term vs. AIS Term**

Most of the term code objects refer to the SIS coding sequence.

20063 = Summer 2006                      20071 = Winter 2007

20064 = Fall 2006                            20072 = Spring 2007

You will find term objects labeled “AIS”, which use the coding sequence.

2064 = Summer 2006                      2070 = Winter 2007

2068 = Fall 2006                            2072 = Spring 2007

You will also find term code (alpha), which are much more user friendly.

X = Summer                                      W = Winter

F = Fall    S = Sprint

**Term Description**

The Term Description object works regardless of the code set. But be careful about using Term Description in a query condition when you want to capture a range of time. If you have a condition statement “Term Description between 2005 Winter Quarter and 2006 Winter Quarter” you will inadvertently exclude 2005 Spring Quarter and include 2006 Spring Quarter because it’s searching for data that falls alphabetically in the range.

**Extract Type****3WK vs. EOT**

To prevent duplicate data it is important to keep in mind whether you want third week or end of term demographic, registration, major enrollment information.

Third week is considered “the official census” for budget purposes. Pre-defined conditions exist for all relevant classes.



**Registration Status**

## UCOP CSS Registration Status

Effective Fall 2004 the method for determining student registration status changed in the data warehouse. The new method is to follow the UCOP code values

N = New

C = Continuing

R = Readmit or Return from Leave of Absence

W = Withdraw (at EOT only)

- = Other

When determining the number of registered students for official reporting, pre-defined conditions exist for the two most common practices.

1. To exclude “-“ and “W” and students
2. To also exclude students with an RRS Cur Special Grad Prof Degree code

**Majors vs. Minors**

## Major Status Aggregate

Beginning Fall 2004, minors are included with major codes. When preparing major count reports, be sure to exclude minors.

**Exploring Corporate Documents**

A set of Corporate Documents has been loaded to InfoView XI™ for your use. You'll find a list of the available reports as well as .pdf samples at <https://datamgmt.ucsc.edu/infoview/universes/report-samples.html>

The reports are organized under the following categories:

- Student Details
  - Courses
  - Headcount
  - Majors
- Student Non-certified Drafts
- Student Statistics
  - Courses
  - Headcount
  - Majors

The PPS set of corporate reports have a naming convention which is comprised of:

- Relevant Academic Affiliation population – Campus, Division, Department, Major, Course
- Report description – brief statement to give you an idea what the report is for
- Timing – Term (a single term) or History (a range of terms or years)

Examples:      Campus-Declared and Proposed Majors-Term  
                    Course-Pass Rates-History



Corporate reports have been specifically designed to meet common reporting needs and have undergone a certification process to validate accuracy and document their purpose. A full description of the certification process can be found at <https://datamgmt.ucsc.edu/infoview/corporate-docs/cert-process.html>

### **Not sure How to Find and Run Corporate Documents?**

Watch our Online Training modules at <https://datamgmt.ucsc.edu/help-training/infoview-help/how-do-i/read-reports/index.html>

**Activity #2:** Review **Dept-Headcount Majors-History** (from Statistical set)

Observations:

- Department Name can be selected hierarchically (use Advanced or Refresh Data button)
- Table and Chart on same page
- Three Quarter average vs. Headcount
- 

**UC Santa Cruz**  
**Graduate Majors Headcount History - Three Quarter Average Based on Third Week Enrollments**  
 From 2004-05 through 2008-09  
 Run Date: 3/2/10

Department: Psychology

Major	Degree Objective	2004-05	2005-06	2006-07	2007-08	2008-09
Psychology	MS	0.3	1.0	1.0	0.3	
Psychology	PHD	57.0	54.7	60.3	64.3	64.7
Dept Total		57.3	55.7	61.3	64.7	64.7

**History of Department Graduate Majors**

Refresh Date: March 2, 2010 11:32:38 AM GMT-08:00

Prompts

Reply to prompts before running the query.

- ✓ Select First Academic Year in Range: 2004-05
- ✓ Select Last Academic Year in Range: 2008-09
- ✓ Select Department Name: Anthropology

Refresh Values

- Arts Division
- Humanities Division
- Individual
- Interdisciplinary
- Limited
- Not an IR Division
- Physical and Bio Sciences Div
- School of Engineering
- Social Sciences Division
- Anthropology
- Community Studies
- Economics
- Education

Select Department Name: Anthropology

More Information

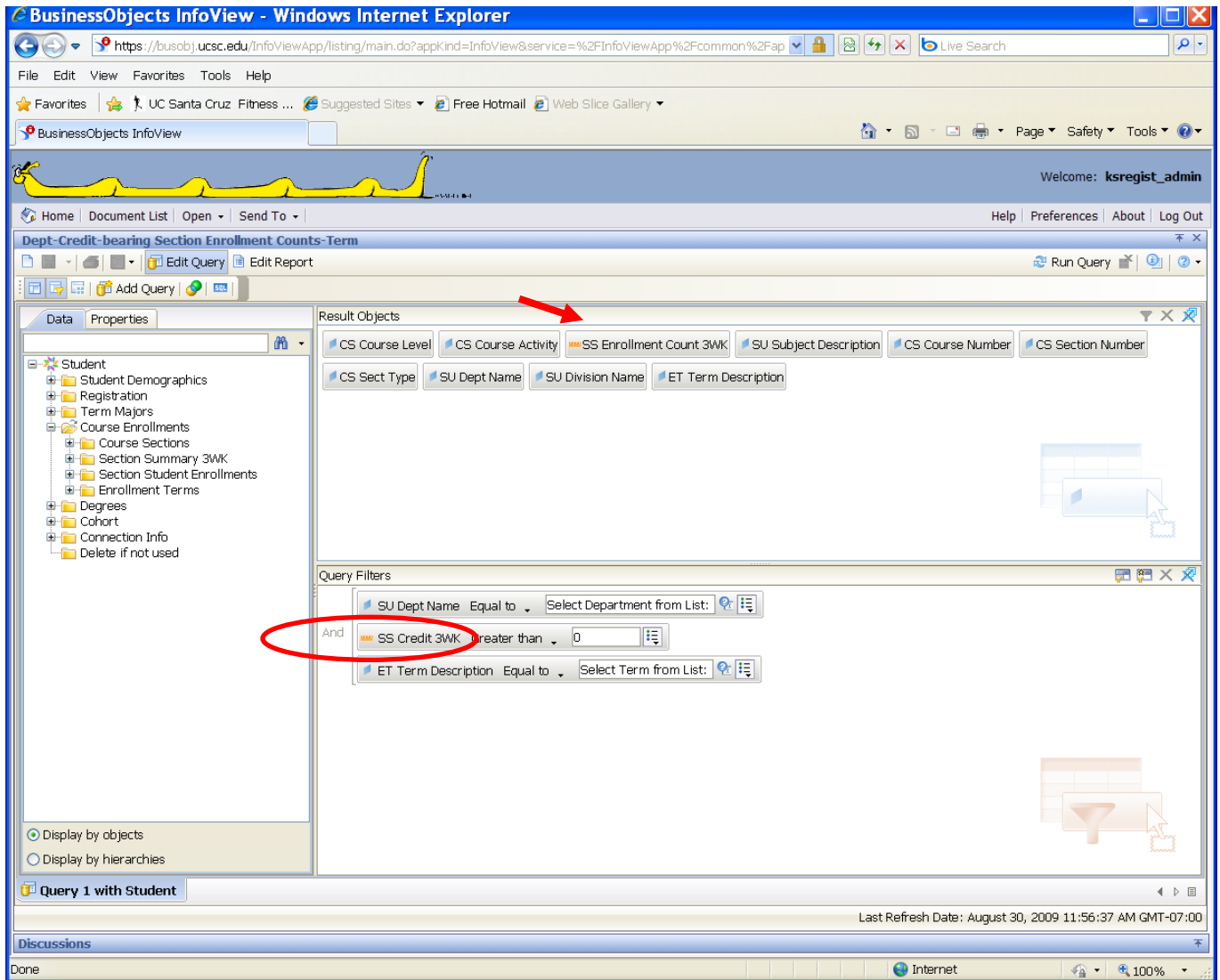
Select or type the values you want to return to reports for each prompt displayed here.

Run Query Cancel

**Activity #3:** Review Dept-Credit-bearing Section Enrollment Counts-Term (from Statistical set)

Observations:

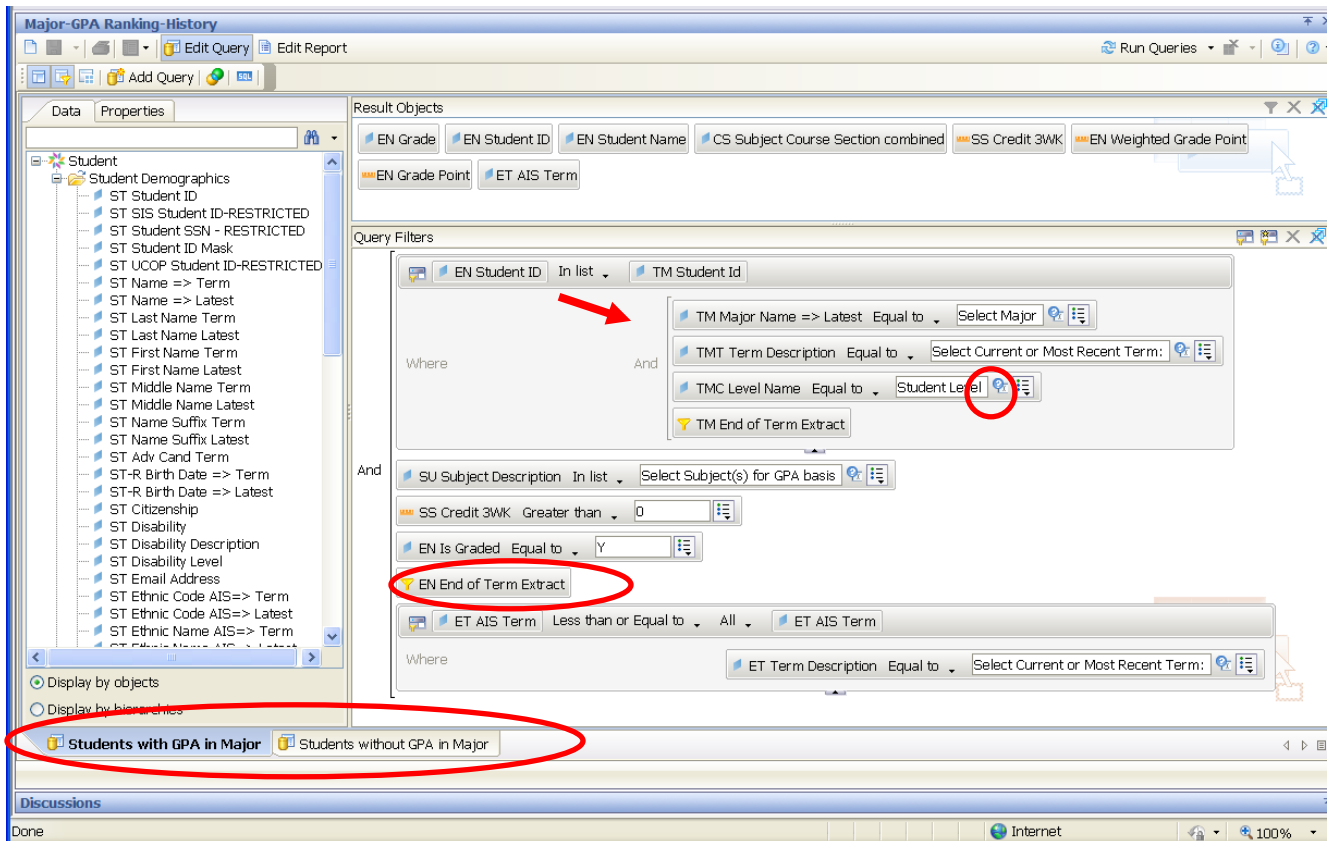
- Answers: “What was the enrollment count in credit-bearing courses at 3WK of a term?”
- The use of “SS” statistical summary object that (when used) automatically restrict data to 3WK



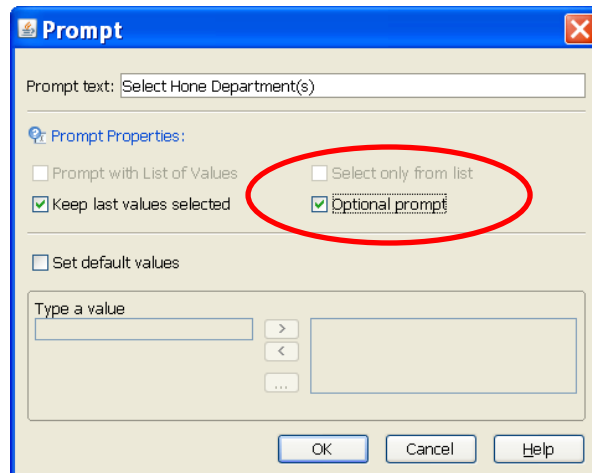
**Activity #4:** Review Major-GPA Ranking-History (from Details set)

Observations:

- Answers: “How are Anthropology majors ranked across Anthropology courses?”
- The use of pre-defined condition, “optional prompts” and subquery for determining “majors in courses”
- The use of multiple queries to display both major information and course information



When the “?” button is clicked, the Prompt properties box appears. You can set a prompt to be Optional.



**Activity #5:** You pick any report you're interested in and we'll explore it together.

### **Exploring the Outer Limits**

*Additional universes that may be of interest*

- Instruction – Analytic/summarized Instructional Activity information attributed according each instructor's rank (job title) and instructor role in the course (primary, secondary, or supervisory).
- GSS/Graduate Student (financial) Support – information about payments made to graduate students on a quarterly or term basis back to July 1, 1996.