Basic Sciences Faculty

Mission: To generate and disseminate knowledge in Basic Sciences and contribute to regional and national scientific development, by promoting research, training of professionals who are capable of solving problems in business, and innovation in learning-teaching processes.

Vision: We are a Basic Sciences training center that offers alternatives in teaching, research and extension in the formulation and implementation of policies, programs and projects in the fields of theoretical and applied basic sciences.

General Objective: Rank the Basic Sciences Faculty as training and research center that leads the development of basic science and offers problem solving alternatives at a regional and national level.

Specific Objectives:

- Strengthen existing research groups in Basic Sciences.
- Create lines of research in strategic areas that are already defined.
- Accreditation of undergraduate and post graduate programs.
- Incorporate the use of new technologies in the teaching - learning process.
- Train teachers of the faculty in the use of new technologies.
- Link the power to the needs of the surrounding social environment.
- Establish an IT culture in Basic Sciences.

Departments: drawing, physics, mathematics.

Laboratories for academic use:

- Physics Lab I, Physics Lab II
- Physics Lab III, Materials Physics Lab
- Modern Physics Lab
- Metrology Lab
- Demonstration Lab
- Design and Prototype Construction Lab
- Laser Spectroscopy Lab
- Computer Lab (AutoCAD)
- Computer lab (computers)

Development Projects Lines:

- Biophysics and Medical Physics
- Instrumentation Physics
- Teaching of Natural Sciences
- Physical Signal Processing and Analysis

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- Theoretical and / or experimental Solid State Physics
- Gravity and Unified Theories.
- Metrology.
- Differential Equations.
- Statistics
- Algebra and Number Theory
- Analysis
- Geometry
- Logic and Computation
- Philosophy and History of Mathematics
- Optimization
- Numerical Analysis
- New Technologies for Education.
- Curriculum Reform
- New Magazines for the Faculty
- Computer Aided Drafting and / or Software Development
- Networking and Communications.
- Intellectual Production
- Quality Improvement. (Education Quality and Optimization

Fuente: http://www2.utp.edu.co/english/faculties/55/basic-sciences-faculty

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