Grantham University Course Articulation

| CIAT Course Code | Title | Semester Hrs | Equivlaency | GU Course Code | Title | Semester Hrs |
|----------------------|------------------------------|--------------|-------------|----------------|------------------------------|--------------|
| Networking | | | | | | |
| 101A | Computer Hardware Fund | 4 | | CS106 | Intro to Computer Systems | 3 |
| 101B | Computer Operating Sys | 4 | | CS1** | CS Elective | 3 |
| 102A | Networking Fund I | 4 | | IS216 | Computer Networks | 3 |
| 102B | Networking Fund II | 4 | | IS2** | IS Elective | 3 |
| 120 | Network Security | 4 | | IS411 | Network Security | 3 |
| 154 | Windows Workstation | 4 | | CS340 | Operating Systems | 3 |
| 265 | Install & Config Windows | 4 | | CS2** | CS Elective | 3 |
| 266 | Administer Windows | 4 | | CS2** | CS Elective | 3 |
| 267 | Config Adv Windows | 4 | | CS2** | CS Elective | 3 |
| 246 | Monitor & Operating Priv | 4 | | IS2** | IS Elective | 3 |
| 247 | Config & Deploy a Private | 4 | | IS220 | Cloud Computing | 3 |
| Intermediate and Adv | anced Network Security | | | | | |
| 220 | Certified Ethical Hacker | 4 | | IS475 | Ethical Hacking | 3 |
| 221 | Adv Network Security | 4 | | IS211 | Intro to Information Systems | 3 |
| 222 | Adv Security Practitioner | 4 | | IS355 | Risk Management | 3 |
| Linux-based Operatin | g System | | | | | |
| 230A | Install & Config of Linux I | 4 | | CS2** | CS Elective | 3 |
| 230B | Install & Config of Linux II | 4 | | CS2** | CS Elective | 3 |
| Virtualization | | | | | | |
| 290 | Network Virtualization | 4 | | IS2** | IS Elective | 3 |
| CISCO Networking | | | | | | |
| 270A | Cicso Config ICND1 | 4 | | IS316 | TCP/IP Networks | 3 |
| 270B | Cisco Config ICND2 | 4 | | IS2** | IS Elective | 3 |
| 271 | Implement Cisco IOS | 4 | | IS2** | IS Elective | 3 |
| 272 | Implement Cisco IP | 4 | | IS2** | IS Elective | 3 |

| 273 | Implement Cisco IP | 4 | IS2** | IS Elective | 3 |
|-------------------|-----------------------------|---|----------|-----------------------------|---|
| 274 | Troubleshoot & Maintain | 4 | IS2** | IS Elective | 3 |
| oftware Deveopmen | t | | | | |
| ASD101 | Fund of Software Design | 4 | CS265 | Programming in C++ | 4 |
| | | | or CS192 | Programming Essentials | 3 |
| ASD102 | Object-Orient Prog with | 4 | CS285 | Advanced Programming in C++ | 4 |
| ASD103 | Rel Database Mgmt Sys & | 4 | IS320 | Database Applications | 3 |
| ASD150 | Operating Sys Concepts | 4 | CS340 | Operating Systems | 3 |
| ASD170 | Front-End Dev with HTML, | 4 | CS197 | Programming in HTML | 3 |
| | | | or IS301 | Web Design I | 4 |
| ASD190 | Internet Arch with HTPP & | 4 | CS2** | CS Elective | 3 |
| ASD210 | Python Fund and Best | 4 | CS2** | CS Elective | 3 |
| ASD215 | C# Bus Programming | 4 | CS412 | Programming in C# with .Net | 4 |
| ASD220 | Linux Admin & Shell | 4 | CS2** | CS Elective | 3 |
| ASD225 | Windows Dev and Admin | 4 | CS2** | CS Elective | 3 |
| ASD227 | iOS Prog with Objective-C | 4 | CS340 | Operating Systems | 3 |
| ASD230 | Open Source Servers | 4 | CS2** | CS Elective | 3 |
| ASD235 | SQL Server and T-SQL | 4 | CS371 | Database Design | 4 |
| ASD247 | Android App Development | 4 | CS340 | Operating Systems | 3 |
| ASD255 | Web Development with | 4 | IS370 | Server Side Web Development | 4 |
| ASD260 | MEAN Stack Development | 4 | IS2** | IS Elective | 3 |
| ASD265 | Cloud Computing with | 4 | IS220 | Cloud Computing | 3 |
| ASD267 | Virtual Reality with Google | 4 | IS2** | IS Elective | 3 |
| ASD277 | Embedded Computers and | 4 | IS2** | IS Elective | 3 |
| ASD280 | Django Framework | 4 | CS2** | CS Elective | 3 |
| ASD290 | Ruby on Rails Framework | 4 | CS2** | CS Elective | 3 |
| ASD295 | Augmented Reality with | 4 | CS2** | CS Elective | 3 |

| BUS101Word Processing3CS105BUS102Spreadsheets3CS155BUS103Presentation Applications3CS1**BUS104Database Management3IS1**BUS105Business and Email3IS1**Media Arts - Graphic Design3HU1**GRD101Introduction to Graphic3HU1**GRD102Image Manipulation3IS104GRD103Digital Illusions3EL1**GRD202Graphic Design for Print3EL2**GRD301Portfolio Creation3IS3**Media Arts Web Design3CS197WEB101Introduction to Web3CS197WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3GS301WEB103Intermediate Web Design3GS306WEB201Programming for the Web3GS306WEB201Programming for the Web3GS306WEB201Programmin | Intro to Computer Applications Computer Applications for CS Elective IS Elective IS Elective HU Elective Digital Graphic Fundamentals | 3 3 3 3 3 |
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| BUS103Presentation Applications3CS1**BUS104Database Management3IS1**BUS105Business and Email3IS1**Aedia Arts - Graphic DesignImage Manipulation3Image ManipulationGRD101Introduction to Graphic3HU1**GRD102Image Manipulation3EL1**GRD203Digital Illusions3EL1**GRD204Graphic Design for Print3EL2**GRD205Graphic Design for the3Image ManipulationGRD204Graphic Design for the3EL2**GRD205Fortfolio Creation3Image ManipulationMedia Arts Web DesignGS301S3**Media Arts Web DesignGS301S301WEB101Introduction to WebGGS301WEB102Responsive Web DesignGS306S306WEB103Intermediate Web DesignGGS306WEB104Intermediate Web DesignGGS306WEB105Intermediate Web DesignGGS306WEB105Intermediate Web DesignGGS306WEB105Intermediate Web DesignGGS306WEB201Programming for the WebGGS306WEB201Programming for the WebGGS306WEB201Programming for the WebGGS306MediaMediaGGGMediaM | CS Elective IS Elective IS Elective HU Elective | 3 3 3 |
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| BUS105Business and Email3IS1**Bedia Arts - Graphic DesignIS1**GRD101Introduction to Graphic3HU1**GRD102Image Manipulation3IS104GRD103Digital Illusions3EL1**GRD201Graphic Design for Print3EL1**GRD202Graphic Design for the3EL2**GRD301Portfolio Creation3IS3**Tedia Arts Web DesignSCS197WEB101Introduction to Web3CS197WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3orWEB104Intermediate Web Design3orWEB105Intermediate Web Design3orWEB103Intermediate Web Design3orWEB201Programming for the Web3IS306 | IS Elective HU Elective | 3 |
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| GRD201Graphic Design for Print3EL1**GRD202Graphic Design for the3EL2**GRD301Portfolio Creation3IS3**Iedia Arts Web Design3CS197WEB101Introduction to Web3CS197WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3CS197WEB104Intermediate Web Design3CS197WEB105Intermediate Web Design3CS197WEB106Intermediate Web Design3CS197WEB107Intermediate Web Design3CS197WEB108Intermediate Web Design3CS197WEB109Intermediate Web Design3CS197WEB109Intermediate Web Design3CS197WEB109Intermediate Web Design3CS197WEB201Programming for the Web3IS306 | | 3 |
| GRD202Graphic Design for the GRD3013EL2**GRD301Portfolio Creation3IS3**Iedia Arts Web Design3CS197WEB101Introduction to Web3CS197WEB102Responsive Web Design3CS197WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3CS197WEB103Intermediate Web Design3orWEB103Intermediate Web Design3orWEB103Programming for the Web3S306 | Elective | 3 |
| GRD301Portfolio Creation3IS3**edia Arts Web DesignIntroduction to Web3CS197WEB101Introduction to Web3CS197WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3CS197WEB103Intermediate Web Design3OrWEB103Intermediate Web Design3OrWEB103Intermediate Web Design3OrWEB103Intermediate Web Design3OrWEB103Intermediate Web Design3OrWEB103Intermediate Web Design3OrWEB201Programming for the Web3IS306 | Elective | 3 |
| edia Arts Web DesignIntroduction to Web3CS197WEB101Introduction to Web3CS197WEB102Responsive Web Design3CS197WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3S301WEB103Intermediate Web Design3S306WEB103Intermediate Web Design3CS208WEB103Programming for the Web3Is306 | Elective | 3 |
| WEB101Introduction to Web3CS197Image: CS197Image: CS197Image: CS197Image: CS197WEB102Responsive Web Design3CS197Image: CS197Image: CS197 <td>IS Elective Upper Level</td> <td>3</td> | IS Elective Upper Level | 3 |
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| WEB102Responsive Web Design3CS197WEB103Intermediate Web Design3orIS301WEB103Intermediate Web Design3orIS306WEB103Intermediate Web Design3orCS208WEB201Programming for the Web3IS306IS306 | Programming in HTML | 3 |
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| WEB103Intermediate Web Design3IS306Image: Sign of the Web Design of the Web D | Programming in HTML | 3 |
| Image: Constraint of the second of the sec | Web Design I | 4 |
| WEB201Programming for the Web3CS350WEB201Normal StateS306 | Web Design II | 4 |
| WEB201 Programming for the Web 3 IS306 | Programming in Javascript | 4 |
| | Intro to jQuery | 3 |
| or CS350 | Web Design II | 4 |
| | Intro to jQuery | 3 |
| or CS208 | Programming in Javascript | 4 |
| WEB202 User Interface Design & 3 CS430 | Mobile App Dev | 4 |
| WEB301 Online Porfolio Creation 3 IS3** | | 3 |

| ENG100 | College Reading and | 3 | | EN100 | Fundamentals of Written | 3 |
|--------|----------------------------|---|----|--------|---------------------------------|---|
| ENG101 | English Composition | 3 | | EN101 | English Composition | 3 |
| ENG150 | Oral Communications Skills | 3 | | CO101 | Introducation to Public | 3 |
| ENG201 | Literature and the Art of | 3 | | EN2** | EN Elective | 3 |
| MTH101 | Intermediate Algebra | 3 | | MA104 | Fundamentals of Algebra | 3 |
| MTH105 | College Algebra | 3 | | MA105 | College Algebra | 3 |
| MTH110 | Plane Geometry | 3 | | MA1** | MA Elective | 3 |
| MTH120 | Trigonometry | 3 | | MA111 | College Trigonometry | 3 |
| MTH140 | Statistics | 4 | | MA230 | Mathematical Statistics | 3 |
| MTH150 | Pre-Calculus | 4 | | MA141 | Precalculus | 3 |
| MTH161 | Calculus I | 4 | | MA302 | Calculus I | 4 |
| MTH162 | Calculus II | 4 | | MA2** | MA Elective | 3 |
| | | | or | MA302 | Calculus I | 4 |
| MTH163 | Calculus III | 4 | | MA312 | Calculus II | 4 |
| SCI110 | Physics | 3 | | PH1** | PH Elective (Natural Science) | 3 |
| SCI120 | General Biology | 3 | | GS102 | Introduction to Life Science | 3 |
| SCI130 | Principles of Chemistry | 3 | | CH205 | General Chemistry (Lab | 4 |
| SBS110 | Introduction to Psychology | 3 | | PS101 | Fundamentals of Psychology | 3 |
| SBS120 | Sociology | 3 | | SO101 | Introduction to Sociology I | 3 |
| SBS130 | History | 3 | | HS202 | U.S. History: Post Civil War to | 3 |
| SBS140 | Geography | 3 | | SS106 | Geography | 3 |
| SBS150 | Economics | 3 | | ECN1** | ECN Elective | 3 |
| SBS160 | Philosophy | 3 | | PL201 | Introduction to Philosophy | 3 |
| SBS170 | Political Science | 3 | | GP210 | American Government I | 3 |