Universidad del Turabo
Master's Program in Mechanical Engineering
ALTERNATIVE ENERGY SPECIALIZATION
(30 credits)

REQUIRED COURSES
(4 courses: 12 cr.)
MEEN 501 Finite Element Analysis
MEEN 601 Advanced Mathematics for Engineers
MEEN 604 Aerodynamics 1: Incompressible Flow
MEEN 641 Sustainable Energy

ALTERNATIVE ENERGY SPECIALIZATION ELECTIVE COURSES
(Select 4 courses: 12 cr.)
MEEN 642 Grid Integration & Sustainable Systems
MEEN 643 Energy Management, Practice, Policy & Ethics
MEEN 644 Photovoltaic Energy Conversion
MEEN 645 Wind Energy
MEEN 646 Solar Refrigeration and Air Conditioning
MEEN 648 Advanced Topics in Alternative Energy
MEEN 649 Independent Study in Alternative Energy
MEEN 651 Ocean Energy
MEEN 652 Biofuels
*MEEN 611 Composite Materials
*MEEN 616 Introduction to Aeroelasticity
*MEEN 623 Multi-Scale Turbulence: Aeronautics
*MEEN 672 Mechanical Vibrations
*MEEN 673 Computational Fluid Dynamics (CFD)
*MEEN 675 MEMS and Energy Harvesting
*MEEN 676 Design Optimization
*MEEN 681 Introduction to Biomechanics
*MEEN 682 Systems Engineering
*MEEN 683 Friction, Wear and Lubrication
*MEEN 684 Advanced Tribology
(* Also available in other specialization areas)

Plan 1 (M.S. degree)
(6 cr.) MEEN 697 MS Thesis

COMMENTS:
Plan 1 is an excellent option for full-time students with a strong interest in research.

Plan 2 (M.S. degree)
(3 cr.) MEEN 694 Special Project
(3 cr.) Any course from the master's program in ME.

COMMENTS:
Plan 2 is ideal to conduct design and development in an area of particular interest.

Plan 3 (M.Eng. degree)
(6 cr.) Any two courses from the master's program in ME.

COMMENTS:
Plan 3 caters primarily to working professionals who seek highly specialized knowledge.