

**From:** Marshall Whittlesey <[mwhittle@csusm.edu](mailto:mwhittle@csusm.edu)>  
**Date:** Wednesday, February 22, 2017 at 2:53 PM  
**To:** jjameson <[jjameson@csusm.edu](mailto:jjameson@csusm.edu)>  
**Subject:** FW: PHYS 357

Here it is again....

**From:** Marshall Whittlesey  
**Sent:** Wednesday, January 25, 2017 4:21 PM  
**To:** Julie Jameson  
**Subject:** FW: PHYS 357

Julie,

Here's the last communication I had about PHYS 357. Because the course is principally for Speech/Language Pathology students, and is proposed for BB so those students to get double counting toward GE for a science course in the major, I did suggest to Stephen at the holiday party that we could explore extension of the 'deal' to SLP that science majors can take any upper division science course for BB provided it is outside of the major. But my guess is that it's easier for him to take a little time to discuss trigonometry.

Marshall

**From:** Marshall Whittlesey  
**Sent:** Monday, November 28, 2016 7:47 PM  
**To:** Stephen Tsui  
**Subject:** RE: PHYS 357

Stephen,

Sorry for the delay – I'm just getting caught up on GEC communications....

I think you can assume the students are familiar with circles and angles. But that's all – sines and cosines and logarithms are things not part of ELM. These are things you would have to explain as though the student had never seen them before.

Sorry. It's a problem. But given the audience you're likely to have, I think it's quite likely that if you use these ideas much at all, you're going to have problems with the class right away.

You can read all about the content of ELM here:

[http://www.ets.org/s/csu/pdf/csu\\_information\\_bulletin.pdf](http://www.ets.org/s/csu/pdf/csu_information_bulletin.pdf)

Marshall

**From:** Stephen Tsui  
**Sent:** Monday, November 07, 2016 10:29 PM  
**To:** Marshall Whittlesey  
**Subject:** RE: PHYS 357

Hi Marhsall,

Thank you for getting back to me. I believe that I can address all of these concerns, but I would appreciate more clarification on the high school math prerequisites.

Are the angles of the unit circle, and sines and cosines as they relate to the graph of a wave, content that falls under ELM geometry? The only other non-algebraic concept is that of the log, since we do discuss decibels.

Thanks,  
Stephen

**From:** Marshall Whittlesey  
**Sent:** Monday, November 7, 2016 12:37 AM  
**To:** Stephen Tsui <[stsui@csusm.edu](mailto:stsui@csusm.edu)>  
**Subject:** PHYS 357

Stephen,

I'm writing on behalf of GEC regarding your application for BB certification for PHYS 357, which the committee considered recently.

The committee has some issues that it felt you needed to address. First, the form notes that "upper division general education students may have fulfilled their lower division area B requirements in broad, interdisciplinary courses or in a different discipline than the discipline in which this course is offered." In question 5, you say that student must use high school mathematics and trigonometry skills to...." Although many students take trigonometry in high schools, many do not, and trigonometry is not an entrance requirement to CSUSM. This would have to be one of the "basic assumptions, principles and methods of the discipline" which you would have to discuss in the course before using it. Are there other assumptions that the course would make about a student's math skills that might not be CSUSM entrance requirements? You could assume the student knows anything required for ELM (Entry level mathematics – essentially algebra I and geometry) and you could assume the student had taken lower division GE area B courses, but not any specific course prerequisite. So we ask that you consider the course carefully, decide whether this course could be done by any student at CSUSM, and give us a more detailed discussion in question 4. Are the sound/energy principles/wave phenomena things that can be explained to the typical student here in the terms which you propose to do so?

In question 6, could you explain the nonlinear source-filter phenomena in more detail? You cite this as an example of a matter that is still subject to discussion and research – please explain more fully.

The syllabus only has five weeks in it. Could you revise it to reflect the delivery of a course over a 15 week term?

Please note that CSUSM has an extensive syllabus policy, and make sure that your syllabus follows it:

[http://www.csusm.edu/policies/active/documents/Course\\_Syllabi.html](http://www.csusm.edu/policies/active/documents/Course_Syllabi.html)

Note that you have to include a list of GE program student learning outcomes covered in the course. You should pick those outcomes from this list:

<http://www.csusm.edu/ge/GEPSLOs/index.html>

Thanks.

Marshall