ENVIRONMENTAL ENGINEERING MAJOR<br>Program Tracking Sheet<br>Effective for students entering AY 2020-2021

| Name: | Class Year:: |
| :--- | :--- |
| Advisor: | 2nd $^{\text {nd }}$ Major: |

NOTES: Minimum total academic credit $=15$ units
Residency Req.: Min. of 8 units must be completed at WPI
HUMANITIES AND ARTS ( $6 / 3$ units)
All 5 HUA courses must be completed before beginning the Inquiry Seminar or Practicum.

## Depth Component

Students must complete at least three thematically-related courses prior to the culminating Inquiry Seminar or Practicum in the same thematic area. At least one of the three courses should be at the 2000-level or above.

|  | Course | Term | Grade | Units |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  | $1 / 3$ |
| 2 |  |  |  | $1 / 3$ |
| 3 |  |  |  | $1 / 3$ |
| 4 | HU 3900 or HU 3910 |  |  | $1 / 3$ |

## Breadth Component

Students must take at least one course outside the grouping in which they complete their depth component. To identify breadth, courses are grouped in the following manner.
i. art/art history, drama/theatre, and music (AR, EN/TH, MU);
ii. foreign languages ( $\mathrm{AB}, \mathrm{CN}, \mathrm{EN}, \mathrm{GN}, \mathrm{SP}$ );
iii. literature and writing rhetoric (EN, WR, RH);
iv. history and international studies (HI, HU, INTL);
v. philosophy and religion (PY, RE).

Exception: May take all six courses in a foreign language


PHYSICAL EDUCATION (4 PE classes = 1/3 unit)

| 7 |  |  |  | $1 / 12$ |
| :---: | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | $1 / 12$ |  |
|  |  |  |  | $1 / 12$ |

SOCIAL SCIENCE (2/3 unit) ECON, ENV, GOV, PSY, SD, SOC, SS, STS, DEV and ID2050

| 8 |  |  |  | $1 / 3$ |
| :---: | :---: | :---: | :---: | :---: |
| 9 |  |  |  | $1 / 3$ | | THE INTERACTIVE QUALIFYING PROJECT (1 unit) |  |  |  |
| :---: | :---: | :---: | :---: |
| 10 |  |  |  |
| 11 |  |  |  |
| 12 |  |  | $1 / 3$ |

MATHEMATICS AND BASIC SCIENCE (4 units)
MATHEMATICS (6/3 units) Courses with prefix: MA
Must include differential and integral calculus, differential equations, statistics

| 13 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 14 |  |  |  | $1 / 3$ |
| 15 |  |  |  | $1 / 3$ |
| 16 |  |  |  | $1 / 3$ |
| 17 |  |  |  | $1 / 3$ |
| 18 |  |  |  | $1 / 3$ |

BASIC SCIENCE ( $6 / 3$ units) Courses with prefix: BB, CH, GE, PH
Must include $1 / 3$ unit of $B B, 3 / 3$ unit chemistry $C H, 1 / 3$ unit earth science (GE 2341 recommended), $1 / 3$ unit PH (calculus based).

| 19 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 20 |  |  |  | $1 / 3$ |
| 21 |  |  |  | $1 / 3$ |
| 22 |  |  |  |  |
| 23 |  |  | $1 / 3$ |  |
| 24 |  |  |  | $1 / 3$ |

Minimum of $1 / 3$ unit in $B B$ and $1 / 3$ unit in $C H$.
Advanced BB courses: 2000-level or higher.
Advanced CH courses: CH 1040 and CH courses at the 2000-level or higher.
Courses may not be double-counted toward the basic science requirement

| 25 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 26 |  |  |  | $1 / 3$ |
| 27 |  |  |  | $1 / 3$ |

ENGINEERING SCIENCE AND DESIGN (6 units) (Note 3) THERMOFLUIDS (2/3 unit)
Must include $1 / 3$ unit in fluid mechanics (ES 3004 recommended) and $1 / 3$ unit in thermodynamics (ES 3001, CHE 2013, or CH 3510)

| 28 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 29 |  |  |  | $1 / 3$ |

MECHANICS AND MATERIALS (2/3 unit)
CE 2000 or ES 2501; CE 2001 or ES 2502; ES 2001; ES 2503

| 30 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 31 |  |  |  | $1 / 3$ |

CORE ENVIRONMENTAL ENGINEERING (3/3 unit)
CHE 2011, CE 3059, CE 3062, CHE 3201

| 32 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 33 |  |  |  | $1 / 3$ |
| 34 |  |  |  | $1 / 3$ |

EVE ELECTIVES: WATER QUALITY AND RESOURCES (3/3 units)
CE 3060, CE 3061, CE 4060, CE 4061

| 35 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 36 |  |  |  | $1 / 3$ |
| 37 |  |  |  | $1 / 3$ |

EVE ELECTIVES: AIR \& LAND ENVIRONMENTAL SYSTEMS (2/3 units) CE 3041, CE 3074, CE 4600, CE/CHE 4063, CHE 4401

| 38 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 39 |  |  |  | $1 / 3$ |

EVE ELECTIVES: ENVIRONMENTAL MANAGEMENT (1/3 unit) CE 3020, CE 3070, CE 4071

| 40 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- | | MAJOR QUALIFYING PROJECT (3/3 unit) |  | $1 / 3$ |  |
| :--- | :--- | :--- | :--- |
| 41 |  |  |  |
| 42 |  |  |  |
| 43 |  |  |  |

FREE ELECTIVES IN ENGINEERING SCIENCE AND DESIGN (2/3 unit)
Engineering (AE, AREN, BME, CHE, CE, ECE, ES, FPE, ME, RBE) at the 2000-level or above

| 44 |  |  |  | $1 / 3$ |
| :--- | :--- | :--- | :--- | :--- |
| 45 |  |  |  | $1 / 3$ |

Engineering Science and Design Notes: Curriculum must include:
$-1 / 3$ unit of environmental health issues (CE 3059, CE 3060, CE 3061, or approved experience through IQP, ISP, etc.).
$-2 / 3$ units with laboratory experimentation. Must include either CE 4060 or CHE 4401.
The remaining $1 / 3$ unit may be CE 4060, CHE 4401, laboratory courses in CH (CH
2640 or CH 2650, which would satisfy Advanced Science course requirements), CE 3026, or CE 2020.
$-1 / 3$ unit major design experience through the MQP, or other approved design experience in a course such as CHE 4403 or ME 4429.

