

College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University
Bachelor of Science
Major: Building Construction
Option: Construction and Design
Curriculum requirements for graduation calendar year 2016

First+ Second Year

| Courses | <u>Fall Semester</u> | | <u>Spring Semester</u> | |
|---|----------------------|------------------|------------------------|------------------|
| <hr/> | | | | |
| FIRST YEAR (31 Semester Credits) | Hours | Credits | Hours | Credits |
| <i>Fall Semester</i> | | | | |
| BC 1214 Intro. to Building Construction | (5) | 3 | | |
| ACIS 2115 Principles of Accounting | (3) | 3 | | |
| MATH 1114 Elementary Linear Algebra | (2) | 2 | | |
| ** MATH 1205 Calculus (Area 5 CLE) | (3) | 3 | | |
| * Elective Area 1 CLE | (3) | 3 | | |
| ** Elective Area 6 CLE | | 1 | | |
| | | <u>15</u> | | |
| <hr/> | | | | |
| <i>Spring Semester</i> | | | | |
| BC 1224 Intro. to Building Construction & Lab | | | (5) | 3 |
| BC 2114 IT in Design and Construction | | | (4) | 2 |
| ** ECON 2005 Principles of Economics (Area 3 CLE) | | | (3) | 3 |
| ** MATH 1206 Calculus (Area 5 CLE) | | | (3) | 3 |
| MATH 1224 Vector Geometry | | | (2) | 2 |
| * Elective Area 1 CLE | | | (3) | 3 |
| | | | | <u>16</u> |
| <hr/> | | | | |
| SECOND YEAR (35 Semester Credits) | Hours | Credits | Hours | Credits |
| <i>Fall Semester</i> | | | | |
| BC 2014 Construction Principles I | (5) | 3 | | |
| CEE 2814 CEE Measurements | (6) | 4 | | |
| ESM 2104 Statics | (3) | 3 | | |
| MATH 2224 Multivariable Calculus | (3) | 3 | | |
| ** PHYS 2305 Foundations of Physics I + Lab (Area 4 CLE) | (6) | 4 | | |
| | | <u>17</u> | | |
| <hr/> | | | | |
| <i>Spring Semester</i> | | | | |
| BC 2024 Construction Principles II | | | (3) | 3 |
| BC 2064 Construction Principles Lab | | | (3) | 2 |
| BC BC Elective | | | (3) | 3 |
| ** ECON 2006 Principles of Economics (Area 3 CLE) | | | (3) | 3 |
| ESM 2204 Mechanics of Deformable Bodies | | | (3) | 3 |
| ** PHYS 2306 Foundations of Physics I+ Lab (Area 4 CLE) | | | (6) | 4 |
| | | | | <u>18</u> |

FIRST AND SECOND YEAR ARE THE SAME FOR BOTH OPTIONS

Approved: _____
4-7-2014: Revised DOG to 2016

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Third + Fourth Year

| Courses | <u>Fall Semester</u> | | <u>Spring Semester</u> | |
|---|----------------------|-----------|------------------------|-----------|
| | Hours | Credits | Hours | Credits |
| THIRD YEAR (35 Semester Credits) | | | | |
| <i>Fall Semester</i> | | | | |
| BC 4004 Building Systems Technology I | (5) | 4 | | |
| BC 2044 Building and Materials + Lab | (4) | 3 | | |
| CEE 3404 Theory of Structures | (3) | 3 | | |
| ENGL 3764 Technical Writing | (3) | 3 | | |
| GEOS 2104 Elements of Geology+ Lab | (5) | 3 | | |
| ISE 2014 Engineering Economy | (2) | 2 | | |
| | | 18 | | |
| <i>Spring Semester</i> | | | | |
| BC 4014 Building Systems Technology II | | | (5) | 3 |
| BC 3064 Building Systems Technology Lab | | | (3) | 2 |
| BC 3004 Construction & Society | | | (3) | 3 |
| GEE 3424 Reinforced Concrete Structures I | | | (3) | 3 |
| CEE 3434 Design of Steel Structures I | | | (5) | 3 |
| FIN 3055 Legal Environment of Business | | | (3) | 3 |
| | | | | 17 |
| FOURTH YEAR (33 Semester Credits) | | | | |
| <i>Fall Semester</i> | | | | |
| BC 4434 Construction Practice I | (3) | 3 | | |
| BC 4164 Process Planning & Design | (3) | 3 | | |
| GEE 3514 Intro. to Geotechnical Engineering | (3) | 3 | | |
| MGT 3304 Mgmt. Theory and Leadership Practice | (3) | 3 | | |
| * Elective Area 2 Directed Elective | (3) | 3 | | |
| ** Elective Area 7 CLE | (3) | 3 | | |
| | | 18 | | |
| <i>Spring Semester</i> | | | | |
| BC 4444 Construction Practice II + Lab | | | (6) | 4 |
| BC 4064 Construction Practice (Capstone) Lab | | | (3) | 2 |
| Elective (Approved Business+ Mgmt.) | | | (3) | 3 |
| Elective (Approved Business + Mgmt.) | | | (3) | 3 |
| ** Elective Area 2 CLE | | | (3) | 3 |
| | | | | 15 |

THE FOOTNOTES AND SPECIAL NOTATIONS ON THE NEXT PAGE ARE AN INTEGRAL PART OF THIS CHECKSHEET.

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134 CH are required for a Bachelor of Science in Building Construction

NOTES:

1. * CLE Electives/Substitutions:

- **Area 1 CLE** - (6 CH Required) - Choose from:

- ENGL 1105/1106 or COMM 1015/1016

- **Area 2 CLE**- (6 CH Required)

| | Required | Credit Hours Req'd. |
|--|--------------|---------------------|
| - Any Area 2 Course | One required | 3 |
| - Area 2 Directed Elective: Choose from BC 3115, BC 3116, ITDS1114, HIST 2054 | One required | 3 |
| Total Area 2 Requirements | (2) Courses | 6 |

- Substitutions must be discussed with your BC advisor and approved by the Department. Please refer to the substitution course list online at www.bc.vt.edu for substitution options.

2. ** University Curriculum for Liberal Education requirement (CLE)

3. Pre-requisites/Co-requisites Requirements:

If courses are taken in the order presented on this check sheet all prerequisites will be satisfied. Otherwise, permission from the course department is required.

Satisfactory Progress Requirements:

- All students must meet overall GPA requirements of 2.0 for satisfactory progress toward their degree.
- All students must meet in-major (all courses designated BC) GPA minimum of 2.0 to maintain Building Construction Department Satisfactory Progress Requirements.
- During the Spring Semester of the Second Year all students must declare degree option either DREC or CD Option.

4. Business+ Management Electives (6 CH REQUIRED MAY NOT BE TAKEN PASS/FAIL)

Select courses from the approved list. Consult with your advisor and request prior department approval for any deviations from approved courses.

Approved Business + Management Electives (6 CH Required)

| Dept. | Course # | Course Name | Prerequisites |
|-------|----------|--|---|
| AAEC | 4754 | Real Estate Law | Junior standing (60 earned hr. minimum) |
| AAEC | 4764 | Real Estate Appraisal | Junior standing (60 earned hr. minimum) |
| BC | 3124 | Housing and Land Development | BC 2014; Junior standing |
| ECON | 3214 | Money and Banking (summer only) | ECON 2006 |
| ECON | 4124 | Growth and Development | ECON 2005 & 2006 |
| ECON | 4924 | Managerial Economics (summer only) | ECON 2005; MATH 1206 or 1526 & 2015. |
| FIN | 3056 | Legal Environment of Business | Junior standing (60 earned hr. minimum) |
| FIN | 3104 | Introduction to Finance | ACIS 2115 or ACTS 2004; Junior standing (60 earned hr. minimum) |
| MKTG | 3104 | Marketing Management | ECON 2006; Junior standing (60 earned hr. minimum) |
| BIT | 2405 | Quantitative Methods | ACIS 1504; MATH 1525 & 1526 |
| BIT | 2406 | Quantitative Methods | BIT 2405 |
| UAP | 2004 | Principles of Real Estate | |
| UAP | 4714 | Economics & Financing of State & Local Govs. | ECON 2006 |
| UAP | 4764 | International Development Policy & Planning | Junior standing |

5. Foreign Language Requirement: A sequence of (2) foreign language courses are required for graduation unless (2) high school credits of the same foreign language or (6) transfer credit hours of a foreign language have been earned.

6. A minimum overall GPA of 2.00 is required for graduation.