## BACHELOR OF SCIENCE IN ENGINEERINGAND MATHEMATICS With a concentration in Industrial & Systems Engineering Catalogue Year 2019 - 2020 Student Name **REQUIRED ENGINEERING (EGR) COURSES: GENERAL EDUCATION CORE** EGR 1100 (3) EGR 3140 (3) EGR 1200 (3) \_\_\_\_\_\_ **INTERDISCIPLINARY STUDIES (1-5 SH)** EGR 3200 (3) EGR 3310 (3) MUJ 1100 (2) EGR 2300 (3) EGR 3320 (3) MUJ 2200 MUJ 3300 EGR 3100 (3) # EGR 4900 (3) IDS 2100 INDUSTRIAL & SYSTEMS ENGINEERING (ISE) CONCENTRATION COURSES: **COMPUTER COMPETENCY (0-3 SH)** ISE 3200 (3) ISE 4200 ISE 3300 (3) ISE 4310 CSC 1000 \*\*\* (0-3)(3) (Must be satisfied before completing 60 s.h.) ISE 3500 (3) ISE 4320 **REQUIRED MATHEMATICS COURSES: COMMUNICATIONS (6-12 SH)\*** MAT 2310 (3) \_\_\_\_\_ English Placement Score (transfer students) (3) (3) (3) (3) (0-3) (0-3) MAT 3120 (3) MAT 3160 (3) MAT 4110 (3) MAT 4140 (3) MAT 4800 (3) MAT 3120 (3) MAT 3160 (3) MAT 2320 (3) \_\_\_\_\_ ENG 1000 (if required) ENG 1010 MAT 2600 (3) ENG 1020 or 1040 MAT 3050 (3) \_\_\_\_\_\_ MAT 3090 (3) \_\_\_\_\_ ENG 2070 (if required) ACL 1500,1510, 3540 or 3600\*\*\* REQUIRED SCIENCE COURSES: **GLOBAL PERSPECTIVE ELECTIVE (3 SH)** CHE 1510 (4) \_\_\_\_\_ (3) Choose one approved course\*\* PHY 2510 (4) PHY 2520 (4) **HUMANITIES (9 SH)** Literature (no ENG 3610 or 3620)\_\_\_\_\_ (3) History (3) Religion (3) REQUIRED COMPUTER SCIENCE COURSE: Select a min. of 3 sh from: CSC 2010 (3) CSC 2010 (3) \_\_\_\_\_ REQUIRED ECONOMICS COURSE (select 1): **FINE ARTS APPRECIATION (3 SH)** ECO 2610 (3) \_\_\_\_\_ ECO 2620 (3) ARH 1510, 2530, 2540, MUS 1510, 1520, 1600, 1610, THE 1620 1630 or 3 s.h. applied MUS/THE ensemble (3) OTHER MAJOR COURSE REQUIREMENTS: ENG 3210 (3) **MATHEMATICS (3-6 SH)** MAT 1030 (if required) MAT 1050/1100 (or higher, except 1060 or 2060) NATURAL SCIENCES (6-8 SH) Students will not receive General Education Credit for both SCI1410 and GLY 1600; SCI 1420 and BIO 1530; or SCI 1430 and CHE 1510 # Writing enrichment course \_\_\_(3/4) Additional Course Requirements to Meet 124 sh (if needed) (3/4) Electives SOCIAL SCIENCE (3 SH) - ECO, PSC, PSY or SOC \_\_\_\_\_(3) \_\_\_\_\_ **GRADUATION REQUIREMENTS** 1. Minimum 124 semester hours. WELLNESS (2-3 SH) 2. 31 semester hours in residency to include 50% of the major/minor WEL 1010 and and 24 semester hours at the 3000/4000 level. WEL 2010 or 2350 or 3. GPA of 2.000 or higher required in (A) overall, (B) residency, WEL 2180 or PXS 2900 (C) major, (D) minor, and (E) concentration. 4. Satisfactory completion of the English Placement Examination LIBERAL ARTS ELECTIVE (3 SH) or ENG 2070 is a graduation requirement for all transfer students. 5. Errors contained on this checksheet do not release the student Choose one approved course LIBRARY COMPETENCY COMPLETED from meeting the graduation requirements as stated in the

Academic Catalogue.

(Must be satisfied before completing 60 s.h.)

**TOTAL 36-53 SH** 

Some General Education core requirements may be filled in the major. Consult Academic Catalogue and Advisor for specific options.

\*\*\*Students who pass a competency test (administered on a pass/fail basis at no charge) for ACL 1510 and/or CSC 1000 will not be required to take the class for which a test is passed. Passing a competency test will not give a student a grade or the equivalent semester hours for taking the respective course(s), but will satisfy the respective General Education ACL and/or CSC requirement(s). Students are permitted one single attempt to pass a CSC 1000 and/or ACL 1510 competency test.

\*\*The Global Perspective Elective must be a course outside the major, minor or concentration. It can be met my taking a minimum of 3 s.h. from the following:

Foreign Language

Study Abroad (IDS 3550/4550)

International Internship

ACC 4620 International Accounting (Study Abroad)

ACL 3600 Exploring Cross-Cultural Communication

ARH 2530 Survey of Art History I

BUS 3310 Fundamentals of International Business

BUS 3330 International Business Experience (Study Abroad)

BUS/LAW 4850 Special Topics: International Law (Study Abroad)

ECO 4200 Comparative Economic Systems

ECO 4520 International Trade and Finance

ECO 4650 Economic Growth and Development

ENG 2110 English Literature I

ENG 2120 English Literature II

ENG 2310 World Literature I

ENG 2320 World Literature II

ENG 3420 Women's Literature

ENG 3440 American Diversity

ENG 3710 Chaucer

ENG 3730 Literature of Medieval England

ENG 3740 Shakespeare

ENG 3920 19th Century British Literature

ENG 4020 Modernist Literature

ENG 4030 Contemporary Literature

ENG 4850 Special Topics: Legal Dickens

ENM/LAW 2510 Caribbean Natural Resources and Law (Study Abroad)

ENP 3300 International Entrepreneurship

GEO 2520 Regional Geography

HIS 1030 World History I

HIS 1040 World History II

HIS 2150 Barbarian Invasions

HIS 2170 Race, Ethnicity, and Global Perspective

HIS 2200 World War II

HIS 3010 Modern Asian History

HIS 3050 Islam and the Islamic World

HIS 3250 Modern History

HIS 3310 Topics in Latin American History

HIS 3700 Contemporary World History

HIS 3850 Special Topics: Medieval Britain

HIS 4110 Modern Russia

LAN 3200 Introduction to Linguistics

LSS 2850 Special Topics in Leadership: Ultimate Journey

MKT 4100 Global Marketing

PSC 2270 Comparative Politics

PSC 3510 International Relations

PSC 4010 European Politics

PSC 4020 Middle East Politics

PSC 4040 Politics in East Asia (Study Abroad)

PSC 4050 Latin American Politics (Study Abroad)

PSC 4400 International Organizations

PSC 4510 International Political Economy

REL 1030 Introduction to Religion

REL 1040 Introduction to Biblical Literature\*

REL 1070 Religion and Film

**REL 1500 Eastern Religious Traditions** 

**REL 1510 Western Religious Traditions** 

REL 2010 Survey of Hebrew Bible

REL 2020 Survey of the New Testament

REL 3010 The Hebrew Prophets\*

REL 3020 Jesus and the Gospels\*

REL 3520 Modern Religious Thought

REL 4040 Myth and Culture

**REL 4050 Early Christianity** 

**REL 4060 Reformation Europe** 

SOC 2530 Global Social Problems

SOC 2560 Cultural Anthropology

THE 3110 Theatre History and Literature I

THE 3120 Theatre History and Literature II

\*Course no longer offered

## Liberal Arts Electives:

- 1. The Liberal Arts Elective includes courses in the following areas designated as Liberal Arts in the catalogue: Fine Arts, Humanities (ENG, HIS, GEO, PHI, REL, or WRI), Mathematics (MAT), Computer Science (CSC), Natural Science (BIO, CHE, GLY, PHY, or SCI), Foreign Language (FRE, GER, GRK, SPA, or LAN), Social Science (ECO, PSC, PSY, or SOC), and WST 2000. Only the following courses are Liberal Arts Electives for Fine Arts: ARH 1510, 2530, 2540, 3530, 3540; MUS 1510, 1520, 1600, 1610; THE 1620, 1630, 3620, 3650, or 3 hours in applied music/ensemble or theatre ensemble.
- 2. The Liberal Arts Elective may not be fulfilled by any course with a prefix within the department sponsoring a declared major, minor, or concentration of the student. For example, a computer science or computer information technology major must fulfill the Liberal Arts Elective requirement by taking a course with a prefix other than CSC, and an English major must fulfill the Liberal Arts Elective requirement by taking a course with a prefix other than ENG or WRI.
- 3. Courses in areas listed above that emphasize professional preparation and pedagogy cannot be used to fulfill the Liberal Arts Elective. The following courses are not Liberal Arts Electives: ENG 2600, ENG 3600, ENG 3620, LAN 2600, LAN 3300, MAT 1060, and MAT 2060.
- 4. Developmental courses cannot be used to fulfill the Liberal Arts Elective. The following courses are not Liberal Arts Electives: ENG 1000 and 2070; ESL 0910, 0920, 0960, 0970, 1210, 1220, and 2070; and MAT 1030.
- 5. Courses that fulfill the General Education curriculum outside the Liberal Arts Elective may not be used to fulfill the Liberal Arts Elective. The following courses are not Liberal Arts Electives: CSC 1000, ENG 1010, ENG 1020, and ENG 1040.
- 6. Special Topics courses may not be used to fulfill the Liberal Arts Elective.
- 7. Courses considered to be capstone courses by any program may not be used to fulfill the Liberal Arts Elective.

Errors contained on this checksheet do not release the student from meeting the graduation requirements as stated in the Academic Catalogue.

Page 2 of 2