Course Sequencing Using Pivot Tables

PREPARED BY CHARLA OROZCO

OFFICES OF ASSESSMENT & APR

Introductions

Charla Orozco, Institutional Researcher

Layout of Today's Discussion

What is "Course Sequencing?"

Where do we get the data?

How do we do it?

Future Improvements

Questions

What is "Course Sequencing?"

Tracking a student's achievement from one course to the next

◦ Hoping to determine if a certain level of achievement in one course can impact the student's achievement level in the next

◦ For example, for students who earn C's in a pre-requisite course, are they more likely to pass or fail in the subsequent courses?

94%

of students **who earned an A** in Math 121 **passed Math 123** with an A, B, or C

70%

of students **who earned a C** in Math 121 **earned a C or D** in Math 123

Where do we get the data?

MyReports.unm.edu

- ◦ If you don't already have access, you will need to request it through BAR.unm.edu
- ◦ You will request access for the "[College/School/Branch] MyReports User" role, where [College/School/Branch] represents your specific College, School, or Branch
- ◦ Before you can submit the request, you will have to complete some training on Learning Central
- ◦ More details on how to submit a BAR request can be found here: https://unm.custhelp.com/app/answers/detail/a_id/1586/~/how-do-i-complete-a-banner-authorization-request-%28bar%29%3F

Where do we get the data? – con't
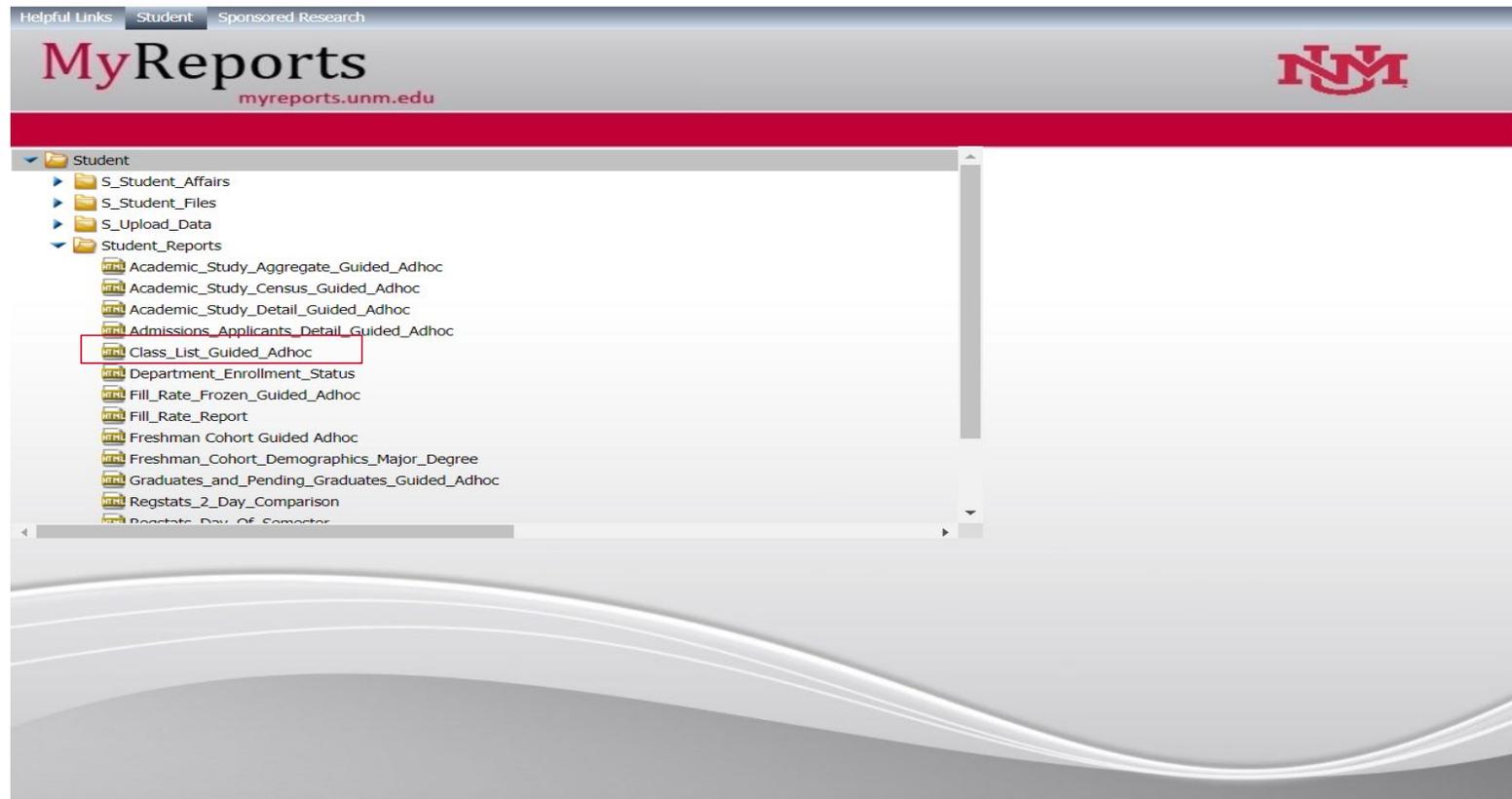
Where do we get the data? – con't

Within MyReports Class List Guided Adhoc:

1. Select the Academic Period
2. Select the Campus (or ALL)
3. Select the Subject
4. Select the Course(s)
   - To select more than one course, hold the CTRL button
5. Select the Course Sort Information (most simply, **Academic Period** and **Course Number** – but you could do more)
6. Select the Student Detail Information (most simply, **Student ID**, **Final Grade,** and **Registration Status** – but you could do more)
7. Make sure you have **Excel** selected
8. Click **Run Report**

Note: You **will** have to Run Reports for EACH ACADEMIC PERIOD IN QUESTION

Where do we get the data? – con't

MyReports will download into an excel file – repeat these steps until you have excel files for all the academic periods you'd like to study!

You'll take the information from all those files and copy it into one "master" excel file.

Now, we're ready to get started.
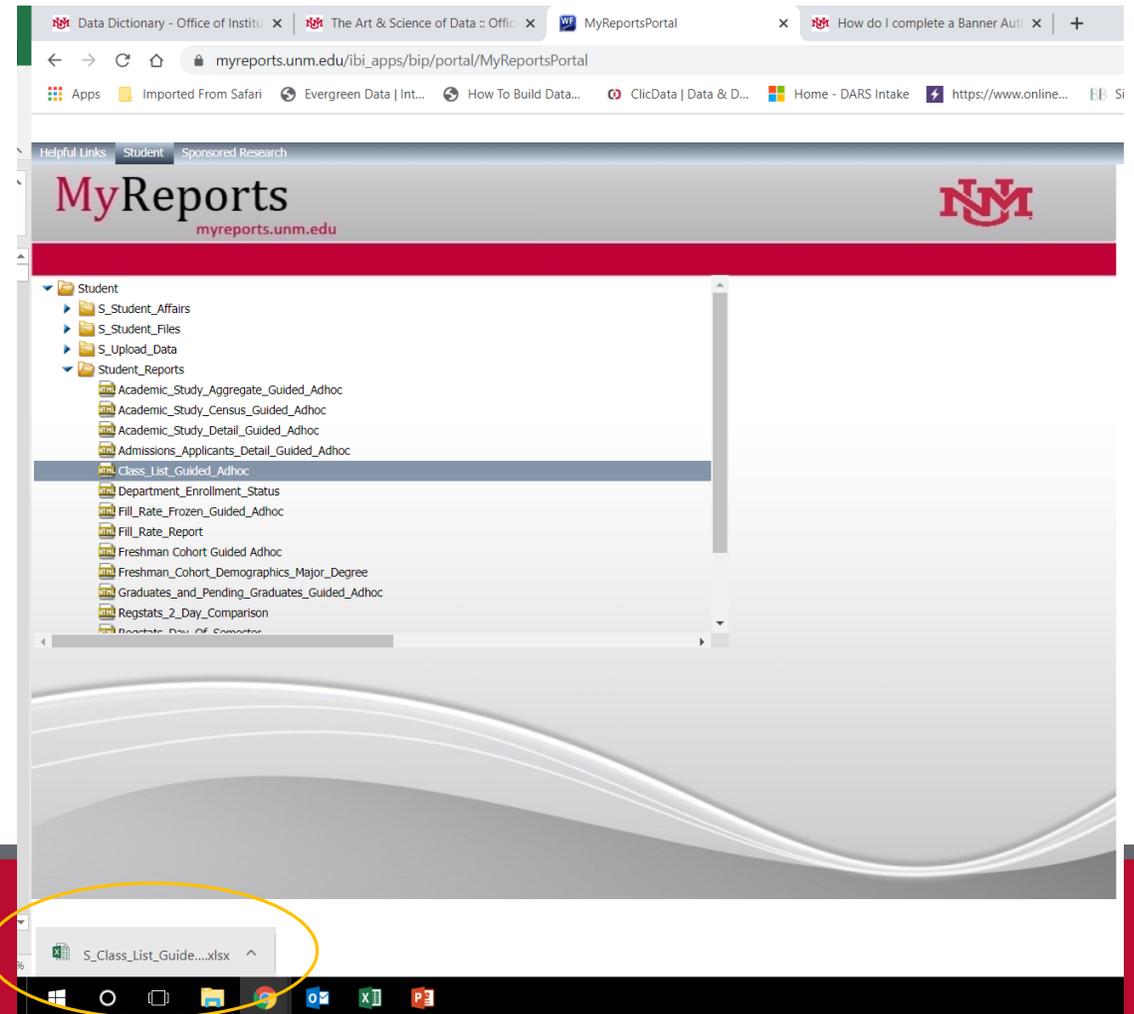
How do we do it?

Using Excel Pivot Tables and some count functions

Step 1: Create your "master" excel file – name your first sheet "Raw Data"

Step 2: Copy your raw data into a new sheet – this is where we start making edits

Step 3: Rename the new sheet "Number Grades" – add a column between Final Grade and Registration Status
- Use the formula provided in the example to change all letter grades to numbers

Step 4: Insert a Pivot Table – accept the default suggestions

Step 5: In your Pivot Table sheet, drag Student ID to ROWS, Course Number to COLUMNS, and Number Grade to VALUES. Click on "Sum of Number Grade", "Value Field Settings", then "Max" and "Ok"

How do we do it? – con't

Step 6: Copy your results and paste them into a new sheet   – IMPORTANT: Paste as values!

Step 7: Use the formulas in the example to determine which rows to keep/delete based on which students have taken more than one of the courses under review

Step 8: Copy all information, paste into a new sheet called "Students w. 1+ classes"
◦ Within this sheet, you can sort the rows by the Keep/Delete columns and delete any rows that say delete

Step 9: Copy this information again into a new sheet called "Grades as Letters"
◦ Within this sheet, you can "find and replace" all your grades as letters to simplify analysis

Step 10: Finally, create one final sheet called "Summary Numbers"
◦ Use the formulas in the example to count how many of each grade was earned in each course and how students performed as they progressed.

Future Improvements

Could run this as a code in R, STATA, SPSS, etc.

Should do this with more than 3 years of data

Could add in ethnicity, gender, among other demographic characteristics

Other ideas?

Questions?

Thank you!