WICHITA STATE UNIVERSITY

Butler Community College

2+2 Articulation Agreement Between

Wichita State University and Butler Community College

March 27, 2019

The purpose of this 2+2 agreement is to provide Butler Community College students the opportunity to transfer coursework from Butler Community College (Butler) to Wichita State University (WSU) in pursuit of a baccalaureate degree with a major in Computer Engineering.

This agreement is for Butler students who have:

- Earned an Associates of Arts (A.A.) or Associates of Science (A.S.) degree
- Achieved a minimum cumulative GPA of 2.0
- Applied for admission to WSU

Butler 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 all credits (100 level and higher) up to but not exceeding 64 credits from Butler with an earned grade of a C or better

Students can inquire about academic and participation scholarships, financial aid, and grants by contacting the WSU Financial Aid office (316-978-3430) or Butler's Advising Office (316) 322-6404.

For graduation from WSU with a Bachelor of Science in Computer Engineering degree, students will need to fulfill transfer coursework from Butler along with all WSU general education requirements, degree requirements, and must meet all requirements for graduation as outlined by WSU.

To apply for admission students may contact the WSU Admissions office by calling: (316) 978-3085. Information and applications can also be found online at: www.admissions@wichita.edu.

Students transferring to WSU from Butler who have not completed an A.A. or A.S. must meet the necessary requirements for admission to WSU, and will have their transcript evaluated on an individual basis.

WICHITA STATE UNIVERSITY

Butler Community College

**Wichita State University**

**Dr. Richard D. Muma**
**Provost and Professor**

**Dr. Dennis Livesay**
**Dean, College of Engineering**

**Butler Community College**

**Dr. Kimberly Krull**
**President**

**Lori Winningham**
**Vice President of Academics**

## Computer Engineering Pathway (2+2)
## Butler Community College & Wichita State University
## Courses taken at Butler Community College for completion of Associate in Science Degree

| | | **Freshman – 1st Semester (Taken at Butler) 14 Credit Hours** | |
|---|---|---|---|
| **Wichita State University Equivalent** | **Hours** | **Butler Community College** | **Hours** |
| ENGL 101 College English I (3) | 3-G | EG 101 English Composition I | 3 |
| MATH 242 Calculus I (5) | 5-M | MA 151 Calculus I w/Analytic Geometry | 5 |
| General Education (Social & Behavioral Sciences) (3) | 3-G | Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide | 3 |
| General Education (Humanities) (3) | 3-G | Approved General Education (Humanities) as found on the WSU Transfer Guide | 3 |
| | | **Freshman – 2nd Semester (Taken at Butler) 15 Credit Hours** | |
| ENGL 102 College English II (3) | 3-G | EG 102 English Composition II | 3 |
| MATH 243 Calculus II (5) | 5-M | MA 152 Calculus II w/Analytic Geometry | 5 |
| CS 211 Introduction to Programming (4) | 3-C | IN 200 Beginning C++ w/Game Programming | 3 |
| General Education (Fine Arts) (3) | 3-G | Approved General Education (Fine Arts) as found on the WSU Transfer Guide | 3 |
| HPS 2000 Elective (not transferable) | 0 | Any Fitness/Wellness Elective | 1 |
| | | **Sophomore – 1st Semester (Taken at Butler) 14 Credit Hours** | |
| COMM 111 Public Speaking (3) | 3-G | SP 100 Public Speaking | 3 |
| PHYS 313 Physics for Scientists I (4) and PHYS 315 University Physics Lab I (1) | 4-M<br>0 | PH 251 Physics I | 5 |
| IME 255 Engineering Economy (3) | 3-C | EC 250 Engineering Economics | 3 |
| MATH 344 Calculus III (3) | 3-T* | MA 253 Calculus III w/Analytic Geometry | 3 |
| | | **Sophomore – 2nd Semester (Taken at Butler) 17 Credit Hours** | |
| General Education (Social & Behavioral Sciences) (3) | 3-G | Approved General Education (Social & Behavioral Science) as found on the WSU Transfer Guide | 3 |
| MATH 350 Modeling Differential Equations (Satisfies MATH 555 Differential Equations I requirement) (3) | 3-M | MA 260 Differential Equations | 3 |
| PHYS 314 Physics for Scientists II (4) and PHYS 316 University Physics Lab II (1) | 4-M<br>1-M | PH 252 Physics II | 5 |
| General Education-Further Studies (3) | 3-G | Approved General Education (Humanities) as found on the WSU Transfer Guide | 3 |
| CS 464 Computer Networks (3) | 3-C | IN 245 CCNA I Internetworking Fundamentals | 3 |
| **Total:** | 58 | | 60 |

G: General Ed.; M: Math/Science; C: Engineering Core; T: Technical Elective

* this transfers in as 3 credit hours (CH) of technical electives to make up the 1 CH lost during the transfer of IN200->CS 211 (since that provides 1CH additional TE and thus a total of 9 TEs of which 6CH must be taken at WSU)

A total of 60 credit hours taken at Butler Community College for completion of Associates in Science degree

58 credit hours will transfer to WSU towards B.S. degree in Computer Engineering

## Computer Engineering Pathway (2+2)
## Butler Community College & Wichita State University
## Courses taken at Wichita State for completion of B.S. in Computer Engineering

| Junior – 1st Semester (Taken at WSU) 18 Credit Hours | |
|---|---|
| **Wichita State University Requirement** | **Hours** |
| EE 282 Circuits I | 4 |
| MATH 321 Discrete Structures I | 3 |
| CS 238 Assembly Language Programming | 3 |
| CS 311 Object-Oriented Programming | 4 |
| CS 194 Introduction to Digital Design | 4 |
| **Junior – 2nd Semester (Taken at WSU) 18 Credit Hours** | |
| EE 284 Circuits II | 3 |
| PHIL 354 Ethics & Computers | 3 |
| CS 394 Introduction to Computer Architecture | 3 |
| CS 400 Data Structures and Algorithms I | 4 |
| EE 492 Electronic Circuits I | 4 |
| CS 285 L Programming w/MATLAB for EECS | 1 |
| **Senior – 1st Semester (Taken at WSU) 16 Credit Hours** | |
| CS 594 Microprocessor Based System Design | 4 |
| CS 540 Operating Systems | 3 |
| EE 585 Electrical Design Project I | 2 |
| Technical Elective | 3 |
| CS 338 FPGA-Based System Design | 4 |
| **Senior – 2nd Semester (Taken at WSU) 14 Credit Hours** | |
| ME 398 Thermodynamics I | 3 |
| IME 254 Engineering Probability & Statistics | 3 |
| EE 595 Electrical Design Project II | 2 |
| MATH 511 Linear Algebra | 3 |
| Technical Elective | 3 |
| **Total:** | 66 |

The plan above requires 45 hours of upper-division course work.
A total of 66 credit hours taken at Wichita State for the completion of the B.S. degree in Computer Engineering