The Karlsruhe Institute of Technology (KIT) is one of the largest and most prestigious research and education institutions in Germany and one of the leading universities in engineering and science in Europe. For more information, go to their website at www.kit.edu/english.

Duration of Study: October thru February and April thru July.

Language Requirement: Courses are conducted in German. Completion of GER 2106 at VT or equivalent before departure. Students arrive approximately one month before the start of the semester and will spend that time studying German and acclimating to the university and local community.

Program Cost: Virginia Tech tuition, travel, housing and food. Students are encouraged to apply for scholarships.

Transfer Credit: Academic credit toward an ISE degree for pre-approved engineering courses. ISE courses that have been approved to transfer to Virginia Tech from KIT include:

- ISE 2204 Manufacturing Processes
- ISE 3414 Probabilistic Operations Research
- ISE 3424 Discrete-Event Computer Simulation
- ISE 3624 Industrial Ergonomics
- ISE 3xxx/4xxx Technical Elective (variety of classes offered)
- ECE 3054 Electrical Theory

Business courses may be applied toward the Business minor for ISE majors. Students can identify other courses of interest and request approval before departure from VT.

German Language Requirement

Good German language skills are necessary. Ideally students have completed 3000-level German, or equivalent, before beginning the 1st semester at KIT. In addition to VT courses, students can learn German using VT Library resources, including the on-line MANGO program. Affordable, private tutoring to accommodate students’ schedules and learning needs can also be arranged.

For more information, contact Paula Van Curen, ISE Academic & Program Advisor at pcuren@vt.edu or Dr. Christian Wernz, ISE Assistant Professor, at cwernz@vt.edu.

Turn over for an example plan of study for a student studying at KIT.
## Example Graduation Checklist for ISE Students Studying at Karlsruhe Institute of Technology in Germany

### Fall Semester Freshman
- ENGL 1105 First-Year Writing: **3**
- CHEM 1035 General Chemistry: **3**
- CHEM 1045 General Chemistry Lab: **1**
- MATH 1114 Linear Algebra: **2**
- MATH 1205 Calculus I: **3**
- ENGE 1024 Engineering Exploration: **2**
- Elective*: **3**

**Total**: **17**

### Spring Semester Freshman
- ENGL 1106 First-Year Writing: **3**
- PHYS 2305 Found of Physics I w/lab: **4**
- MATH 1206 Calculus II: **3**
- MATH 1224 Vector Geometry: **2**
- ENGE 1104 Exploration Digital Future OR ENGE 1114 Exploration Engr Design: **2**
- Elective*: **3**

**Total**: **17**

### Fall Semester Sophomore
- PHYS 2306 Foundations of Physics II w/lab: **4**
- MATH 2224 Multivariable Calculus: **3**
- CS 1044 Introduction to Programming in C: **3**
- ESM 2104 Statics: **3**
- ISE 2014 Engineering Economy: **2**
- ISE 2214 Manufacturing Processes Lab: **1**
- ISE 2004 Intro to ISE: **2**

**Total**: **18**

### Spring Semester Sophomore
- MATH 2214 Differential Equations: **3**
- STAT 4105 Theoretical Statistics: **3**
- ISE 2204 Manufacturing Processes: **3**
- ISE 2404 Deterministic Operation Research I: **3**
- GER 1114 Accelerated Elementary German: **6**

**Total**: **18**

### Summer I Semester
- GER 2114 Accelerated Intermediate German: **6**

**Total**: **6**

### Kit Winter Oct-Feb
- Stochastic Decision Modeling (Sub for ISE 3414 POR): **3**
- German Language: **3**

**Total**: **6**

### Kit Summer April-July
- Simulation I (Sub for ISE 3424 Discrete-Event Simulation): **3**
- Ergonomics (Sub for ISE 3624 Industrial Ergonomics): **3**
- Elective*: **3**

**Total**: **9**

### Fall Semester Junior
- ECE 3054 Electrical Theory: **3**
- STAT 4706 Statistics for Engineers: **3**
- ESM 2304 Dynamics: **3**
- ISE 3434 Deterministic Operation Research II: **3**
- ISE 3614 Intro to Hum Factors Engr & Ergo: **3**

**Total**: **15**

### Spring Semester Junior
- ISE 3214 Facilities Plan & Matl Handling: **3**
- ISE 4404 Statistical Quality Control: **3**
- ISE 2034 Data Management for ISEs: **3**
- Electives*: **6**

**Total**: **15**

### Fall Semester Senior
- ISE 4005 Proj Mgmt & System Design: **3**
- ISE 4204 Production Planning and Inv Ctrl: **3**
- Electives*: **7**

**Total**: **13**

### Spring Semester Senior
- ISE 4006 Proj Mgmt & System Design: **2**
- ISE 4214 Lean Manufacturing: **3**
- Electives*: **6**

**Total**: **11**

*Electives: 16c Curriculum for Liberal Education courses; 6c ISE Technical Electives; 6c Technical Electives; 3c Free Electives.

**Disclaimer:** Courses you take at KIT will depend on what is offered during the semesters you are enrolled and may be different from the courses included in this example checksheet. Courses that fulfill requirements for a Business minor or the Curriculum for Liberal Education may be taken. See Ms. Van Curen for information on your particular plan of study.