EFFECTIVE TEACHING

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What is my teaching load?
- 12 credit hours (4 classes)
  - A large section is 6 credit hours
  - No TA unless there is a large section
- Typically larger than in other institution

What if I work extra? (more pay, semesters off, etc.)
- No reward system
  - Planning one as we speak
- No semester off
CLASSES

Courses I teach
- Computer Architecture
- Capstone in Computer Engineering
  - 13 groups
  - 4 interdisciplinary
  - Team teaching
- Manage Interdisciplinary Cycles - Humanities
  - Inter college collaboration

Do I get a choice?
- Yes
  - I have to give 5 options to my chairman, he will select from those
- No
  - If needed by dept, they will change courses
AUDIENCE

- Audience
  - Computer and Electrical Engineering Student
    - 4th and 5th year in 5 year program
  - Highest scores in College Board exam
    - Puerto Rico

- Do they want to be there?
  - Computer Architecture
    - Yes
  - Capstone
    - No
What curriculum development have you done?
- Currently directing Computer Engineering Curriculum revision.

How did that go?
- Hard / currently working on it

What did I learn?
- Lack of knowledge I had on education
- CAP Model from Pellegrino’s work [1] (Content/Curriculum, Assessment, Pedagogy/Delivery)
  - Outcome-Based education
  - Constructivist approach
- ACM/IEEE computing curricula
- Creativity
How to balance (and connect) research and teaching?

- Balance? Find synergy.
- Prioritize
  - Eisenhower Method
    - Is it important? Is it urgent?
      - Important and urgent - do
      - Important and not urgent - plan
      - Urgent but not important - Delegate
      - Not urgent, not important - Drop
**BALANCE**

- Boise method [2]: Nihil Nimus (nothing in excess)
  - Writing
    - Successful young professors: Avg: 1.8 papers/year
    - Unsuccessful young professors: Avg: 0.2 papers/year
  - Difference?
    - Moderation
      - Write in short periods instead of big chunks. Write and write (when in the mood and when not in the mood)
    - Balance work and fun
    - Save time for people and relationships

- Becoming pumpkin at 5:00pm
What professional development have you had directly connected with teaching?

- **Capstone Trainings:**
  - High Performance Teams
  - Creativity
  - Project Management
  - Time Management
  - Intellectual Property
  - Effective Meetings
  - The Four Disciplines of Execution
  - Entrepreneurship- Babson
  - Crucial Conversations
- **General Education - AACU**
- **ARG - Affinity Research Group**
TEACHING TIPS

Crucial “Teaching Tips” have you found valuable?

- Do not be afraid to try new things. - F. Vega
- Do not be static. You cannot teach a course the same way every semester. - G. Love
  - Listen to the students.
- Keep learning.
  - Stages of competence - E. Villa
  - Krugger and Dunning Effect - R. Veguilla
  - Inverted classroom - C. Papadopolous
- Critical Thinking skills is a fundamental learning outcome. - AACU
  - High Impact Practices - LEAP project
    - Writing-Intensive experiences
    - Undergrad Research
    - Collaborative Experiences
    - Capstone
REFERENCES
