



**WICHITA STATE
UNIVERSITY**



**COWLEY
COLLEGE**

**WICHITA STATE UNIVERSITY AND COWLEY COLLEGE 2+2 AGREEMENT
Associates of Science Degree/Bachelor's Degree in Product Design and Manufacturing
Engineering
July 23, 2019**

The purpose of the 2+2 Agreement is to provide Cowley College's students a four-year coordinated program through the pre-engineering curriculum where students will receive an Associates of Science degree at Cowley College (CC) in the first two years and a Bachelor of Science degree in Product Design and Manufacturing Engineering from Wichita State University (WSU) after two additional years. This agreement will provide guidance for both parties in advising students.

This agreement is for Cowley College students who have:

- Earned an Associates of Science (A.S.) degree according to attached degree plan in Pre-Engineering.
- Achieved a minimum cumulative GPA of 2.0.
- Applied for admission to WSU.

Cowley College students meeting the above requirements will:

- Be guaranteed admission to WSU with completion of application requirements and receipt of transcripts.
- Enter with junior status toward a baccalaureate degree.
- Be guaranteed to transfer 63 credit hours from Cowley College to WSU.

This partnership reflects the following objectives, institutional expectations, and operational principles:

- Expanded student program opportunities, course articulation understandings, and transfer coordination considered mutually beneficial in this coordinated partnership.
- Graduates will possess the technical skills and conceptual background, creative mindset and applied experiences to address the workforce needs for achieving the desired economic development in the State of Kansas.
- All students must complete all major, institutional, and required degree requirements appropriate to the program curricula at the degree granting institution in order to graduate.
- Both Cowley College and Wichita State University College of Engineering program faculty and administrators will promote the program with qualified prospective students and share assessment of learning outcomes toward the goal of program improvement.
- Students can inquire about academic and participation scholarships, financial aid, and grants by contacting the WSU Financial Aid office (316) 978-3430 and the College of Engineering, Engineering Student Success Center at (316) 978-3420.
- Students transferring to WSU from Cowley College who have not completed an A.S. must meet the necessary requirements for admission to WSU, and will have their transcript evaluated on an individual basis.

In order to ensure a successful transition and completion of the associates' and bachelors' degrees from both institutions in this 2+2 agreement, students should refer to the required degree plans or stipulations of this agreement. Transfer students must complete at least 60 credit hours of four-year college work including 45 credit hours of upper-division work in order to qualify for graduation from Wichita State University. Courses used as prerequisites may have higher grade requirements as described in the WSU undergraduate catalog.

Reverse Transfer

Students, who transfer to Wichita State University from Cowley College before attainment of the Associates of Science degree, are eligible to reverse transfer courses that have WSU/CC equivalency back to Cowley. This allows for the attainment of the Associates of Science degree provided that at least 45 credit hours are earned at Cowley and all other degree requirements are met.

Modification of Agreement

This agreement shall only be modified in writing with the same formality as the original agreement.

Terms of Agreement

The agreement will begin with the 2019-2020 academic year.

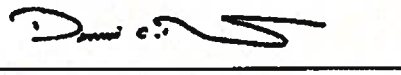
Termination of Agreement

Either party may terminate this agreement for any reason with a written notice from either party.

This agreement is a collaboration between Wichita State University and Cowley College. Any changes, corrections, or additions to this agreement shall be in writing and signed by all necessary parties between both academic institutions.

Wichita State University

Cowley College



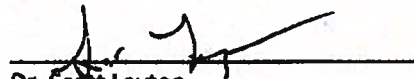
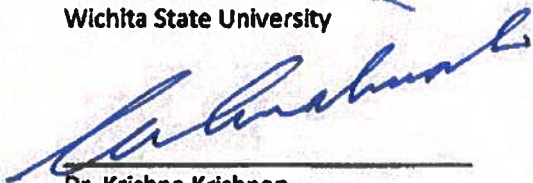
Dr. Richard Muma
Provost and Professor
Wichita State University

Dr. Dennis C. Rittle
President
Cowley College



Dr. Dennis Livesay
Dean, College of Engineering
Wichita State University

Dr. Michelle Schoon
Interim Vice President of Academic Affairs
Cowley College



Dr. Krishna Krishnan
Department Chair
Industrial, Systems and Manufacturing Engineering
Wichita State University

Dr. Scott Layton
Faculty and Chair
Natural Science Department
Cowley College

**Product Design and Manufacturing Engineering Pathway (2+2)
Cowley College & Wichita State University
Courses taken at Cowley College for completion of Associates Degree of Science**

| Freshman – 1st Semester (Taken at Cowley) 16 Credit Hours | | |
|--|---|--------------|
| Wichita State University Equivalent | Cowley College | Hours |
| ENGL 101 College English I | ENG 2211 Composition I | 3 |
| MATH 242 Calculus I | MTH 4435 Calculus I | 5 |
| CHEM 211 General Chemistry I | CHM 4220 Chemistry I | 5 |
| ENGR 101 Introduction to Engineering (TE*) | PHS 4545 Intro to Engineering | 2 |
| HPS 2000 Elective (not transferable to B.S. degree) | Heath & Physical Education Elective | 1 |
| Freshman – 2nd Semester (Taken at Cowley) 17 Credit Hours | | |
| ENGL 102 College English II | ENG 2212 Composition II | 3 |
| General Education (Social and Behavioral Science) | Approved General Education (Social and Behavioral Science) as found on the WSU Transfer Guide | 3 |
| MATH 243 Calculus II | MTH 4440 Calculus II | 5 |
| General Education (Fine Arts) | Approved General Education (Fine Arts) as found on the WSU Transfer Guide | 3 |
| CS 211 Introduction to Programming | CIS 1876 C Programming | 3 |
| Sophomore – 1st Semester (Taken at Cowley) 14 Credit Hours | | |
| COMM 111 Public Speaking | COM 2711 Public Speaking | 3 |
| IME 255 Engineering Economy | PHS 4555 Engineering Economy | 3 |
| MATH 350 Modeling Differential Equations | MTH 4465 Differential Equations | 3 |
| PHYS 313 Physics for Scientists I and PHYS 315 University Physics Lab I | PHS 4560 Engineering Physics I | 5 |
| Sophomore – 2nd Semester (Taken at Cowley) 17 Credit Hours | | |
| General Education (Social & Behavioral Science) | Approved General Education (Social and Behavioral Science) as found on the WSU Transfer Guide | 3 |
| IME 254 Engineering Probability and Statistics I | MTH 4445 Engineering Probability and Statistics I | 3 |
| PHYS 314 Physics for Scientists II and PHYS 316 University Physics Lab II | PHS 4561 Engineering Physics II | 5 |
| AE 223 Statics | PHS 4570 Statics | 3 |
| General Education (Humanities) | Approved General Education (Humanities) as found on the WSU Transfer Guide | 3 |

A total of 64 credit hours taken at Cowley College for completion of Associates Degree of Science
63 credit hours will transfer to WSU towards B.S. degree in Product Design and Manufacturing Engineering

**Product Design and Manufacturing Engineering Pathway (2+2)
Cowley College & Wichita State University**

Courses taken at Wichita State for completion of B.S. In Product Design and Manufacturing Engineering

| Junior - 1st Semester (Taken at WSU) 14 Credit Hours | |
|---|----------------|
| Wichita State University Requirement | Credits |
| EE 282 Circuits I | 4 |
| ME 250 Materials Engineering | 3 |
| ME 251 Materials Engineering Laboratory | 1 |
| AE 333 Mechanics of Materials | 3 |
| IME 222 Engineering Graphics | 3 |
| Junior - 2nd Semester (Taken at WSU) 17 Credit Hours | |
| General Education-Further Studies | 3 |
| IME 258 Manufacturing Methods I | 3 |
| IME 258L Manufacturing Methods Lab | 1 |
| PHIL 385 Engineering Ethics | 3 |
| Technical Elective | 3 |
| IME 558 Manufacturing Methods II | 4 |
| Junior - Summer Semester (Taken at WSU) 3 Credit Hours | |
| IME 676 Aircraft Manufacturing and Assembly (SUMMER ONLY) | 3 |
| Senior - 1st Semester (Taken at WSU) 16 Credit Hours | |
| Technical Elective | 3 |
| IME 554 Statistical Quality Control | 3 |
| IME 561 Industrial Controls and Instrumentation | 4 |
| IME 425 Kinematic and Dynamic Design | 3 |
| IME 553 Production Systems | 3 |
| Senior - 2nd Semester (Taken at WSU) 15 Credit Hours | |
| Technical Elective | 3 |
| IME 761 Robotics Tech | 3 |
| IME 590 Industrial Engineering Design I | 3 |
| IME 625 Robust Product Design | 3 |
| ME 672 Manufacturing of Composites | 3 |

A total of 65 credit hours taken at Wichita State for the completion of the B.S. degree in Product Design and Manufacturing Engineering