

Program Guide for PhD in Mechanical Engineering

- A minimum of 72 graduate level credit hours beyond the BS degree, including
 - 33 Credit hours of technical coursework, comprised of
 - 1 Technical Communications* Course (3 credits)
 - 1 Applied Mathematics** Course (3 credits)
 - May be transferred subject to departmental approval
 - 1 Business*** Course (3 credits)
 - 8 Specialization Electives**** (24 credits)
 - Some coursework may be transferred subject to departmental approval
 - 39 Credit hours of Research, which may include up to 9 credits of Master's Research & Thesis (ENGR 01.599) with the balance as Doctoral Research & Dissertation (ENGR 01.799)

*Either Effective Teaching in Academic, Corporate and Government Settings (ENGR 01.701), Strategic Technical Writing and Winning Grant Proposals (ENGR 01.702), OR other graduate level Technical Communications course taught by the Department of Writing Arts or the Henry M. Rowan College of Engineering and approved by the Graduate Program Coordinator

**Any Applied Mathematics/Graduate Math course currently approved for either the Master of Science in Mechanical Engineering or PhD in Engineering programs

***Any Business course currently approved for the Master of Science in Mechanical Engineering program

****Any Specialization Elective course currently approved for the Master of Science in Mechanical Engineering program; this coursework is to be determined in consultation with student's research advisor and the Graduate Program Coordinator:

Any graduate level course taught in the Henry M. Rowan College of Engineering

Any graduate level course taught in the College of Science and Mathematics

Any graduate level course taught in the School of Earth and Environment

Any graduate level course taught in the School of Osteopathic Medicine, the Cooper Medical School of Rowan University, or the Graduate School of Biomedical Science

Any graduate level course otherwise approved by the Mechanical Engineering Graduate Program Coordinator when specifically related to student's current or planned research

- At least 15 credits of graduate level technical coursework, including a Technical Communications course, must be successfully completed at Rowan University.
- Up to 21 credits of graduate level coursework beyond the BS may be offset by students possessing a master's degree (or equivalent) in Mechanical Engineering or a related discipline upon matriculation into the PhD program; in addition, up to 9 credits of Research may be offset by students who have completed a thesis-based master's degree or equivalent. Students matriculating under other circumstances may transfer up to 12 credits of graduate level coursework, in accordance with current Rowan Global policy. All credit offsets and

transfer credits are subject to approval of the Department and of the Rowan School of Graduate Studies.

- All 33 credits of technical coursework must be completed with equivalent grades of B- or higher. A graduate course may be retaken one time without prior approval; however, a second retake must be approved by the student's dissertation committee and the Mechanical Engineering Graduate Program Coordinator.
- Additional requirements and program timeline, inclusive of summer academic terms:
 - Successful completion of Ethical and Responsible Conduct of Research Training and Safety Training (1st term of enrollment and ongoing, as necessary)
 - Successful completion of a Preliminary Exam (before beginning of 4th term)
 - Successful completion of a Research Proposal Defense approved by the student's dissertation committee and the Mechanical Engineering Graduate Program Coordinator (after Preliminary exam and before beginning of 7th term)
 - Successful completion of required technical coursework (before beginning of 7th term)
 - Generation of scholarly works including conference publications/presentations, peer-reviewed journal papers, and grant proposals. Minimum requirements will be established by the student's dissertation committee. (before Dissertation Defense; however, progress is monitored on an annual basis)
 - Successful completion of a Dissertation Defense approved by the student's dissertation committee and the Mechanical Engineering Graduate Program Coordinator (before end of 14th term and no later than the 18th term)
 - Submission of a Final Dissertation fulfilling all requirements for acceptance by the Rowan University School of Graduate Studies (before end of 14th term and no later than the 18th term)
 - Participation in the Mechanical Engineering Seminar (0 credits) in each semester of residence (each term)
 - Up to 2 academic terms of mentored teaching assistant assignments, as determined in consultation with student's research advisor, Graduate Program Coordinator, and department head (typically after successful completion of the Proposal Defense)

Timeline note: Students may enter the program at different points in their respective pursuits of the PhD degree (e.g., some with a BS in Mechanical Engineering, some with an MS in Mechanical Engineering, yet others with a BS or MS in another related field, etc...) and at different points in the academic calendar. It is therefore not practical to provide specific timelines for all incoming students. The timeline presented above represents maximum time limits for completion of all program requirements common to every matriculated student, unless otherwise indicated. The 18 term (6 year) horizon reflects current Rowan Global policy as indicated in the Graduate & Post-Baccalaureate Student Policies Guide.