**“TUNING” PHYSICS**

What it is. How it might help strengthen our degrees. What it asks of us.

*Focus on what students learn more than on what is taught*
  * Focus departmental discussions on learning rather than on teaching
  * Focus interactions with students on what they are learning and why
  * Focus assessment on the learning outcomes
  * Report to accreditors on what students have learned and how it has been assessed

*Furthering a Cultural Change that has been initiated by accreditors and our institutions*

**What Is “Tuning”?**

*Multi-institution process (state-wide in our case)*
* Across educational sectors (universities to community colleges)*
* Faculty and Student representatives jointly define what a student must*
  * Know
  * Understand
  * Be able to do
  to qualify for a degree in physics at associate, bachelor, and masters levels.*

*Common reference points for physics*
  * Degree-level Learning Outcomes*

*Institutional autonomy in*
  * Curriculum
  * Pedagogy
  * Assessment

**Same Key, Not Unison**
*Faculty consult other stakeholders, while faculty define the discipline
  * Students
  * Alumni
  * Employers
  * Policy makers
  * Administrators, Advisors, Librarians
  * K-12 representatives

*Tuning Consultations

*Focus on and improve student learning
  * Gain insight through consultations with employers & others
  * Strengthen program quality, efficiency, & coherence
  * Assure quality through assessment of LOs
  * Provide accountability
  * Bring transparency to students, employers, . . .

*Goals

*Using degree-level LOs developed by the state team
  * Review our curriculum to correlate LOs with our courses and levels
    * E.g. Do we prepare students to move into the upper division curriculum or transfer by the end of two years?
    * Which courses address which LOs? Do we adequately address all of them? Could we do it more efficiently?
    * Etc.

*What Does Tuning Ask of us?

*Using degree-level LOs developed by the state team
  * Review our assessment practices to confirm student accomplishment of LOs as degree requirements
    * E.g. Can we certify what students know, understand, and are able to do when they receive a bachelor degree from our program?
    * Map LOs to assessments. Do we adequately assess all of them? Could we do it more efficiently?
    * Etc.

*What Does Tuning Ask of us?
*Using degree-level LOs developed by the state team*

* Make expectations embodied in LOs explicit for students
  * E.g. Do we share and discuss the LOs with our students right at the beginning of the major curriculum so they can see what is expected and why?

* Make expectations embodied in LOs clear to employers
  * Let employers know what they can expect of our graduates

**What Does Tuning Ask of us?**