

Gustavus Adolphus College

St. Peter, Minnesota

Transfer Plan to

Institute of Technology

University of Minnesota

9/7/08

These are the "technical" courses that are suggested students complete before applying for transfer. Applications may be made before completing all the courses. If not Dual Degree, see:

www.admissions.tc.umn.edu/cle

for information concerning liberal education course requirements.

Dual Degree students will take the courses suggested below plus additional courses required for their major. All liberal arts courses will transfer for credit; the liberal arts requirement at the U of M is satisfied by the requirements at Gustavus Adolphus College.

Engineering Majors

Aerospace Engineering

CHE 107(1021, 1022)

MCS 121(1271), 122(1272), 222(2263) (course in C **or** C++ **or** FORTRAN **or** JAVA)

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab), 260(in lieu of 2503), 300(AEM 2012)

Biomedical Engineering

BIO 101(in lieu of BIOL 1009), 102(Tr.), 201(Tr.), 202(Tr.), 373(in lieu of BMEN 2501)

CHE 107(1021, 1022), 141(2301), 371(3501 in lieu of BMEN 2101)

MCS 121(1271), 122(1272), 142(Stat 3021), 222(2263) {(course in C **or** C++ **or** FORTRAN **or** JAVA) in lieu of BMEN 2401}

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab)

Bioproducts and Biosystems Engineering

BIO 101(*in lieu of BIOL 1009*)

CHE 107(1021, 1022)

MCS 121(1271), 122(1272), 142(*Stat 3021*), 222(2263)

PHY 200(1301 LEC), 201(1301 Lab), 220(*Tr.*), 221(*Tr.*), 230(*Math 2243*), 240(1302 LEC), 241(1302 Lab)

Courses for a particular emphasis:

Bioproducts Engineering Emphasis

CHE 141(2301), 251(2302, 2311)*

Bioprocessing & Food Engineering Emphasis

CHE 141(2301), 251(2302, 2311)*

MCS 142(*Stat 3021*)

Environmental & Ecological Engineering Emphasis

MCS 142(*Stat 3021*)

* Indicates classes that might be counted at technical electives.

Chemical Engineering

CHE 107(1021, 1022), 141(2301), 251(2302, 2311), 270(*perhaps in lieu of 2121*), 371(3501), 372(3502, 4511)

MCS 121(1271), 122(1272), 222(2263)

PHY 200(1301 LEC), 201(1301 Lab), 220(*Tr.*), 221(*Tr.*), 230(*Math 2243*), 240(1302 LEC), 241(1302 Lab)

CHEN 2001 - Material and Energy Balances is now a fall semester class (no longer offered in the summer) and it is a prerequisite class for the junior sequence.

- If a student transfers to the U of M after the freshman year, they will take the same classes as sophomores in Chemical Engineering and the student should graduate in three years.

- A student transferring after two years will take Physical Chemistry, CHEN 2001, and perhaps a few other classes. It will take the student three years to graduate.

- A student who competes three years at Gustavus Adolphus will take CHEN 2001, MATS 3011 and a few other classes. It will take the student three years to graduate.

Civil Engineering

CHE 107(1021, 1022)

MCS 121(1271), 122(1272), 142(*Stat 3021*), 222(2263)

PHY 200(1301 LEC), 201(1301 Lab), 220(*Tr.*), 221(*Tr.*), 230(*Math 2243*), 240(1302 LEC), 241(1302 Lab), 300(*AEM 2012*)

Computer Engineering

MCS 121(1271), 122(1272), 177(CSCI 1901), 178(CSCI 1902), 222(2263), 236(CSCI 2011), 375(CSCI 4041)

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab), 270(EE 2001), 271(EE 2002)

Electrical Engineering

CHE 107(1021, 1022)

MCS 121(1271), 122(1272), 222(2263) (course in C **or** C++ in lieu of EE 1301)

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab), 260(2303), 270(EE 2001), 271(EE 2002)

Geological Engineering

CHE 107(1021, 1022)

GE 111(1001), 250(4501), 271(2301), 372(2302)

MCS 121(1271), 122(1272), 142(Stat 3021), 222(2263)

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab), 300(AEM 2012)

Materials Science Engineering

CHE 107(1021, 1022), 141(2301)

MCS 121(1271), 122(1272), 222(2263)

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab), 260(2303)

Mechanical Engineering

General Biology strongly recommended

CHE 107(1021, 1022)

MCS 121(1271), 122(1272), 222(2263) (course in C **or** C++)

PHY 200(1301 LEC), 201(1301 Lab), 220(Tr.), 221(Tr.), 230(Math 2243), 240(1302 LEC), 241(1302 Lab), 300(AEM 2012)