

Criterion 6: Faculty Qualifications

- Curriculum taught jointly by faculty in physics (16) and engineering (CHME:10, MAE:17, ECE:20).
- 16 physics faculty (15 FTE), all with Ph.D.s in physics or related fields. 10 tenured, 4 TT, 2 non-tenured.
- Faculty credentials are verified under HLC guidelines.
- Several faculty recognized nationally (fellowships). Serve on NMSU-wide committees (faculty senate, senior searches).
- Experienced instructional lab manager with MS in Physics.
- Insufficient faculty strength: Many lower-division courses (7 in AY 18/19) taught by graduate instructors with an MS. Allowed, but not desirable. Sufficient support for all required courses.
- PFF mentoring fellowships for graduate instructors.
- **Obsolete**: Some Faculty tables from engineering.

Criterion 6: Faculty Workload

- Tenured/TT workload: Typically 3 courses/year.
- Higher workload for tenured faculty with weak research programs or without graduate students. (4-5 courses/year).
- Reductions for service (grad/undergrad program head).
- Reductions with research buy-outs, especially bridged appointments with national labs.
- Non-tenured workload: 4 courses/year (half-time).
- Most faculty present strong evidence of student learning.
- Annual performance evaluations.
- Post-tenure review, disciplinary actions are possible.
- All required courses offered regularly (once a year or more).
- Individual student advising by physics faculty each semester.
- Faculty mentor students organizations (SPS, SEPh).

Criterion 6: Professional Development & Authority

- Sabbaticals for tenured faculty after six years (one semester at full pay, or two semesters for 60% pay).
- Weekly colloquium,
- Conferences supported by research grants, A&S College, APS/AAPT/AIP, or by department for non-tenured faculty.
- Two advisory boards as resources for faculty.
- Faculty in control of curriculum and assessment (department, college, university-wide). Strong Faculty Senate with physics representatives.
- General education driven at the NM state level.
- Almost all faculty participate in ABET-related activities.
- Engineering physics committee (with ENG representatives).

Criterion 7: Classrooms and Offices

- Two large lecture halls in Physics (110 and 65 seats).
- Two small seminar rooms (24, 20 seats), suitable for active learning.
- All are smart classrooms (computer projectors, document camera).
- Individual offices for all faculty and staff with networked computers.
- Cubicles for teaching assistants with desks and computers.
- WiFi across the entire campus, including Gardiner Hall.
- Departmental office, mail room, conference room, tutoring center.
- Student lounge (microwave, coffee, refrigerator, blackboard).
- Facilities are well maintained (regular A/C repairs, upgrades to classroom IT).
- Computers upgraded regularly (departmental or engineering funds).
- **Missing: Library Services.**

Criterion 7: Laboratories, IT resources

- Four rooms for large lower-division instructional labs.
- Five rooms for specialized upper-division instructional labs.
- Some research labs available for instructional labs (XRD, nuclear).
- A few faculty members have research labs on campus, but most perform experimental research at national labs (LANL, Fermilab, Brookhaven). That's a problem for UG student involvement.
- Few opportunities for capstone projects in physics.
- Few central NMSU-wide facilities (CURRL: AFM, SEM).
- Very low start-up for faculty: Not much equipment in Las Cruces.
- Computer labs for students in physics and in engineering.
- Software: MS Office, Matlab, Mathematica, Origin, XRD, WVASE.
- ES&H training and inspections of labs.
- Budget cuts: Difficult to renew/repair equipment. Some E-fee funds.
- Overall, facilities are adequate and safe.

Criterion 8: Institutional Support

- Partnership between Engineering and Arts & Sciences.
- Interdisciplinary approach, no direct line, not always easy.
- Degrees awarded by Engineering, while A&S pays most costs.
- Engineering Physics committee: Physics (6), CHME, MAE, ECE reps.
- Very small program (35-40 majors, 5-10 graduates per year).
- No program coordinator, no course reduction for EP program head.
- Significant state budget cuts in recent years, no replacement for two lost faculty lines (resignation, retirement), no equipment funds.
- No merit raises since 2014 (faculty) and 2012 (staff), perhaps in Sept. 2018.
- Mostly flat physics operations budget (65 k\$) over 15 years.
- Administrative assistant open for over two years, started last Monday.
- No F&A return to researchers, about 10-15 k\$ to department (IT support).
- About 90k\$ earnings for scholarships, professorship, colloquium/boards.
- Very limited access for EP majors to scholarships (no dept. scholarships).
- Threat: Significant reduction in E-fee expected (15 k\$ to 3 k\$ per year).
- Sufficient support for the program (cash, teaching assistants, tutors. graders, etc).
- No Regents Professor in physics since 2009.