TUD→VT Dual BSME degree program

This course selection assumes that the student has completed the first two years of the standard TUD BSME degree program, and it is particular to the 2016-2017 cohort and onwards:

Fall 2016 semester at Virginia Tech (18 credits)

1.	ENGL 1105	Freshman English I	3 credits	
2.	ME 4006	Mechanical Engineering Laboratory II	3 credits	TUD-TE 6CP
3.	ME 4015	Engineering Design and Project I	3 credits	Senior Capstone
4.	ME 4124	Fluid Machinery – Heat Transfer Design	3 credits	*OK by Prof. Tafti*, TUD-TE 6CP
5.	ME 4504	Dynamic Systems – Controls	3 credits	
6.	*AREA 3 – Society and Human Behavior*		3 credits	

Spring 2017 semester at Virginia Tech (19 credits)

1.	ENGL 1106	Freshman English II	3 credits	
2.	ME 3304	Heat and Mass Transfer	3 credits	
3.	ME 4634	Introduction to CAD/CAM	3 credits	VT-TE3
4.	ME 4016	Engineering Design and Project II	3 credits	Senior Capstone
5.	AOE 4404	Applied Numerical Methods	3 credits	VT-TE4
	or			
	AOE 4024	Introduction to Finite Elements		
6.	*Technical Elective (see TUD BSME at VT list)*		3 credits	VT-TE5, TUD-TE 6CP
7.	*AREA 6 – Creativity and Aesthetic Experience*		1 credit	

Summer I 2017 session at Virginia Tech (7 credits)

1.	ME 4994	Undergraduate Research	1 credit	TUD-TE 2CP
2.	*AREA 2 – Ideas, Cultural Traditions, and Values*		3 credits	
3.	*AREA 7 – Critical Issues in a Global Context*		3 credits	

Summer II 2017 session at Virginia Tech (6 credits)

1.	*AREA 2 – Ideas, Cultural Traditions, and Values*	3 credits	
2.	*AREA 3 – Society and Human Behavior*	3 credits	

Virginia Tech: U.S. History requirement MORATORIUM
There is presently a moratorium on the U.S. History requirement. This administrative decision by the University Provost is a result of resource priorities. Students with a start date of Fall 2001 through Fall 2008 will not be required to fulfill the published graduation requirements for U.S. History. In 2007, the University will revisit this requirement to determine if there are sufficient resources available to lift the moratorium.

Virginia Tech: Area 2, 3, 6, 7 electives
These courses may be taken in any order and during any semester. However, recently, these courses have been filled in early-July for the Fall semester. Every effort should therefore be made to finalize this course selection by June.

SPECIAL NOTES:

- Students that are on track to graduate in August will be allowed to participate in the May graduation ceremonies.
- ENGL 1105-1106 must be taken during the first two semesters at VT (i.e., during the Fall and Spring semesters). This is to ensure that the student may transfer from General Engineering into Mechanical Engineering no later than shortly following their Spring semester.

Courses that must be completed at TUD prior to arriving at VT:

General Chemistry Lab ..... 2 CP ECTS

Einführung in den Maschinenbau 2
Informations- und Kommunikationstechnologie im Maschinenbau 4
Mathematik für den Maschinenbau I 8
Technische Mechanik I (Statik) 6
Technologie der Fertigungsverfahren 6
Werkstoffkunde I 6

Einführung in die Elektrotechnik 6
Mathematik für den Maschinenbau II 8
Rechnergestütztes Konstruieren 4
Technische Mechanik II (Elastostatik) 6
Werkstoffkunde II 6

Chemie für den Maschinenbau 4
Maschinenelemente und Mechatronik I 8
Mathematik für den Maschinenbau III 4
Physik für den Maschinenbau 4
Technische Mechanik III (Dynamik) 6
Technische Thermodynamik I 6

Maschinenelemente und Mechatronik II 8
Messtechniktechnik, Sensorik und Statistik 6
Numerische Mathematik 4
Physikalisches Grundpraktikum für den Maschinenbau 2
Technische Strömungslehre 6
Technische Thermodynamik II 2

Transfer credits from VT to TUD:

Einführung in wissenschaftliches Arbeiten und Schreiben ..... 2 CP ECTS
AREA 2 or 3 course ..... 3 semester credit hours

Ingenieurinnen und Ingenieure in der Gesellschaft ..... 6 CP ECTS
AREA 2 or 3 course ..... 3 semester credit hours

Product Design Project ..... 4 CP ECTS
ME 4634 Introduction to Computer Aided Design and Manufacturing.... 3 semester credit hours

Systemtheorie und Regelungstechnik ..... 6 CP ECTS
ME 4504 Dynamic Systems – Controls ..... 3 semester credit hours

Wärme- und Stoffübertragung ..... 4 CP ECTS
ME 3304 Heat and Mass Transfer ..... 3 semester credit hours

Numerische Berechnungsverfahren ..... 4 CP ECTS
AOE 4024 or AOE 4404 ..... 3 semester credit hours

Wahlpflichtbereich ..... 20 CP ECTS
ME 4006 Mechanical Engineering Laboratory II..... 3 semester credit hours
ME 4124 Fluid Machinery – Heat Transfer Design ..... 3 semester credit hours
TUD BSME technical elective at VT (special list) ..... 3 semester credit hours
ME 4994 Undergraduate Research ..... 1 semester credit hour

Bachelor-Thesis ..... 12 CP ECTS
ME 4015 Engineering Design & Project I ..... 3 semester credit hours
ME 4016 Engineering Design & Project II ..... 3 semester credit hours