

HOLY ANGEL UNIVERSITY  
COLLEGE OF ENGINEERING AND ARCHITECTURE  
**BACHELOR OF SCIENCE IN AERONAUTICAL ENGINEERING**  
Program Code: BSAeronautical  
SCHOOL YEAR 2011-2012

| COURSE NO.                 | DESCRIPTION                       | LEC<br>HRS | LAB<br>HRS | CREDIT<br>UNITS | PREREQUISITE(S)<br>COREQUISITE(S) |
|----------------------------|-----------------------------------|------------|------------|-----------------|-----------------------------------|
| FIRST YEAR, FIRST SEMESTER |                                   |            |            |                 |                                   |
| ALGEBRA1                   | College Algebra 1                 | 3          | 0          | 3               | None                              |
| TRIGO                      | Plane and Spherical Trigonometry  | 3          | 0          | 3               | None                              |
| GENCHEM1                   | General Chemistry 1 Lecture       | 2          | 0          | 2               | None                              |
| GENCHEM1L                  | General Chemistry 1 Laboratory    | 0          | 3          | 1               | Coreq: GENCHEM1                   |
| ESDRAW                     | Engineering Drawing               | 0          | 3          | 1               | None                              |
| 1ENGLISH                   | Reading and Writing               | 3          | 0          | 3               | None                              |
| 4PHILHIS                   | Philippine History                | 3          | 0          | 3               | None                              |
| CLE1                       | Sowing Seeds of Faith             | 3          | 0          | 3               | None                              |
| 7SELECT                    | Self-Testing Activities           | 2          | 0          | 2               | None                              |
| CWTS1                      | Civic Welfare Training Services 1 | 0          | 3          | 3               | None                              |
| TOTAL                      |                                   | 19         | 9          | 24              |                                   |

FIRST YEAR, SECOND SEMESTER

|          |                                     |    |   |    |                     |
|----------|-------------------------------------|----|---|----|---------------------|
| ALGEBRA2 | College Algebra 2                   | 2  | 0 | 2  | ALGEBRA1            |
| ANAGEO   | Analytic Geometry                   | 3  | 0 | 3  | ALGEBRA1, TRIGO     |
| SOLIDM   | Solid Mensuration                   | 2  | 0 | 2  | ALGEBRA1, TRIGO     |
| GENCHEM2 | General Chemistry 2                 | 1  | 3 | 2  | GENCHEM1, GENCHEM1L |
| ARCDRAW  | Architectural Drawing               | 0  | 3 | 1  | ESDRAW              |
| 1SPEECH  | Speech and Oral Communication       | 3  | 0 | 3  | 1ENGLISH            |
| 4LOGIC   | Logic                               | 3  | 0 | 3  | None                |
| 4ARTAPP  | Art Appreciation                    | 3  | 0 | 3  | None                |
| CLE2     | Step to Conversion                  | 3  | 0 | 3  | CLE1                |
| 7RHYACT  | Fundamentals of Rhythmic Activities | 2  | 0 | 2  | 7SELECT             |
| CWTS2    | Civic Welfare Training Services 2   | 0  | 3 | 3  | CWTS1               |
| TOTAL    |                                     | 22 | 9 | 27 |                     |

SECOND YEAR, FIRST SEMESTER

|           |                                       |    |   |    |                          |
|-----------|---------------------------------------|----|---|----|--------------------------|
| DIFFCAL   | Differential Calculus                 | 4  | 0 | 4  | ALGEBRA2, ANAGEO, SOLIDM |
| PHYSICS1  | Physics 1 Lecture                     | 4  | 0 | 4  | ALGEBRA1, TRIGO          |
| PHYSICS1L | Physics 1 Laboratory                  | 0  | 3 | 1  | Coreq: PHYSICS1          |
| BASCAD    | Basic Computer-Aided Drafting         | 0  | 3 | 1  | ARCDRAW                  |
| 4GENPSY   | General Psychology                    | 3  | 0 | 3  | None                     |
| 1TECHCOM  | Technical Communication               | 3  | 0 | 3  | 1SPEECH                  |
| 3FILKOM   | Komunikasyon sa Akademikong Filipino  | 3  | 0 | 3  | None                     |
| CLE3      | Set to Uphold the Church's Conviction | 3  | 0 | 3  | CLE2                     |
| 7FUNGAM   | Fundamentals of Games and Sports      | 2  | 0 | 2  | 7RHYACT                  |
| TOTAL     |                                       | 22 | 6 | 24 |                          |

SECOND YEAR, SECOND SEMESTER

|           |   |    |    |    |                     |
|-----------|---|----|----|----|---------------------|
| INTECAL   | Integral Calculus                                 | 4  | 0  | 4  | DIFFCAL             |
| PHYSICS2  | Physics 2 Lecture                                 | 4  | 0  | 4  | PHYSICS1, PHYSICS1L |
| PHYSICS2L | Physics 2 Laboratory                              | 0  | 3  | 1  | Coreq: PHYSICS2     |
| COMFUN    | Computer Fundamentals and Programming             | 0  | 6  | 2  | 2nd Year Standing   |
| APCAD     | Advanced Computer-Aided Drafting and Applications | 0  | 3  | 1  | BASCAD              |
| 4RIZAL    | Life and Works of Rizal                           | 3  | 0  | 3  | None                |
| 4PHIGOV   | Philippine Government and the New Constitution    | 3  | 0  | 3  | 4PHILHIS            |
| 3FILBAS   | Pagbasa at Pagsulat Tungo sa Pananaliksik         | 3  | 0  | 3  | 3FILKOM             |
| CLE4      | Send to be Evangelizers                           | 3  | 0  | 3  | CLE3                |
| 7REACT    | Recreational Activities                           | 2  | 0  | 2  | 7FUNGAM             |
| TOTAL     |   | 22 | 12 | 26 |                     |

THIRD YEAR, FIRST SEMESTER

|          |   |    |   |    |                               |
|----------|---|----|---|----|-------------------------------|
| DIFEQNS  | Differential Equations                                | 3  | 0 | 3  | INTECAL                       |
| STATICS  | Statics of Rigid Bodies                               | 3  | 0 | 3  | PHYSICS1, PHYSICS1L, INTECAL  |
| ELENGG   | Basic Electrical Engineering                          | 3  | 0 | 3  | PHYSICS2, PHYSICS2L           |
| ESTHERM  | Thermodynamics  | 3  | 0 | 3  | INTECAL, PHYSICS2, PHYSICS2L  |
| ESENECO  | Engineering Economy                                   | 3  | 0 | 3  | 3rd Year Standing             |
| AIRMATLS | Aircraft Materials and Processes                      | 3  | 0 | 3  | GENCHEM2, PHYSICS2, PHYSICS2L |
| FUNDAERO | Fundamentals of Aerodynamics                          | 5  | 0 | 5  | PHYSICS2, PHYSICS2L, INTECAL  |
| 4PRINECO | Principles of Economics with Taxation and Land Reform | 3  | 0 | 3  | None                          |
| TOTAL    |   | 26 | 0 | 26 |                               |

THIRD YEAR, SECOND SEMESTER

|           |   |    |   |    |                             |
|-----------|---|----|---|----|-----------------------------|
| DYNAMICS  | Dynamics of Rigid Bodies                                | 2  | 0 | 2  | STATICS                     |
| ESELECS   | Basic Electronics                                       | 3  | 0 | 3  | ELENGG                      |
| ENVISAFE  | Environmental Engineering and Safety Management         | 3  | 0 | 3  | GENCHEM2, 3rd Year Standing |
| ADNUMET   | Advanced Engineering Mathematics with Numerical Methods | 3  | 0 | 3  | DIFEQNS                     |
| ESENMGT   | Engineering Management                                  | 3  | 0 | 3  | 3rd Year Standing           |
| RENGINES  | Reciprocating Engines Lecture                           | 4  | 0 | 4  | ESTHERM, AIRMATLS           |
| RENGINESL | Reciprocating Engines Laboratory                        | 0  | 3 | 1  | Coreq: RENGINES             |
| PROSTAT   | Probability and Statistics                              | 3  | 0 | 3  | ALGEBRA2, 3rd Year Standing |
| 4PHILOMAN | Philosophy of Man                                       | 3  | 0 | 3  | None                        |
| TOTAL     |   | 24 | 3 | 25 |                             |

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| COURSE NO.                  | DESCRIPTION                                 | LEC<br>HRS | LAB<br>HRS | CREDIT<br>UNITS | PREREQUISITE(S)<br>COREQUISITE(S) |
|-----------------------------|---|------------|------------|-----------------|-----------------------------------|
| FOURTH YEAR, FIRST SEMESTER |   |            |            |                 |                                   |
| MDEFBOD                     | Mechanics of Deformable Bodies              | 3          | 0          | 3               | STATICS                           |
| AIRFRAME                    | Airframe Construction and Repair            | 2          | 0          | 2               | AIRMATLS                          |
| AIRFRAMEL                   | Airframe Construction and Repair Laboratory | 0          | 6          | 2               | Coreq: AIRFRAME                   |
| AEROLAB                     | Aeronautical Laboratory                     | 1          | 6          | 3               | FUNDAERO                          |
| SUBAERO                     | Applied Subsonic Aerodynamics               | 5          | 0          | 5               | FUNDAERO                          |
| GASTURBIN                   | Gas Turbine Engines                         | 4          | 0          | 4               | ESTHERM                           |
| GASTURBINL                  | Gas Turbine Engines Laboratory              | 0          | 3          | 1               | Coreq: GASTURBIN                  |
| CADD1                       | Computer-Aided Drafting and Design 1        | 2          | 3          | 3               | COMFUN, APCAD                     |
| TOTAL                       |   | 17         | 18         | 23              |                                   |

|                              |  |    |   |    |                                       |
|------------------------------|--|----|---|----|---------------------------------------|
| FOURTH YEAR, SECOND SEMESTER |  |    |   |    |                                       |
| AIRLAWS                      | Air Laws and Regulations                       | 3  | 0 | 3  | 4th Year Standing                     |
| AMAINSP                      | Aircraft Maintenance and Inspection            | 3  | 0 | 3  | AIRMATLS                              |
| AMAIN SPL                    | Aircraft Maintenance and Inspection Laboratory | 0  | 3 | 1  | Coreq: AMAINSP                        |
| SUPERAERO                    | Applied Supersonic Aerodynamics                | 5  | 0 | 5  | SUBAERO                               |
| AESTRUCT1                    | Aircraft Structure 1                           | 5  | 0 | 5  | MDEFBOD, ADNUMET, AIRFRAME, AIRFRAMEL |
| ACRAFTSYS                    | Aircraft Systems                               | 4  | 0 | 4  | ESELECS                               |
| CADD2                        | Computer-Aided Drafting and Design 2           | 2  | 3 | 3  | CADD1                                 |
| P DPR1                       | Personality Development and Public Relations   | 1  | 0 | 1  | 4th Year Standing                     |
| TOTAL                        |  | 23 | 6 | 25 |                                       |

|                          |   |   |   |   |                   |
|--------------------------|---|---|---|---|-------------------|
| FOURTH YEAR, SUMMER TERM |   |   |   |   |                   |
| AEOJT                    | Aeronautical Engineering Practice (420 hours OJT) | 0 | 0 | 3 | 4th Year Standing |
| TOTAL                    |   | 0 | 0 | 3 |                   |

|                            |                                       |    |   |    |  |
|----------------------------|---------------------------------------|----|---|----|--|
| FIFTH YEAR, FIRST SEMESTER |                                       |    |   |    |  |
| AVIONICS                   | Aircraft Avionics                     | 4  | 0 | 4  | ACRAFTSYS  |
| AESTRUCT2                  | Aircraft Structure 2                  | 5  | 0 | 5  | AESTRUCT1  |
| AEDESIGN1                  | Aircraft Design 1                     | 3  | 6 | 5  | SUPERAERO, ENGINES, ENGINESL, ACRAFTSYS, GASTURBIN, GASTURBINL |
| AERENMGT                   | Aerodrome Engineering and Management  | 3  | 0 | 3  | ESENMGT, AIRLAWS   |
| HELIPROP                   | Basic Helicopter and Propeller Design | 3  | 0 | 3  | SUPERAERO, ENGINES, ENGINESL, ACRAFTSYS, GASTURBIN, GASTURBINL |
| AEMERES                    | Research Methods and Applications     | 2  | 0 | 2  | 1TECHCOM, PROSTAT, AEOJT                                       |
| TOTAL                      |                                       | 20 | 6 | 22 |  |

|                             |  |    |    |    |                           |
|-----------------------------|--|----|----|----|---------------------------|
| FIFTH YEAR, SECOND SEMESTER |  |    |    |    |                           |
| AVISAFE                     | Aviation Safety                            | 2  | 0  | 2  | ENVISAFE                  |
| AEDESIGN2                   | Aircraft Design 2                          | 3  | 6  | 5  | AEDESIGN1, AESTRUCT2      |
| AIRTRANS                    | Air Transport Economics and Management     | 3  | 0  | 3  | ESENECO, ESENMGT, AIRLAWS |
| RELENGG                     | Reliability Engineering                    | 3  | 0  | 3  | ADNUMET, AEMERES          |
| OPERENGG                    | Operations Engineering                     | 4  | 0  | 4  | SUBAERO, AERENMGT         |
| AETOPICS                    | Special Topics in Aeronautical Engineering | 0  | 6  | 2  | 5th Year Standing         |
| AEROELECT                   | Technical Elective                         | 3  | 0  | 3  |                           |
| TOTAL                       |  | 18 | 12 | 22 |                           |

COURSE TOTAL 247

|                     |                           |   |   |   |                              |
|---------------------|---------------------------|---|---|---|------------------------------|
| TECHNICAL ELECTIVES |                           |   |   |   |                              |
| ROCKEN              | Rocket Engines            | 3 | 0 | 3 | SUPERAERO, 5th Year Standing |
| HEMECRAFT           | Home-Built Aircraft       | 3 | 0 | 3 | 5th Year Standing            |
| AEROPFS             | Project Feasibility Study | 3 | 0 | 3 | ESENECO, AEMERES             |

IMPORTANT: Registration in any subject is allowed only upon passing the prerequisite(s) of the said subject, if any.  
A subject enrolled in violation of this rule will not be given any credit regardless of the grade obtained.