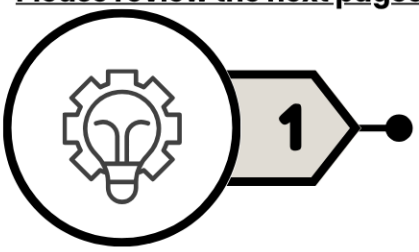
ASRE PATHWAY OF DISTINCTION IN MECHANICAL ENGINEERING

This is a general idea of the steps to complete an ASRE Pathway. The goal of this program is for students to begin during their freshman year and complete requirements throughout their college career. There is flexibility in the timeframe, but all requirements must be complete prior to graduation.

Please review the next pages for superscript notes with further information.



INITIATION

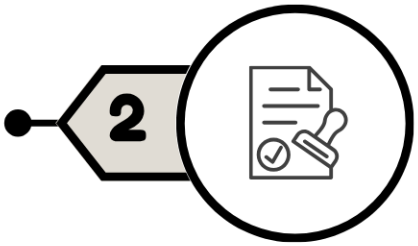
Begin by completing:

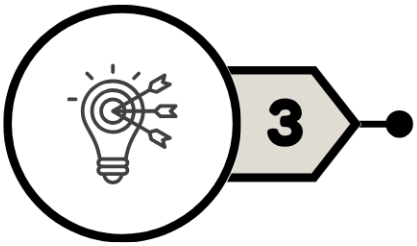
- UNIV 100 "First Year Seminar"
- MCHE 103 "Graphical Communication & Design"

BUILDING SKILLS

Build skills through:

- MCHE 201 "Intro to Engineering Design & Mechatronics"
- ENGR 220 "Fundamentals of Engineering Innovation"
- MCHE 357 "Mechatronics"
- Two (2) research related workshops[1]





MASTERING SKILLS

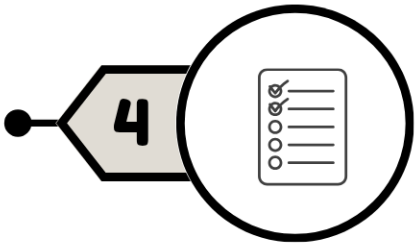
Master skills through:

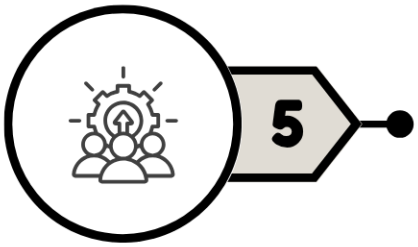
- MCHE 358 "Energy Systems Laboratory"
- MCHE 362 "Thermal Engineering"
- MCHE 363 "Kinematics of Machines"
- MCHE 365 "Manufacturing Processes"
- MCHE 367 "Machine Design I"

PROFESSIONAL DEVELOPMENT

Develop professionally through:

- MCHE 469 "Heat Transfer"
- The professional development experience: either a leadership experience[2] OR complete an REU[3] OR participate in a departmental, university, regional, national, or international competition[4]





DISSEMINATION

Disseminate through:

- MCHE 484 "Engineering Projects II"
- Presentation at a department, university, regional, national, or international conference

ASRE PATHWAY OF EXCELLENCE IN MECHANICAL ENGINEERING

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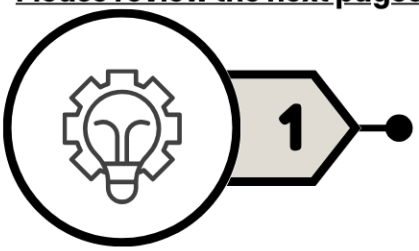

INITIATION

Begin by completing:

- UNIV 100 "First Year Seminar"
- MCHE 103 "Graphical Communication & Design"

BUILDING SKILLS

Build skills through:

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- ENGR 220 "Fundamentals of Engineering Innovation"
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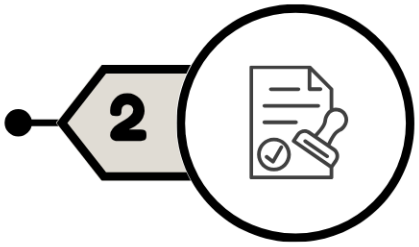
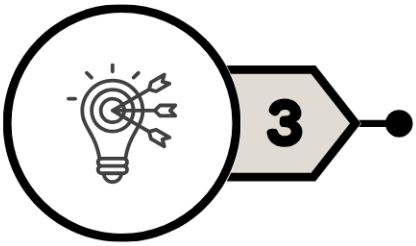
- Two (2) research related workshops[1]





MASTERING SKILLS

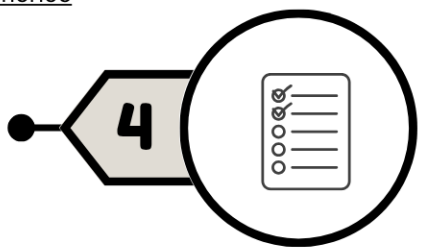
Master skills through:

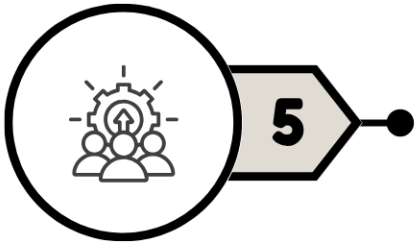
- MCHE 358 "Energy Systems Laboratory"
- MCHE 362 "Thermal Engineering"
- MCHE 363 "Kinematics of Machines"
- MCHE 365 "Manufacturing Processes"
- MCHE 367 "Machine Design I"
- Leadership Experience[2]

PROFESSIONAL DEVELOPMENT

Develop professionally through:

- MCHE 469 "Heat Transfer"
- The professional development experience: either complete an REU[3] OR participate in a departmental, university, regional, national, or international competition[4] OR complete a COOP/Internship[5]





DISSEMINATION

Disseminate through:

- MCHE 484 "Engineering Projects II"
- The dissemination experience: either a presentation at a regional, national, or international conference OR author or co-author a publication submission OR complete an honors thesis

Mechanical Engineering ADVANCE SRE Pathways

STUDENT VIEW

See the next page for superscript notes with more information.

Advance SRE Pathway of **Distinction** Curricular and Co-curricular* Events Required	Advance SRE Pathway of **Excellence** Curricular and Co-curricular* Events Required
Curricular 1. UNIV 100 2. MCHE 103 3. MCHE 201 4. ENGR 220 5. MCHE 357 6. MCHE 358 7. MCHE 362 8. MCHE 363 9. MCHE 365 10. MCHE 367 11. MCHE 469 12. MCHE 484 **Co-curricular** 13. Two (2) approved workshops[1] 14. Professional Development Leadership Experience[2] **OR** REU[3] **OR** Competition[4] 15. Presentation at a departmental, university, regional, national, or international conference	**Curricular** 1. UNIV 100 2. MCHE 103 3. MCHE 201 4. ENGR 220 5. MCHE 357 6. MCHE 358 7. MCHE 362 8. MCHE 363 9. MCHE 365 10. MCHE 367 11. MCHE 469 12. MCHE 484 **Co-curricular** 13. Two (2) approved workshops[1] 14. Leadership Experience[2] 15. Professional Development REU[3] **OR** Competition[4] **OR** COOP/Internship[5] 16. Dissemination Presentation at a regional, national, or international conference **OR** Publication submission (author or co-author) **OR** Honors Thesis

Mechanical Engineering ADVANCE SRE Pathways
Superscript Notes:

* ASRE-approved courses only. Students who have earned credits for a course that is not ASRE approved may petition to substitute that course with a 300 or 400 level course identified as providing research skill. The SCRCS Advance office will review the petition for approval. Approved substitutions are only for the purpose of completing an Advance Pathway and are not approved as substitution for the degree.

[1]Approved workshops can include, but are not limited to SCRCS, library, or university workshops. SCRCS Advance Workshops can be found on the UL Lafayette SCRCS website. 1 in person SCRCS workshop is equivalent to 2 virtual SCRCS workshops. Other workshops focused on research skills are possible by approval from the Mechanical Engineering department.

[2]Leadership experience includes, but is not limited to, departmental service events, officership in departmental club, SGA officership, student tutor/mentor. Examples of clubs include, but are not limited to, ASME, ASHRAE, BMES, NSBE, SME, SWE.

[3]REU is a 10-week research intensive experience for undergraduates sponsored by the National Science Foundation

[4]Participation in competition is required. Departmental, university, regional, national, or international competitions will count.

[5]COOP/Internship may be internal or external to UL Lafayette. MCHE 399 would be accepted for this requirement.