EDUCATION TECHNOLOGY SERVICES

PowerSchool

Fun with GPA

GPA Calculation Methods

GPA can be calculated using a variety of the basic simple or weighted calculation. GPA in PowerSchool can be calculated using a variety of methods at one time. Using multiple methods or variances of a particular method will allow comparison in GPA within a particular student or group of students.

Simple verses Weighted

Simple GPA

History	1 credit	A	4
Biology	1 credit	B	3
Phy Ed .	5 credit	B	3
Auto Mech	2 credit	A	4

Total   14/4 = **3.5**

Weighted GPA   Potential*points

History	1 credit	A	1*4=	4
Biology	1 credit	B	1*3=	3
Phy Ed .	5 credit	B	.5*3=	1.5
Auto Mech	2 credit	A	2*4=	8

Total   16.5/4.5 = **3.667**

Typical GPA Calculation Methods

Weighted GPA
        round((gpa_sum(gpa_points()*gpa_potentialcredit()/sum(gpa_potentialcredit())),3)

Weighted Percentage GPA
        round((gpa_sum(gpa_percent()*gpa_potentialcredit())/sum(gpa_potentialcredit())),3)

Simple GPA
        round((sum(gpa_gpapoints()))/gpa_count()),3)

Simple Percentage GPA
        round((sum(gpa_percent())/gpa_count()),3)

Additional GPA Methods

GPA Count Weighted
    round((gpa_sum(gpa_gpapoints()*gpa_potentialcredit())),3)

GPA Count
    sum(gpa_gpapoints())

Number of B grades
   Countof(B,gpa_grade())+countof(B+,gpa_grade())+countof(B-,gpa_grade())

GPA Method Using Query Options

GPAs used for Honor Roll or Class Rank, any parameter needed must be included in the GPA Calculation Method query options.

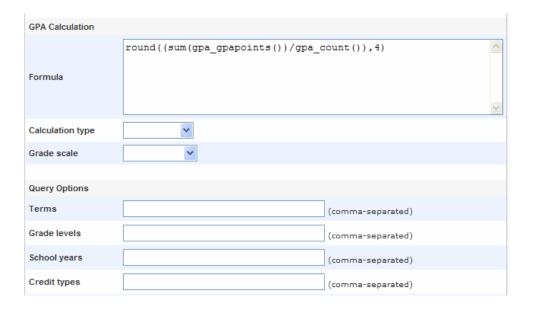| Query Options		
Terms	S1,S2	(comma-separated)
Grade levels	9,10,11,12	(comma-separated)
School years		(comma-separated)
Credit types		(comma-separated)

Query Options

Query options that are defined in the GPA Calculation Method will override any parameters set in a GPA DAT formula. When one calculation method will work with different query options then leave the query options blank in the gpa formula and set the parameters in the GPA DAT formula.

> For example: ~(*gpa method="plain weighted" term="S1,S2" gpa year="2004,2005,2006" credittype="m")

GPA Calculation

Formula
```
round((sum(gpa_gpapoints())/gpa_count()),4)
```

Calculation type

Grade scale

Query Options

Terms		(comma-separated)
Grade levels		(comma-separated)
School years		(comma-separated)
Credit types		(comma-separated)

GPA Method Code Options

The GPA DAT differs from most other formulas or codes in that the parameters are separated by spaces, not semicolons. The values passed to the parameters are separated from the parameter by an equal sign, and encapsulated in quotes.

- By Method
- By Term
- By Grade
- By Year
- By Credit Type

Method Code Options

The method parameter uses the name of methods as defined at the District under GPA Settings. The value of the parameter must match an exisiting method name exactly. The code will pull the GPA based on the method. If omitted, the "weighted" method is used.

^(*gpa method="weighted")

^(*gpa method="simple")

Term Code Options

The term parameter can be one or more term abbreviations. Values passed to this parameter must exactly match those of store codes or final grade names. The GPA will be based on the listed term or terms. If omitted, it will search all available terms. If the term parameter is used without also using the year parameter, only grades from the current year will be used.

^(*gpa term="S1")

^(*gpa method="simple" term="S1,S2")

Grade Code Options

The GPA will be based on the listed grade level. If omitted, it will search the historical grade range that is set for that particular school.

^(*gpa grade="11")

^(*gpa method="simple" term="S1,S2" grade="11")

Year Code Options

The GPA will be based on the listed year or years. Use only the first year in a school term that spans multiple year. If omitted, it will search all available years for that particular school.

^(*gpa year="2006")

^(*gpa method="simple" term="S1,S2" gpa year="2005,2006")

Credit Type Code Options

The GPA will be based on the listed credit type or types. If omitted, it will search all credit types.

^(*gpa method="simple" term="S1,S2" grade="11")

^(*gpa method="simple" term="S1,S2" grade="11" credittype="eng")

Where credit type is located

Located in Courses and Historical Grades

Common Credit types
Eng	Lang
SS	Bus
Sc	Ele
Math	HPE

How to Add Credit Types
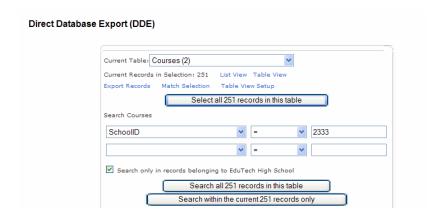
Add Credit Types within the Course

1. From the Start Page
2. Under Setup click on School
3. Scroll down and click on Courses
4. Click on each course and add credit type and submit

View Credit Types of Courses

1. From the Start Page
2. Under Setup click on System
3. Click on Direct Database Export
4. Current Table, select Schools
5. Select all records within this table.
6. Click on Table View and find the school number for the high school.
7. Click on Direct Database Export or click on the back arrow.
8. Change the current table to Courses

Direct Database Export (DDE)

Current Table: Courses (2)

Current Records in Selection: 251   List View   Table View
Export Records   Match Selection   Table View Setup

Select all 251 records in this table

Search Courses

SchoolID   =   2333

☑ Search only in records belonging to EduTech High School

Search all 251 records in this table

Search within the current 251 records only

9.   In the Search Courses drop down select SchoolID
10. Leave the = sign and enter in your school number from the Schools table.
11. Check the box to Search only in records belonging to your school.
12. Search all records in this table.
13. Click on Export Records.
14. Export out the following:
     Course_Name
     Course_Number
     CreditType
     Credit_Hours
     ExcludeFromClassRank
     ExcludeFromGPA
     ExcludeFromHonorRoll
     SchoolID
15. Open in Excel.
16. Sort by Credit Type.

View Credit Types of Stored (Historical) Grades

1. From the Start Page
2. Under Setup click on System
3. Click on Direct Database Export
4. Current Table, select Stored Grades

5. In the Search Stored Grades drop down select Grade_level>=9
6. In the second drop down select TermID>=1300
7. Check the box to Search only in records belonging to your school.
8. Search all records in this table.
9. Click on Export Records.
10. Export out the following:
    Course_Number
    Course_Name
    Credit_Type
    StudentID
    [students]lastfirst
11. Open in Excel.
12. Sort by Credit Type.

If credit type is not assigned to the stored grades, the modification of credit types will need to be done in direct database access. Depending on how courses are numbered or named will determine how to search for the courses in dda and modify the credit type.
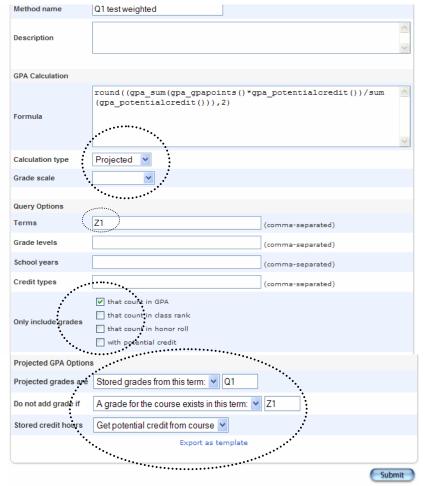
**A reporting engine report called Course Information will display the course number and name, credits, whether or not the course is included or excluded from GPA, Class Rank, and Honor Roll, and which grading scale is assigned to the course. This report will not display credit types.

NEW Weighted GPA Calculation Method

Usually when storing quarterly grades using the weighted method for gpa (honor roll), credit needed to be awarded in order for the potential credit to be tied to the stored grade. A new method of gpa calculation was found. This new method allows schools to no longer need to store credit while storing quarterly grades if full potential credit is used when calculating quarterly(honor roll) gpa.

New GPA Method

Note: Calculation type is **Projected**
Terms is **Z1** (be sure that your server doesn't actually have a Z1 term
Enter in any appropriate grade levels, school years or credit types if necessary.
In the Only Include Grades: **Do not** check the box that says to only include grades with potential credit. You may select any of the first 3 checkboxes if you want to only include certain grades.
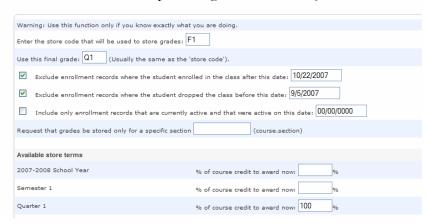The Projected GPA Options need to be set as above or the method will not calculate correctly.

Storing Using Another Term

To store a final grade with a different store code, first store the grade with the same store code as the final grade. A school may want to do this to calculate cum gpa for seniors at the end of Q3 or for quarter or trimester classes that need a final grade to display on the transcript.

1. Enter in the store code that will be used. This will be different than the final grade code.
2. Enter dates for grades that are being stored.
3. Award correct percentage of credit to available store terms.
    a. Leaving % of course credit to award now blank will not store anything for the store term.
        i. For example if storing a quarter 1 grade as a final grade the only store term that would have a percentage in would be Quarter 1.
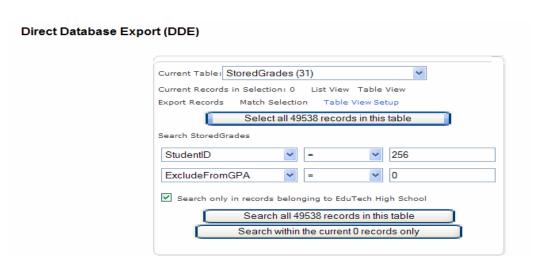

Quarter 3 could use a store code of C1. Then in the Calculation Methods a new method would need to be made called Senior Rank to include S1,S2,C1 in the term area.

Using DDE to Verify or Troubleshoot GPA

1. Select the student
2. Click on Teacher Comments
   a. At the bottom of the screen is the student id number – write this down
3. Go back to the Start Page
   a. Click on System
   b. Direct Database Export
4. Current Table select Stored Grades
5. Search StoredGrades Drop down
   a. Select Studentid = (studentid number written down)
   b. Exclude from GPA = 0

Direct Database Export (DDE)

Current Table: StoredGrades (31)

Current Records in Selection: 0   List View   Table View

Export Records   Match Selection   Table View Setup

Select all 49538 records in this table

Search StoredGrades

StudentID   =   256

ExcludeFromGPA   =   0

☑ Search only in records belonging to EduTech High School

Search all 49538 records in this table

Search within the current 0 records only

6. Check the box to Search only in Records belonging to this school
7. Click on Search all records in this table
8. Select from the Search StoredGrades drop down
   a. Grade_level>=9
9. Search within the current records
10. Click on Export Records
11. Export out the following
    a. Course_Name
    b. EarnedCrHrs
    c. GPA_Points
    d. Grade
    e. Percent
    f. PotentialCrHrs
    g. StoreCode
12. Save to Desktop
13. Open up Excel
    a. Click on File>Open
14. Click on Files of Types in the dialog window
15. From the drop down select All Files

16. Select the file from the desktop
17. Click Next, Next and Finish
18. Sort by store code
19. Remove the stored grades that are not needed

To Calculate Weighted GPA

1. In cell H2 type in the following formula
   a. =c2*f2 (this is gpa points*potential credit)
2. Copy down for the remaining rows of data.
3. Label column H
   a. GPA Point Potential
4. Click in column H, one cell below the last data
   a. Click on the Auto sum icon, press Enter
5. Click in column F, one cell below the last data
   a. Click on the Auto sum icon, press Enter
6. Calculate the cum GPA
   a. Click in a cell and enter
      i. = and then click on the sum of column H divide(/) by the sum of column F.

To Calculate Simple GPA
1. Click in column C, one cell below the last data
2. Click on the Auto sum icon, press Enter
3. Calculate the cum GPA
4. Click in a cell and enter
5. = and then click on the sum of column C divide(/) by the count of rows in the excel spreadsheet minus 1.