# Ph.D. - Technology Management Program Structure

## CORE COURSES

- Exploration in Research Methodologies (TMPD 702)
- Research Design, Analysis and Measurement (TMPD 704)
- Quantitative Methodologies (TMPD 706)
- Technology New Venture Creation (TCMG 645)
- Strategic Management of Technology & Innovation (TCMG 620)
- Comprehensive Written Exams – Both Areas 1 & 2 (TMPD 694)
- Oral Defense of Dissertation Proposal (TMPD 699)
- One semester teaching practice requirement (TMPD 698)
- Completion of one publishable refereed Journal Paper or 2 refereed Conference Papers (No Credit)
- Ph.D. Dissertation (TMPD 710) *(Minimum of 15 Credits)*

### Area 1*

- Leadership, Teams & Managing Change
- New Product Development & Commercialization
- Small Business and Entrepreneurship
- Intellectual Property Management
- Project Management
- Etc.

### Area 2*

- Biotech & Biomedical Technology, Systems & Processes**
- Environmental and Energy Technology, Systems and Processes
- Engineering Economics and Financial Engineering
- Information Analytics, Technology & Decision Support Systems **
- Manufacturing, Supply Chain and Logistics Technology, Systems and Processes **

** (Initial Technology Concentrations to be offered at program start)

### Select Elective Course Examples

- Leadership, Teams & Managing Change
- New Product Development & Commercialization
- Small Business and Entrepreneurship
- Intellectual Property Management
- Project Management
- Etc.

### Select Current & Emerging Technologies (Technology Concentrations)

- Biotech & Biomedical Technology, Systems & Processes**
- Environmental and Energy Technology, Systems and Processes
- Engineering Economics and Financial Engineering
- Information Analytics, Technology & Decision Support Systems **
- Manufacturing, Supply Chain and Logistics Technology, Systems and Processes **

**(** Initial Technology Concentrations to be offered at program start)**

### Notes:

- Total credits required for Ph.D. = 45 beyond a master degree
- **Degree Admissions Requirements:**
  1. Undergraduate Engineering *or* Technology Degree (STEM*** category) and an MBA *or* MS in Technology Management *or* Engineering Management *or* MOT *or* equivalent & three + years of industry experience desired. If a candidate has both Undergraduate and Master’s degrees in Engineering *or* a STEM category, 3-5 years of industry experience is desired.
  2. Undergraduate Business *or* Management *or* TM *or* MOT Degree and a Master’s Degree in Engineering, Computer Science *or* other Technology *or* equivalent (STEM***) & three + years of industry experience desired.
  3. GPA of at least 3.5.
  4. Two (2) Letters of Reference.
  5. Personal Statement from Ph.D. candidate. (Background, experience, motivation in pursuing Ph.D., long term goals, areas or topics of potential research).
  7. GRE exam is required.

- A one semester teaching practice requirement.
- Completion of a publishable quality (one) journal paper or two refereed conference papers, within the course of the Ph.D. research topic. These publishable quality papers are not required to be single authored by the student and they may be co-authored with members of the dissertation committee.
- Students can choose to focus on three study options*:
  1. **Focus on Area 1**: 3 courses from Area 1 and 2 courses from Area 2 (both from one technology concentration)
  2. **Focus on Area 2**: 1 course from Area 1 and 4 courses from Area 2 (from one technology concentration)
  3. **Combination of Areas 1 and 2**: 2 Courses from Area 1 and 3 Courses from Area 2 (from one technology concentration)

*** STEM= Science, Technology, Engineering and Math; TMPD = Technology Management Ph.D. course