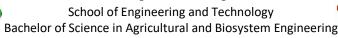
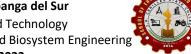
JH CERILLES STATE COLLEGE







New Curriculum 2022

FIRST YEAR

FIRST SEMESTER SECOND SEMSTER

| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req |
|--------|----------|--|-----|-----|-------|---------------|
| | GEC 101 | Understanding the Self | 3 | 0 | 3 | None |
| | GEC 104 | Mathematics in the Modern World | 3 | 0 | 3 | None |
| | GEC 203 | Ethics | 3 | 0 | 3 | None |
| | BEM 111 | Calculus 1 Differential Calculus | 3 | 0 | 3 | STEM TRACK |
| | NS 111 | Chemistry for Engineers | 3 | 1 | 4 | STEM TRACK |
| | ABE 111 | Intro to Agricultural & Biosystems Engineering | 0 | 1 | 1 | None |
| | GEE 111 | Environmental Science | 3 | 0 | 3 | None |
| | PATH FIT | Movement Competency Training | 2 | 0 | 2 | None |
| | NSTP 1 | National Training Service Program | 3 | 0 | 3 | None |
| | IC | JHCSC Civic Course | 1 | 0 | 1 | None |
| | TOTAL | | 24 | 2 | 26 | |

| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req/ Co-req |
|--------|---------------|--|-----|-----|-------|------------------------------|
| | | | | | | CO-1EH |
| | GEC 105 | Purposive Communication | 3 | 0 | 3 | None |
| | GEE 103 | Science Technology and Society | 3 | 0 | 3 | None |
| | GEE 101 | Living in the IT Era | 3 | 0 | 3 | None |
| | GEE 102 | The Entrepreneurial Mind | 3 | 0 | 3 | None |
| | BEM 121 | Calculus 2 Integral Calculus | 3 | 0 | 3 | GEC 104 BEM100, BEM111 |
| | PS121 | Physics for Engineers (Calculus Based) | 3 | 1 | 4 | None |
| | BES 121 | Engineering Drawing and Plans | 0 | 1 | 1 | None |
| | PATH FIT 2 | Exercises Physical Activity | 2 | 0 | 2 | PATH FIT 2 |
| | NSTP 1 | National Training Service Program | 3 | 0 | 3 | NSTP 1 |
| | | | | | | |
| | TOTAL | | 23 | 2 | 25 | |

SECOND YEAR

FIRST SEMESTER SECOND SEMESTER

| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req |
|--------|------------|---|-----|-----|-------|----------------------------------|
| | GEC 201 | The Contemporary World | 3 | 0 | 3 | None |
| | GEC 202 | Art Appreciation | 3 | 0 | 3 | None |
| | BEM 211 | Differential Equations | 3 | 0 | 3 | BEM121 |
| | BES 211 | Computed Aided Drafting | 1 | 1 | 2 | None |
| | BES 212 | Engineering Mechanics 1 (Statics of Rigid Bodies) | 3 | 0 | 3 | None |
| | BES 214 | Fundamentals of Surveying | 2 | 1 | 3 | BES121 |
| | BES 213 | Engineering Economics | 3 | 0 | 3 | 2 nd Year Standing |
| | AC 211 | Principle of Soil Science | 2 | 1 | 2 | None |
| | AC 210 | Principle of Soil Science | 2 | 1 | 3 | None |
| | Path-Fit 3 | Dance/Sports/R hythmic Activities | 2 | 0 | 2 | Path-Fit 3 |
| | TOTAL | | 23 | 4 | 27 | |

| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req/ | |
|--------|-----------|------------------------------|-----|-----|-------|-------------------|--|
| | | | | | | Co-req | |
| | GE Man | Life and Works of | | | | | |
| | 210 | Rizal | 3 | 0 | 3 | None | |
| | DEN 4 224 | Foreign spire Date | _ | 4 | 2 | CEC404 | |
| | BEM 221 | Engineering Data Analysis | 2 | 1 | 3 | GEC104, BEM100 | |
| | | Engineering | | | | PEINITOO | |
| | BES 222 | Mechanics II | 3 | 0 | 3 | BES212 | |
| | DL3 222 | Dynamics of Rigid | | | | DLJZIZ | |
| | | Bodies | | | | | |
| | BES 223 | Strength of | 2 | 1 | 3 | BES212 | |
| | | Materials | | | | | |
| | | | | | | | |
| | | Thermodynamics | | | | PS 121 | |
| | BES 222 | And heat Transfer | 4 | 1 | 5 | BEM 111 | |
| | BES 221 | 221 Fluid Mechanics 2 | | 1 | 3 | BES 212 | |
| | DL3 ZZI | Tidia Micerianies | 2 | _ | | DLJ ZIZ | |
| | | Materials and | | | | | |
| | | Processes for | | | | BES 212 | |
| | ABE 220 | Agricultural and | 2 | 1 | 3 | NS 111 | |
| | | Biosystem | | | | BES 121 | |
| | | Engineering | | | | | |
| | GEC 102 | Reading the Phil. | 3 | 0 | 3 | None | |
| | | History | | | | | |
| | Path-Fit | Outdoor | 2 | 0 | 2 | Path-Fit | |
| | 3 | Activities | | | | 3 | |
| | | | | | | | |
| | | | | | | | |
| | TOTAL | | 23 | 5 | 28 | | |

THIRD YEAR

SECOND SEMSTER FIRST SEMESTER

| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req | Gra | des | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req/ |
|--------|----------|-----------------------|-----|-----|-------|----------------------|--------------|-----|----------|-----------------------------|-----|-----|-------|----------|
| | | | | | | | | | | | | | | Co-req |
| | | | | | | | | | | Computer | | | | 3ed Year |
| | 255 200 | | | _ | _ | | | | 455.000 | Application in | | | _ | Standing |
| | BES 300 | Computer Programming | 2 | 1 | 3 | None | | | ABE 320 | agricultural and | 1 | 2 | 3 | (Comple |
| | | | | | | | | | | Biosystem | | | | ted BES |
| | AC 310 | Drive sinds of Animal | | | | | | | | Engineering | | | | 300) |
| | AC 310 | Principle of Animal | ١, | _ | 2 | Nana | | | ADE 224 | Taskasaasaasa | , | | 2 | DEC 242 |
| | | Science | 2 | 1 | 3 | None | | | ABE 321 | Technopreneur - ship 101 | 3 | 0 | 3 | BES 213 |
| | | Agricultural and | | | | | | | | | | | | ABE 310 |
| | | Biosystem Power | | | | BES 222 | | | | Agricultural and | | | | AC 210 |
| | ABE 310 | Engineering | 2 | 1 | 3 | BEM112 | | | ABE 322 | Biosystem Machinery | 2 | 1 | 3 | AC 223 |
| | | | | | | | | | | and Mechanization | | | | AC 224 |
| | | | | | | | | | | Agricultural and | | | | |
| | ABE 313 | Hydrometeology | 2 | 1 | 3 | BES 221 | | | ABE 312 | Biosystem Structures | 2 | 1 | 3 | ABE 311 |
| | | | | | | BEM222 | | | | Engineering | | | | |
| | | Properties of | | | | | | | | Agricultural and | | | | |
| | ABE 314 | agricultural and | | | | ABE 220 | | | ABE 323 | Biosystem | 2 | 1 | 3 | PS 121 |
| | | Biosystem Materials | 2 | 1 | 3 | BES 222 | | | | Electrification and | | | | BEM 211 |
| | | | | | | | | | | Control System | | | | |
| | | | | _ | _ | | | | ABE 324 | Irrigation and | _ | | _ | BES214, |
| | BES 311 | Engineering | 3 | 0 | 3 | 3 rd Year | | | | Drainage | 2 | 1 | 3 | ABE313 |
| | | Management | | | | standing | | | | Engineering | | | | AC210, |
| | | | | | | | ↓ | | | | | | | AC223 |
| | | | | | | | | | | Agricultural and | | | | ABE 314 |
| | | | | | | | | | ABE 325 | Biosystem Products | 2 | 1 | 3 | AC 223 |
| | | | | | | | | | | and Processing | | | | AC 224 |
| | TOTAL | | 13 | 5 | 18 | | ┨ ├─ | | TOTAL | Storage | 14 | 7 | 21 | |
| | TOTAL | | 13 | ر | 10 | | 1 | | TOTAL | | 14 | , | 21 | |

SUMMER

| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req |
|--------|----------|---------------------|-----|-----|-------|----------------------|
| | | Industry Immersion | | | | 3 rd Year |
| | IIP 300 | Program (240 hours) | 2 | 1 | 3 | Standing |

FOURTH YEAR

FIRST SEMESTER

| | | FIRST SEIVIESTER | | | | | SECOND SEIVIESTER | | | | | | | |
|--------|----------|---|-----|-----|-------|---|-------------------|------|----------|--|---|---|----|--------------------|
| Grades | Course # | DESCRIPTION | Lec | Lab | Units | Pre-req | Gra | ades | Course # | # DESCRIPTION Lec Lab Units Pr | | | | Pre-req/ |
| | | | | | | | | | | | | | | Co-req |
| | ABE 410 | Machine Design for Agricultural and Biosystem Production | 2 | 1 | 3 | ABE 322 ABE 314 | | | ABE 421 | Renewable Energy for Agricultural and Biosystem Application | 2 | 1 | 3 | ABE 311 |
| | ABE 412 | Plan and Livestock System and Environmental Control Engineering | 2 | 1 | 3 | ABE 312 AC 210 AC 223 AC 224 | | | ABE 422 | Agricultural and Biosystem Waste Management Engineering | 2 | 1 | 3 | ABE 314 |
| | ABE 413 | Aquaculture Engineering | 2 | 1 | 3 | ABE 324 | | | ABE 423 | Land and Water Conservation Engineering | 2 | 1 | 3 | ABE 324 |
| | ABE 414 | Food process Engineering | 2 | 1 | 3 | ABE 325 | | | ABE 424 | Design and management of Agricultural and Biosystem Processing | 2 | 1 | 3 | ABE 325 |
| | ABE 415 | Undergraduate Seminar and Field Tour | 2 | 0 | 2 | 4 th Year Standing | | | ABE 416 | ABE and Related laws, Specifications Contracts, and Ethics | 1 | 0 | 1 | ABE 111 GEC 203 |
| | Thesis 1 | Undergraduate Thesis in Agricultural and Biosystem Engineering I/Undergraduate Project in ABE 1 | 0 | 3 | 3 | 4 th Year Standing IIP 300 | | | Thesis 2 | Undergraduate Thesis in Agricultural and Biosystem Engineering II/Undergraduate Project in ABE 2 | 0 | 3 | 3 | Thesis 1 |
| | TOTAL | | 10 | 7 | 17 | | | | TOTAL | | 9 | 7 | 16 | |

| Grades | course ii | DESCRIPTION | 200 | 200 | O i i i i | Co-req |
|--------|-----------|--|-----|-----|-----------|--------------------|
| | ABE 421 | Renewable Energy for Agricultural and Biosystem Application | 2 | 1 | 3 | ABE 311 |
| | ABE 422 | Agricultural and Biosystem Waste Management Engineering | 2 | 1 | 3 | ABE 314 |
| | ABE 423 | Land and Water Conservation Engineering | 2 | 1 | 3 | ABE 324 |
| | ABE 424 | Design and management of Agricultural and Biosystem Processing | 2 | 1 | 3 | ABE 325 |
| | ABE 416 | ABE and Related laws, Specifications Contracts, and Ethics | 1 | 0 | 1 | ABE 111 GEC 203 |
| | Thesis 2 | Undergraduate Thesis in Agricultural and Biosystem Engineering II/Undergraduate Project in ABE 2 | 0 | 3 | 3 | Thesis 1 |
| | TOTAL | | 9 | 7 | 16 | |

SECOND SEMESTER