

# Physics at ASU

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# Overview

- 9 faculty (7.75 FTE) possess the terminal degree
- BS Physics program with concentrations in physics and applied physics/pre-engineering
- Over 160 declared majors
- 6-year average bachelor production rate is 10
- 50% of graduates attend graduate school, 50% gain employment

# Effectiveness Plan

- Mission – to promote inquiry, literacy, and service within the physical sciences.

<b>Goal</b>	<b>Objective</b>	<b>Assessment</b>
Pursue excellence student learning	Graduates will be prepared for professional post-baccalaureate education programs.	MFT and GRE-Physics data as reported by Institutional Effectiveness Report.
Conduct undergraduate research with students	Faculty will provide research opportunities for undergraduate students.	4X91 data and faculty research data reported in annual faculty evaluation.
Serve the university, local, and scientific communities	Faculty and students will support local, regional, and national professional organizations.	Faculty membership and participation (esp. leadership roles) in professional organizations reported in annual faculty evaluation.

Plan drives departmental hiring, merit, promotion, and tenure decisions.

# Policy

- Governance and Organization document defines committees and their function.
- Function is always linked to University Policy.
- Tenure and curriculum are the most important!
- There must be a policy to remove faculty resistant to change.

# Viability

- Provide graduates with a quality degree which offers future opportunities.
- Operate in the black with reasonable losses to the University.
- Gain and retain respect of the academic community.

# Achieving Viability

- Structure a flexible degree which enables students to enter many fields of graduate study or employment.
- Teach quality service courses in an efficient manner to earn funding which will offset losses in major courses.
- Build a reputation of quality for your program on campus.

# When it Comes to Students

- Provide ample information on opportunities such as REU's, internships, employment, and graduate programs.
- Build a strong student organization (SPS)
- Actively recruit on and off campus
- Articulation agreements
- Celebrate the success of your graduates

# Our Degree Program

- 120 hour BS degree
- Aligned with AAPT guidelines
- Physics – 8 hours introductory sequence, choose 22 h concentration in physics or applied physics/pre-engineering, choose remaining 12 hours from advanced physics lab courses
- Any minor possible



# Service

- University Planetarium/GIC
- Physics-on-the-Road
- Public school Science Nights
- Physics Teacher Quality
- High School Physics Program

# Best Practices

- Come from national professional organizations
- Documented through exit surveys
- Results communicated to faculty, students, and administration
- Should drive curriculum and resources

# Current Challenges

- TTU System strategic priorities to “increase enrollment and promote student success” and to “expand and enhance research and creative scholarship”
- Texas Strategic State Workforce Investment Plan ties energy production degree plans to budgets.

# Solutions

- Will involve growing enrollment and finding ways to reduce time to graduation.
- Will require a culture shift from teaching to research.
- Will include an energy production certificate, minor, MS Interdisciplinary Science, or an AA to BS program with Howard College.