# Articulation Agreement for Blue Ridge Community College

# Associate of Science Degree – Engineering Specialization and James Madison University Bachelor of Science of Engineering

#### 1. Introduction

James Madison University and Blue Ridge Community College recognize the need and importance of facilitating the transfer of students from one institution to the other as they pursue their educational goals. Therefore, James Madison University (JMU) and Blue Ridge Community College (BRCC) enter into this agreement for the purpose of articulating policies and procedures governing the matriculation of BRCC graduates holding the Associate of Science Degree with Engineering Specialization into the College of Integrated Science and Engineering Bachelor of Science in Engineering degree program at JMU.

The faculty members of the Department of Engineering at JMU have developed a program that is notable for its multi-disciplinary approach, project-based learning, and substantial design orientation. This represents a non-traditional approach that will require some adjustment for the transfer student.

There are several interdependencies between courses in the JMU engineering curriculum. Students who wish to complete their degree with two additional years at JMU should be aware that most courses are only offered once per year. Failure to complete any course per the schedule shown on page 5 may delay graduation by a full year.

# 2. Student Eligibility and Admission Requirements

- 2.1 A student who has met the criteria for the BRCC-JMU Agreement, has completed the A.S. degree with Engineering Specialization as outlined in the BRCC-JMU Agreement, and has met the requirements listed in sections 2.1.1–2.1.2 below qualifies for conditional admission into the Department of Engineering at JMU as an Engineering major with junior standing.
  - 2.1.1 The student has earned a minimum curriculum grade point average of 3.0 on a 4.0 scale.
  - 2.1.2 The student has earned a grade of C or better in all required engineering (EGR), math (MTH), physics (PHY), and chemistry (CHM) courses and technical electives.

#### 3. Student Status and Course Credit

- 3.1 Qualifying students will be conditionally granted admission to the Department of Engineering at JMU as Engineering majors with junior standing.
  - 3.1.1 Admission is conditional based on availability of seats in the Department of Engineering
- 3.2 Students entering the Engineering major under the conditions of this agreement as stated in section 2 will have the following JMU requirements satisfied:
  - 3.2.1 JMU General Education requirements will be satisfied.
  - 3.2.2 The JMU Bachelor of Science degree quantitative and scientific literacy requirements will be satisfied.
  - 3.2.3 Students will be not be required to take ENGR 112 or ENGR 212 provided they have completed the A.S. degree with engineering specialization as listed in section 2 and have completed EGR 115, EGR 120, EGR 140, and EGR 245. Students will enroll in ENGR 231, ENGR 322 and ENGR 331 concurrently for fall semester starts, and ENGR 221 for Spring Semester starts.
- 3.3 Students entering the Engineering major under the conditions of this agreement must fulfill the following requirements after admission to JMU:
  - 3.3.1 For graduation with the baccalaureate degree, all JMU students must have a minimum of 120 earned credit hours accepted by JMU, have earned at least 50% of credit hours accepted by JMU from accredited senior (four-year) institutions of higher education, including JMU (60 credits for degree programs of 120 credits), and have earned a minimum of 25% of credit hours at JMU (30 credits for degree programs of 120 credits).
  - 3.3.2 Students must meet JMU and Engineering major grade point average and progression standard requirements.
  - 3.3.3 Students must satisfy remaining competency requirements, such as the Honor Code test.
  - 3.3.4 Students must meet the residence requirement.
- 3.4 Students who have obtained an Associate of Science degree but do not meet the Engineering admission requirements as stated in section 2 may declare the Engineering major at JMU with permission of the Academic Unit Head of the Department of Engineering. These students will not enter with junior standing in Engineering, and will be reviewed for program admission at the completion of sophomore year courses. Such students are unlikely to complete degree requirements in four semesters.
- 3.5 Students admitted to JMU from BRCC will be eligible for merit scholarships based upon academic performance, as well as other forms of financial aid.

### 4. Responsibilities of the Parties

During the period of this agreement, JMU agrees to do the following tasks.

- 4.1 Publish annually a transfer guide and a guide to course requirements for BRCC students to use in planning their programs of study.
- 4.2 Provide annually to BRCC data about the academic performance of students who transfer under this agreement as compared to the academic performance of JMU native Engineering students.

During the period of this agreement, BRCC agrees to do the following tasks.

- 4.3 Publicize this agreement to its students, faculty and administration.
- 4.4 Review the data provided from section 4.2 and consider making adjustments to the BRCC curriculum as appropriate.

# 5. Institutional Cooperation

During the period of this agreement, both institutions agree to do the following tasks.

- 5.1 Monitor the academic performance of students enrolling under this agreement, identify problems, and work cooperatively to adjust details of course sequence and content so that students can transfer without academic interruptions.
- 5.2 Notify each other concerning any contemplated curricular changes that would affect the status of this agreement.
- 5.3 Jointly develop and publish an advising guide based on the current JMU and BRCC catalogs.

#### 6. Period of Application of the Agreement

6.1 Either party to this agreement may withdraw from this agreement by providing written notice to the appropriate parties. The following persons must be notified one year in advance of their intention to withdraw: Academic Unit Head of the Department of Engineering at JMU and the President of BRCC.

#### **Notes:**

- 1. Admission is conditional based on availability of seats in the Department of Engineering.
- 2. Students must earn a minimum of 60 credits at JMU in order to graduate. This means that in addition to the courses shown, an additional 10 credits of free electives from JMU will be required.
- 3. In order to maintain full time status, students are required to take a minimum of 12 credits per semester.
- 4. ABET requires that a minimum of 25% of required credits are in Math and Basic Sciences, and that a minimum of 37.5% of required credits are in Engineering Topics (ABET Self-Study Table 5-1). Assuming that all of the required Engineering courses shown above are completed, and that an additional 10 credits of free electives (not shown in the JMU schedule) are taken, the following two extreme scenarios could take place.
  - a. If ALL of the Technical Electives at JMU are taken as Math and Basic Sciences, the percentage of required courses are:
    - i. 33% Math and Basic Sciences
    - ii. 44% Engineering Topics
  - b. If ALL of the Technical Electives at JMU are taken as Engineering Topics, the percentage of required courses are:
    - i. 26% Math and Basic Sciences
    - ii. 50% Engineering Topics

Either of the extreme cases shown above will fulfill the ABET requirement.

#### Additional University Requirements

Honor Code Test

A minimum of 120 total credit hours with a cumulative GPA of at least a 2.0

Meet JMU Department of Engineering progression standards for junior/senior level courses

Enrollment at JMU in the semester that degree requirements are satisfied