California State/University of California GPA by Roger Sprik, Valley Christian Schools, Cerritos, CA

The University of California system calculates a GPA based on their own criteria. We attempt to calculate it for our students as a courtesy for them to know what to expect. Only courses approved by UC count and only from grades 10-12. They also use a 4,3,2,1 grade point scale. All A's (A+,A, A-) are 4, all B's are 3, etc. They do award honors added value (1 additional grade point for C- or higher), but they cap the number of semesters allowed to earn added value to no more than 8 semesters overall and no more than 4 from the 10th grade.

Assumptions:
We use a traditional grade scale and grade point system where an A is 4.0, an A- is 3.67, a B+ is 3.33, etc. We are on semesters, with each semester worth 0.5 credits. We do enter transfer grades from other schools that have different credit values, therefore our formula must be "weighted" by potential credit, we cannot rely on simply averaging. At VCHS we apply a credit type of UCA or UCH to any course approved by UC. That allows us to calculate the UC GPA with the following settings:

Calculation Type: Cumulative
Grade Levels: 10,11,12
Credit types: UCA,UCH
Only include grades: That count in GPA, with potential credit

GPA Calculation: (the formula is expanded and commented below). IMPORTANT: The amount of credit you award affects the formula. Read carefully.

For when 1 year of coursework = 1 credit (evaluate for 2 honors added value credits in 10th and 4 honors added value credits overall)

```
round((gpa_sum(round(gpa_gpapoints(),0)*gpa_potentialcredit())+if((if(gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit())<2,gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit()),2)+gpa_sum(if(gpa_gradelevel()>10,gpa_addedvalue(),0)*gpa_potentialcredit()))<4,(if(gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit())<2,gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit()),2)+gpa_sum(if(gpa_gradelevel()>10,gpa_addedvalue(),0)*gpa_potentialcredit())),4))/sum(gpa_potentialcredit()),4)
```

For when 1 year of coursework = 10 credits (evaluate for 20 honors added value credits in 10th and 40 honors added value credits overall)

```
round((gpa_sum(round(gpa_gpapoints(),0)*gpa_potentialcredit())+if((if(gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit())<20,gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit()),20)+gpa_sum(if(gpa_gradelevel()>10,gpa_addedvalue(),0)*gpa_potentialcredit()))<40,(if(gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit())<20,gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)*gpa_potentialcredit()),20)+gpa_sum(if(gpa_gradelevel()>10,gpa_addedvalue(),0)*gpa_potentialcredit())),40))/sum(gpa_potentialcredit()),4)
```

GPA CALCULATION FORMULA WITH COMMENTS

Round full result to 4 decimals and begin the "numerator" portion of our formula.	`round(` `(`

Round the Grade Points to 0 decimals to make all A's a 4, all B's a 3, etc. (ie. A- 3.67 becomes a 4). Weight the points by the credit of the course. We are going to proceed to add any weighted added value.	`gpa_sum(`
	`round(gpa_gpapoints(),0)*gpa_potentialcredit()`
	`) +`

This "IF" ensures the overall weighted added value is no greater than 4 (8 semesters) (or 40)	`if(` `(`

This section evaluates the 10th grade honors added value. CSU says no more than 4 semesters from 10th grade may earn honors added value. When we weight by course credit we need to check for no more than 2. (or more than 20 if one of your years is 10 credits)
 	
If the weighted added value is less than 2 (or 20), then use that value, else make it a "2" (or 20).
	`if(`
	`gpa_sum(`
	`if(`
	`gpa_gradelevel()=10,gpa_addedvalue(),0`
	`)*`
	`gpa_potentialcredit()`
	`)<2,`
	`gpa_sum(`
	`if(`
	`gpa_gradelevel()=10,gpa_addedvalue(),0`
	`)*`
	`gpa_potentialcredit()`
	`),2`
	`)+`

This section sums the added value from CSU classes in 11th and 12th grade and weights them by course credit.	gpa_sum(if(gpa_gradelevel()>10,gpa_addedvalue(),0)* gpa_potentialcredit())
The middle part of the first "IF". If the overall added value is less than 4 (8 semesters) (or 40), let's proceed to calculate the added value with the same formula we used above.	)<4, (
This is a repeat of the formula above, we first had to calculate what the total CSU honors added value was, check to see if it was less than 4 (or 40). If so, we repeat the formula here to actually produce it. First calculate the 10th grade weighted added value and cap it at 2 (4 semesters) (or 20)… …. then add the weighted results of the 11th and 12th grade added values.	if(gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)* gpa_potentialcredit())<2, gpa_sum(if(gpa_gradelevel()=10,gpa_addedvalue(),0)* gpa_potentialcredit()),2)+ gpa_sum(if(gpa_gradelevel()>10,gpa_addedvalue(),0)* gpa_potentialcredit()))
Concludes the first "IF" (the "else" part). If the overall added value is 4 or greater (or 40), we simply output a "4" (8 semesters) (or 40), the max added value allowed.	,4)
This closure of the "numerator" portion of the formula. We will divide the total of the weighted grade points plus weighted added value by….	)/
…. the sum of the potential credit.	sum(gpa potentialcredit())
This finishes the "Round" function, to 4 decimal places.	,4)