Introduction

The Department offers a Bachelor of Science degree in Physics. The BS includes the opportunity to obtain concentrations in Applied Physics Concentration, Atmospheric Physics Concentration, Medical Physics Concentration, Pre-Med Concentration, and Secondary Education 7-12 Physics/Mathematics Certification.

Students may not apply to the Educator Preparation Program until they meet the following requirements:

1. Have a UTEP overall GPA of at least 2.75
2. Have a UTEP majors GPA of at least 2.75
3. Pass the UTEP math content qualifying exam with a score of at least 80%

Programs

Bachelor of Science

• BS in Physics (http://catalog.utep.edu/undergrad/college-of-science/physics/physics-bs/)

Minor

• Minor in Physics (http://catalog.utep.edu/undergrad/college-of-science/physics/physics-minor/)

Fast Tracks

• BS in Physics to MS in Physics (http://catalog.utep.edu/undergrad/college-of-science/physics/fast-track/bs-physics-ms-physics/)
• BS in Physics with Applied Physics Concentration to MBA (http://catalog.utep.edu/undergrad/college-of-science/physics/fast-track/bs-physics-applied-physics-conc-to-mba/)

CHAIR: Dr. Cristian Botez (http://facultyprofile.utep.edu/default.aspx?ID=cbotez/)

Professor

Tunna Baruah (http://facultyprofile.utep.edu/default.aspx?ID=tbaruah/)
Contact Information: tbaruah@utep.edu (mtcortez@utep.edu); 915-747-7529
Education: Ph D, University of Pune

Rosa Fitzgerald (http://facultyprofile.utep.edu/default.aspx?ID=rfitzgerald/)
Contact Information: rfitzgerald@utep.edu (mtcortez@utep.edu); 915-747-7530
Education: BS, Universidad Nacional de Ingeniería; MS, Adelphi University; Ph D, University of California, Riverside

Jorge Lopez (http://facultyprofile.utep.edu/default.aspx?ID=jorgelopez/)
Contact Information: jorgelopez@utep.edu (mtcortez@utep.edu); 915-747-7528
Education: BS, University of Texas at El Paso; MS, University of Texas at El Paso; Ph D, Texas A&M University
Research Interests: Nuclear physics, nuclear matter, neutron star matter, heavy ion reactions, equation of state, phase transitions, nuclear pasta, symmetry energy, neutrino oscillations, astrophysics, X ray spectroscopy of materials, XPS, Auger, UPS, photovoltaic cells, materials (I have equipment), Studies of underground radon, Medical Physics, GEANT4 studies of gamma ray sources and detectors, Social Sciences, studies of electoral data, migration, education.

Felicia Manciu (http://facultyprofile.utep.edu/default.aspx?ID=fsmanciu/)
Contact Information: fsmanciu@utep.edu (mtcortez@utep.edu); 915-747-8472
Education: BS, University of Bucharest; Ph D, The State University of New York at Buffalo

Associate Professor

Chunqiang Li (http://facultyprofile.utep.edu/default.aspx?ID=cli/)
Contact Information: cli@utep.edu (mtcortez@utep.edu); 915-747-7537
Marian Manciu

Contact Information: mmanciu@utep.edu (mtcortez@utep.edu); 915-747-7531

Education: BS, University of Bucharest; Ph D, State University of New York at Buffalo

Research Interests: Biomedical Statistics - Statistical inferences/predictions/estimations at low sample numbers (Dimensionality Reduction, Maximum-Likelihood Methods, Multivariate Statistical Analysis, Survival Analysis) Water-Mediated Macromolecular Interactions (Polar and Hydrophobic Interactions, Specific Ion Effects, Thermal Fluctuations, Polymer Brushes) Medical Imaging (Computed Tomography Image Reconstruction, Spectral Reconstruction, Monte-Carlo path/dose simulations)

Rajendra Zope

Contact Information: rzope@utep.edu (mtcortez@utep.edu); 915-747-8742

Education: Ph D, University of Poona

Research Interests: Understanding electronic structure of nanomaterials using quantum mechanical theories; development of efficient computational schemes within density functional theory; boron nanostructures; fullerenes; organic photovoltaics; clusters

Assistant Professor

Jose Bañuelos

Contact Information: jibanuelos@utep.edu (mtcortez@utep.edu); 915-747-7535

Education: BS, New Mexico State University; Ph D, New Mexico State University; Postdoc, Oak Ridge National Laboratory

Research Interests: Interested in the physicochemical properties of nanoscale fluid-solid interfaces in the areas of energy storage and conversion, natural resource management, environmental science, and nanomedicine. Interested in understanding the molecular-scale structural and dynamic properties of interfaces in nanostructured materials in order to help inform theoretical models, bring about predictive capabilities, and lead to transformative advances in the aforementioned science areas.

Ahmed El-Gendy

Contact Information: aelgendy@utep.edu (mtcortez@utep.edu); 915-747-6382

Education: Ph D, Heidelberg University

Research Interests: Nanomaterials, Magnetism, Hyperthermia for cancer treatment, contrast agent for MRI, Data storage, Permanent magnets, magnetocaloric for magnetic refrigeration.

Lin Li

Contact Information: lili5@utep.edu (mtcortez@utep.edu); 915-747-8423

Education: BA, Huazhong University of Science and Technology; Ph D, Huazhong University of Science and Technology

Research Interests: Computational Biophysics, Computational Biology, Bioinformatics, Protein interactions, Virus capsid assembly, molecular motor.

Jorge Munoz

Contact Information: jamunoz@utep.edu (mtcortez@utep.edu); 915-747-7541

Education: BS, The University of Texas at El Paso; MS, California Institute of Technology; Ph D, California Institute of Technology

Srinivasa Rao Singamaneni

Contact Information: srao@utep.edu (mtcortez@utep.edu); 915-747-5835

Education: Ph D, Indian Institute of Science; Postdoctoral Scholar, University of Leuven; National Research Council Research Associate, North Carolina State University

Research Assistant Professor

Huiyan Yang

Contact Information: hyang4@utep.edu (mtcortez@utep.edu); 915-747-7510

Education: Ph D, Princeton University