

Virginia Tech BSME Rising Junior Summer at Shanghai Jiao Tong University, China



Virginia Tech mechanical engineering students now have the option to complete part of their VT BSME degree as rising juniors at the Shanghai Jiao Tong University in China.

Shanghai Jiao Tong University (SJTU) is one of the very best universities in China, and it is ranked #1 in mechanical engineering in China. The courses in this VT BSME Rising Junior program are taught in English and are offered through the **University of Michigan - Shanghai Jiao Tong University Joint Institute** (UM-SJTU-JI).

Page 2 details the proposed study plan. The courses listed at Shanghai Jiao Tong University have been approved for transfer credit. This study plan has been designed to enable students to also participate in the VT-TUD dual BSME degree program if they so choose. **Alternative course selections are available to rising sophomores and rising seniors.**

Students that are interested in participating in this program will need to **direct-enroll** with UM-SJTU-JI (i.e., as “study abroad” and not “exchange”). **Application deadline is March 22, 2016.** See pages 5-7.

Students are strongly encouraged to contact the **VT Global Education Office** to manage their status as a VT student while at Shanghai Jiao Tong University: <http://www.educationabroad.vt.edu/>

IMPORTANT: Though the courses at Shanghai Jiao Tong University that are listed on the next page have been approved for transfer credit to Virginia Tech, participating students must still individually complete the VT College of Engineering Transfer Credit Request form on page 3 — **before they depart the US:**

<http://www.eng.vt.edu/students/Transferring-credits>

Point of contact: Dr. Jan Helge Böhn, Mechanical Engineering
114-H Randolph Hall, TEL: +1-540-231-3276, Email: bohn@vt.edu

The Virginia Tech Department of Mechanical Engineering is a *University Exemplary Department* (2010) because of its high-quality education abroad program options. For instance, its students can start learning German as late as in their junior year and still complete their senior year in Germany, to simultaneously earn a VT BSME degree and a BSME degree from Technische Universität Darmstadt — the leading mechanical engineering program in Germany. See the Virginia Tech Undergraduate Course Catalog for details.

The following study plan has been developed for students that are on schedule. The courses shown below at SJTU have been preapproved.

Other courses are available (e.g., for rising sophomores or rising seniors), but these need to be preapproved before departing for China. Please see Dr. Jan Helge Bøhn for details.



China

FALL SEMESTER, FRESHMAN YEAR — 16 semester credit hours:

- ENGL 1105: Freshman English I
- MATH 1225: Calculus I
- ENGE 1215: Foundations of Engineering I
- CHEM 1035: General Chemistry
- CHEM 1045: Chemistry Lab
- **STS 2054: Engineering Cultures** (AREA 2 & AREA 7) — **RECOMMENDED**

SPRING SEMESTER, FRESHMAN YEAR — 17 semester credit hours:

- PHYS 2305: Foundations of Physics I
- ENGL 1106: Freshman English II
- MATH 1226: Calculus II
- MATH 2114: Linear Algebra
- ENGE 1216: Foundations of Engineering II
- Curriculum for Liberal Education AREA 6

FALL SEMESTER, SOPHOMORE YEAR — 16 semester credit hours:

- PHYS 2306: Foundations of Physics II
- MATH 2224: Multivariable Calculus
- ESM 2104: Statics
- Programming Course elective (2 credits)
- ISE 2214: Manufacturing Processes Laboratory
- ME 2024: Introduction to Engineering Design & Economics

SPRING SEMESTER, SOPHOMORE YEAR — 16 semester credit hours:

- ECE 2054: Applied Electrical Theory
- STAT 3704: Statistics for Engineering Applications
- ESM 2304: Dynamics
- ESM 2204: Mechanics of Deformable Bodies
- ME 2124: Introduction to Thermal & Fluids Engineering
- MATH 2214: Introduction to Differential Equations

AREA 2 credits:

The SJTU course Vz102 has been approved as two (2) semester credit hours of VT AREA 2.

Students will be responsible for completing the missing one (1) semester credit hour of AREA 2 study. This can be achieved by **approved** independent study, undergraduate research, or transfer credit — in case a standard one-credit AREA 2 course is not offered by Virginia Tech.

SHANGHAI JIAO TONG UNIVERSITY, SUMMER, 12 weeks:

- Vz102 Introduction to Chinese Culture (2 credits) → AREA 2 (2 credits) --- see above note on "AREA 2 credits"
- Vz104 Introduction to Chinese Language (2 credits) → FL 1XXX (2 credits)
- Vm235 - ME 235 Thermodynamics (3 credits) → ME 3124 Thermodynamics
- Vm335 - ME 335 Heat Transfer (3 credits) → ME 3304 Heat & Mass Transfer

PREREQUISITES:
ME 2124, MATH 2214

FALL SEMESTER, JUNIOR YEAR — 12 semester credit hours:

- ECE 3254: Industrial Electronics
- ME 3514: System Dynamics
- ME 3614: Machine Design I
- ME 3404: Fluid Mechanics

SPRING SEMESTER, JUNIOR YEAR — 12 semester credit hours:

- ME 4005: Mechanical Engineering Laboratory I
- ME 4504: Control Engineering **or** ME 3504: Vibrations
- MSE 2034: Elements of Materials Engineering
- TECHNICAL ELECTIVE

If going to Germany your senior year, then add these two courses:

Fall semester, junior year:
GER 1105 Elementary German I

Spring semester, junior year:
GER 1106 Elementary German II

Shanghai Jiao Tong University

The following courses at the Shanghai Jiao Tong University, China have been approved for transfer credit at Virginia Tech.

Other Institution				VT Equivalent			
Dept	Course #	Course Title	#Cr Hrs	Dept	Course #	Course Title	#Cr Hrs
SJTU-JI	Vz102	Introduction to Chinese Culture	2	N/A	N/A	AREA 2	2
SJTU-JI	Vz104	Introduction to Chinese Language	2	FL	1XXX	Foreign Language Elective	2
SJTU-JI	Vr204	Modern Asia - Colonialism, Anti-Colonialism and State Formation	4	HUM	1924	Explorations in Modern Asian Cultures	3
				HUM	1XXX	Elective (AREA 2)	1
SJTU-JI	Vr236	Film Art and History	4	CINE	2054	Introduction to Cinema	3
				CINE	2XXX	Elective (AREA 6)	1
SJTU-JI	Vr361	Ethics	4	PHIL	1304	Morality and Justice	3
				PHIL	1XXX	Elective (AREA 2)	1
SJTU-JI	Vm235	Thermodynamics	3	ME	3124	Thermodynamics	3
SJTU-JI	Vm335	Heat Transfer	3	ME	3304	Heat & Mass Transfer	3
SJTU-JI	Vm440	Intermediate Dynamics and Vibrations	4	ME	3504	Dynamic Systems - Vibrations	3
				ME	4XXX	Technical Elective (List #1)	1

Revised: May 29, 2014

Virginia Tech - College of Engineering Transfer Credit Request Form - EDUCATION / STUDY ABROAD

Courses must be pre-approved by the College of Engineering Academic Dean's Office/212 Hancock Hall.

Policies Governing Transfer Credit to Virginia Tech:

1. Courses must be taken through either a study abroad program offered by an accredited college or university in the U.S. or an institution recognized by the country's Ministry of Education.
2. Only courses in which the student earned a grade of "C" or better will transfer. Home study, correspondence and Pass/Fail courses will not transfer. Courses taken as credit-by-exam or as advanced standing at another school do not transfer.
3. Only credits earned transfer; grades do not transfer and do not figure into a student's Virginia Tech GPA computation.
4. Where credit hours given at the other school exceeds that for the equivalent Virginia Tech course, only the Virginia Tech credit hours will be granted.
5. A course passed at Virginia Tech takes priority over an equivalent transfer course, regardless of when the transfer course is taken or the grade earned. Courses that duplicate previously studied material will not transfer.
6. A minimum of 1/4 of the credit for the degree must be earned at Virginia Tech.
7. Of the last 45 semester hours before graduation, a maximum of 18 semester hours may be transfer hours.
8. Courses taken elsewhere during periods of academic suspension will not transfer to Virginia Tech.

Completing the Transfer Credit Request Form:

1. Choose a school and courses. Check with the transfer school to ensure the courses you want to take will be offered during your term(s) of attendance. Contact the Study Abroad Advisor at rdw@vt.edu for a list of schools offering engineering programs.
2. If the institution you wish to attend requires a letter of good standing from Virginia Tech, you may request this certification by filling out a form in the Registrar's office, 250 Student Services Building.
3. Meet with academic advisor to discuss taking courses elsewhere and have the advisor or approved departmental representative sign this form.
4. Go to Education/Study Abroad Office (International Affairs – 526 Prices Fork Rd. Room 131) to complete appropriate paperwork and pay fees, if any. Have representative from Study Abroad Office sign this form.
5. For each class you request to take elsewhere you must obtain a detailed syllabus (in English) from the institution. Attach syllabi for each class to this form, and return to 100-F2 Randolph Hall or submit to rdw@vt.edu. Upon completion of the course(s), request that an official transcript (English translated copy) be sent to: Virginia Tech, University Registrar, 250 Student Services Building (0134), Blacksburg, VA 24061. If you have not submitted a transcript showing completion of the course(s) by one calendar year after completing the course(s), you forfeit transfer credit for the course(s).
6. This authorization is based on information you provide and is subject to change if the information changes. Once transfer credit is awarded, students must confirm that it is consistent with the decision reflected on this form. If there are inconsistencies please contact your Academic Dean's office in 212 Hancock Hall. No changes will be made to the transfer credit one year after completion of the transfer course(s).
7. There are many details to the study abroad process. Please allow a minimum of 3 months for final approval. You should begin this process at least 6 months prior to your departure date.
8. Student may submit up to two forms (eight courses) per term, maximum of two institutions, for consideration.

Student's Initials: _____ Student ID#: _____ Date: _____

Major: _____ Current # of Transfer Credits: _____ Local Phone #: _____ VT Email: _____@vt.edu

Name and country of institution you will be attending: **Shanghai Jiao Tong University, China (Shanghai Jiao Tong University - University of Michigan - Joint Institute)**

Is this a study abroad that is administered through a United States college or university? (will transcript come from a U.S. school?) no _____ yes, please specify: _____

Semester(s) you will be attending this institution: ___ Fall ___ Spring Summer Year: **2016**

Other Institution				VT Equivalent					
Dept	Course #	Course Title	#Cr Hrs	Dept	Course #	Course Title	#Cr Hrs	Office use Approved	Place On TED
SJTU-JI	Vz102	Introduction to Chinese Culture	2	N/A	N/A	AREA 2	2		
SJTU-JI	Vz104	Introduction to Chinese Language	2	FL	1XXX	Foreign Language Elective	2		
SJTU-JI	Vm235	Thermodynamics	3	ME	3124	Thermodynamics	3		
SJTU-JI	Vm335	Heat Transfer	3	ME	3304	Heat & Mass Transfer	3		

SIGNATURE NOT REQUIRED

STUDENT SIGNATURE
Student signature above affirms that the student understands transfer policies and knows if/how this will impact degree requirements.

ADVISOR/DEPT. REPRESENTATIVE
Dept. signature above affirms that student has discussed his/her plan with academic advisor but does not guarantee transfer credit approval.

EDUCATION/STUDY ABROAD OFFICE SIGNATURE
Signature above affirms that the student has notified the Education Abroad Credit Office of their plans and the Institution meets Policy #1 requirements above.

Program Details:

ABOUT THIS PROGRAM:

The University of Michigan (UM) and Shanghai Jiao Tong University (SJTU) and operate the Joint Institute (UM-SJTU-JI). This is a year-round operation for UM and SJTU students. During the summer, the institute offers a good selection of courses targeting electrical and mechanical engineering students from the University of Michigan based on the UM BSEE and BSME degree programs. The former Executive Dean of the Joint Institute, Dr. Robert Parker, is today the Department Head of Mechanical Engineering at Virginia Tech.

TRAVEL DATES:

You are responsible for the cost and purchase of your own airline ticket. You will meet the other VT BSME participants well ahead of time for an orientation session in Blacksburg, and you are encouraged to order your tickets together so that you can travel together. This will simplify the logistics for UM-SJTU-JI staff that will transport you to and from the airport in Shanghai.

You will depart the US on **Thursday, May 12, 2016** (at the latest) so that you arrive in the late afternoon on Friday, May 13, 2016 in Shanghai at Pudong airport (PVG). It is preferred that you arrive earlier, even as early as on May 11, 2016.

On your return, you will depart SJTU on **Sunday, August 14, 2016**.

PROGRAM COSTS:

You will not pay Virginia Tech tuition or fees while at SJTU (though emergency medical insurance will be required). Instead you will pay UM-SJTU-JI tuition, fees, and housing directly to SJTU; payment deadline by bank transfer is May 1, 2014. You will pay for food as you go along.

UM-SJTU-JI tuition:	RMB 2,500 per semester credit hour -- approximately US\$ 386 per semester credit hour
UM-SJTU-JI service fee:	RMB 4,000 -- approximately US\$ 618
Double dorm room:	RMB 25 / night -- approximately US\$ 3.86 / night
Food:	RMB 35 / day – approximately US\$ 5.40 / day

The UM-SJTU-JI service fee covers all the culture enrichment activities, 3 trips, welcoming parties, dinner gatherings, etc. The fee also includes a Shanghai transportation card and a SJTU campus ID card, with initial deposits of 30 and 50 RMB, respectively.

All Virginia Tech (and University of Michigan) students are housed in the UM-SJTU-JI dorms, which are doubles.

TRANSFER CREDIT:

The transfer of course credits is a three-step process:

1. You must file a VT College of Engineering Transfer Credit Request form with Mr. Ryan Wagoner <rdw@vt.edu> in 100-F2 Randolph Hall before you depart the US. Page 3 has a partially completed form that you can use if you are taking the course selection shown on page 2. If you have making a different course selection at SJTU, then you must complete the online version of this form (<http://www.eng.vt.edu/students/Transferring-credits>) and work with Ryan to document your desired SJTU courses and get them approved for transfer to Virginia Tech.
2. Next, you need to take the SJTU course for a grade, and you need to earn a “C” or better grade in that course.
3. Finally, you need to request that SJTU send an English language transcript directly to the Virginia Tech Registrar.

You should note that Virginia Tech only transfers course credits. Virginia Tech does not transfer course grades. Hence, the grades that you receive at SJTU will not impact your Virginia Tech grade point average (GPA).

MISCELLANEOUS:

- You are expected to bring your laptop computer. Do not bring classified, export-restricted, or illegal software or information. This includes content of political, violent, obscene, or sexual nature, or that promotes the use of illicit drugs. There are computers around, but most students prefer to bring their own.
- VISA credit cards are widely accepted. A VISA ATM card is useful for getting RMB cash. Check with your US bank to determine exchange rates and fees. You will need RMB cash for various local transactions, including the purchase of textbooks at the UM-SJTU-JI bookstore.

PASSPORT:

You will need a passport that is valid through March 1, 2017. If you do not have such a passport, then it is probably too late to order one in time for participating in this program: Even if applying for “Expedited Service,” which costs US\$60 extra plus the cost of overnight shipping both ways, it will take about 3 weeks for you to receive your new passport.

APPLICATION PROCESS:

- STEP 1:** **Send an e-mail by 4:00PM, Tuesday, March 22, 2016** to Heather Whedbee <heathaw@vt.edu> requesting that you be nominated for participation in this program. To qualify, you need to be on schedule to have completed your VT BSME sophomore year curriculum with a 3.0 GPA by the end of the Spring 2016 semester.
- STEP 2:** You will then receive an e-mail from Shanghai Jiao Tong University with a link to your online application. You must then **complete this online application and upload your supporting documents by the end of Thursday, March 31, 2016:**
1. Copy of your passport ID page (must be valid through March 1, 2017)
 2. Letter of Recommendation from Virginia Tech (provided by Dr. Jan Helge Bøhn)
 3. Your resume (one-page version)
 4. Your official Virginia Tech transcript **– order promptly using <http://www.hokiespa.vt.edu>**
 5. Passport-style photograph
- STEP 3:** You will receive your e-mail notification of admission one or two weeks later.
- STEP 4:** Your admission and visa documents will arrive at Virginia Tech around April 20, 2016. You will need to bring this paperwork to the Chinese Embassy visa office in Washington, DC to apply for your student visa.

Filling in the online application form:

- Type your entries on the form. The only handwriting should be your signature.
- Example of “Highest Academic Qualification”: *3rd year university student*
- E-mail address: List your Virginia Tech e-mail address (no alias)
- School & Major at SJTU: *School: Joint Institute (JI), Major: Mechanical Engineering (ME)*
- Duration at SJTU: *2016-05-11 to 2014-08-14*
- Residence Hall: *Double Room at the JI dorms*
- Emergency contact in China: Viva Du, TEL: +86-139-1745-6823 (mobile)
- Remember that dates in China are written in the order: YEAR-MONTH-DAY

QUESTIONS:

Viva Du
International Programs and Admissions
University of Michigan – Shanghai Jiao Tong University Joint Institute
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