

**COORDINATED ENGINEERING PROGRAM**  
**BROOKLYN COLLEGE, CUNY**  
**NEW YORK UNIVERSITY-TANDON SCHOOL OF ENGINEERING**

ARTICULATION IN:

- *CHEMICAL and BIOMOLECULAR ENGINEERING (CBE)*
- *CIVIL and URBAN ENGINEERING (CUE)*
- *COMPUTER ENGINEERING (CompE)*
- *ELECTRICAL ENGINEERING (EE)*
- *MECHANICAL and AEROSPACE ENGINEERING (MAE)*

**As of Fall 2024 (October 28)**

For more information:

Prof. Mim Lal Nakarmi, Brooklyn College  
[mlnakarmi@brooklyn.cuny.edu](mailto:mlnakarmi@brooklyn.cuny.edu)

Prof. Peter Voltz, NYU-Tandon  
[voltz@nyu.edu](mailto:voltz@nyu.edu)

# BROOKLYN COLLEGE & NYU-TANDON

Articulation in **CHEMICAL and BIOMOLECULAR ENGINEERING** leading to **NYU SoE BS CBE**

| BC Course           |   | Credit | Equivalent NYU-TADON Course |   | Credit at Tandon |
|---------------------|---|--------|-----------------------------|---|------------------|
| MATH 1201           | Calculus I                                  | 4      | MA-UY 1024                  | Calculus I                              | 4                |
| MATH 1206           | Calculus II                                 | 4      | MA-UY 1124                  | Calculus II                             | 4                |
| MATH 2201           | Multivariable Calculus                      | 4      | MA-UY 2114                  | Calculus III                            | 4                |
| MATH 2101           | Linear Algebra                              | 3      |                             | Free Elective-1                         | 3                |
| MATH 2206           | Introduction to Differential Equations      | 4      | MA-UY 2034                  | Linear Algebra & Differential Equations | 4                |
| PHYS 1150           | Calculus-based General Physics I (with Lab) | 5      | PH-UY 1013                  | Mechanics                               | 3                |
| PHYS 2150           | Calculus-based General Physics I (with Lab) | 5      | PH-UY 2023<br>+ 2121        | Electricity, Magnetism & Fluids + Lab I | 4                |
|                     |   |        | PH-UY 2033<br>+2131         | Wave, Optics, Thermodynamics + Lab II   | 4                |
| PHYS 3200/<br>3400  | Engineering Mechanics/<br>Thermodynamics    | 4      |                             | Free Elective 2                         | 3                |
| PHYS 3300           | Electrical Circuit Analysis                 | 4      | EG-UY 1004                  | Intro to Engineering & Design           | 4                |
| CHEM 1200           | General Chemistry I                         | 3.5    | CM-UY 1003                  | General Chemistry                       | 3                |
| CHEM 1201           | General Chemistry I lab                     | 1.5    | CM-UY 1001                  | General Chemistry I lab                 | 1                |
| CHEM 2200<br>+ 2201 | General Chemistry II + lab                  | 5*     |                             |   |                  |
| CHME 2110           | Principles of Chemical Reactivity           | 2      |                             | Free Elective 4                         | 2                |
| CHEM 3511<br>+3512  | Organic Chemistry I + Lab                   | 5      | CM-UY 2213                  | Organic Chemistry I                     | 3                |
| CHEM 3521<br>+3522  | Organic Chemistry II + Lab                  | 5      | CM-UY 2223                  | Organic Chemistry II                    | 3                |
| BIOL 1001           | General Biology I                           | 4.5*   |                             |   |                  |
| BIOL 1002           | General Biology II                          | 4.5    | BMS-UY<br>1003+1001         | Intro to Cell & Molecular Biology + Lab | 4                |
| CISC 1115           | Intro to Programming using JAVA             | 4      |                             | Free electives 3                        | 3                |
| ENGL 1010           | English Composition I                       | 3      | EXPOS-UA 1                  | Writing the Essay                       | 4                |
| ENGL 1012           | English Composition II                      | 3      | EXPOS-UA 22                 | The Advanced College Essay              | 4                |

\*Prerequisite courses

# BROOKLYN COLLEGE & NYU-TANDON

Articulation in **CIVIL and URBAN ENGINEERING** leading to **NYU SoE BS CUE**

| BC Course          |  | Credit | Equivalent NYU-TADON Course |   | Credit at Tandon |
|--------------------|--|--------|-----------------------------|---|------------------|
| MATH 1201          | Calculus I   | 4      | MA-UY 1024                  | Calculus I for Engineers                | 4                |
| MATH 1206          | Calculus II  | 4      | MA-UY 1124                  | Calculus II for Engineers               | 4                |
| MATH 2201          | Multivariable Calculus   | 4      | MA-UY 2114                  | Free Elective 2                         | 3                |
| MATH 2101          | Linear Algebra   | 3      |                             | Free Elective 1                         | 3                |
| MATH 2206          | Introduction to Differential Equations                               | 4      | MA-UY 2034                  | Linear Algebra & Differential Equations | 4                |
| PHYS 1150          | Calculus-based General Physics I (with Lab)                          | 5      | PH-UY 1013                  | Mechanics                               | 3                |
| PHYS 2150          | Calculus-based General Physics I (with Lab)                          | 5      | PH-UY 2023                  | Electricity, Magnetism & Fluids         | 3                |
|                    |  |        | PH-UY 2121                  | General Physics Lab 1                   | 1                |
|                    |  |        | PH-UY 2033                  | Wave, Optics, Thermodynamics + Lab      | 3                |
| PHYS 3100/<br>3400 | Intro to Modern Physics/<br>Thermodynamics                           | 3      |                             | Free Elective 3                         | 3                |
| PHYS 3200          | Engineering Mechanics  | 4      |                             |   |                  |
| PHYS 3300          | Electrical Circuit Analysis  | 4      | CE-UY 2112                  | Structural Statics                      | 2                |
| PHYS 3900          | Electrical Measurement Lab   | 2      | EG-UY 1004                  | Intro to Engineering & Design           | 4                |
| CHEM 1200          | General Chemistry I  | 3.5    | CM-UY 1003                  | General Chemistry                       | 3                |
| CHEM 1201          | General Chemistry I lab  | 1.5    | CM-UY 1001                  | General Chemistry I lab                 | 1                |
|                    | Science (Earth & Environment Science, Biology,...)                   | 3      |                             | Science Elective                        | 3                |
| CISC 1115          | Intro to Programming using JAVA                                      | 4      | CS-UY 1113                  | Problem Solving & Programming           | 3                |
| ENGL 1010          | English Composition I  | 3      | EXPOS-UA 1                  | Writing the Essay                       | 4                |
| ENGL 1012          | English Composition II   | 3      | EXPOS-UA 22                 | The Advanced College Essay              | 4                |
|                    | Two HUSS courses (History/English Literature, Philosophy, Sociology) | 6      |                             | HU/SS Electives 1, 2.                   | 8                |

# BROOKLYN COLLEGE & NYU-TANDON

Articulation in **COMPUTER ENGINEERING** leading to **NYU SoE BS CompE**

| BC Course          |   | Credit | Equivalent NYU-TADON Course |   | Credit at Tandon |
|--------------------|---|--------|-----------------------------|---|------------------|
| MATH 1201          | Calculus I                                  | 4      | MA-UY 1024                  | Calculus I                              | 4                |
| MATH 1206          | Calculus II                                 | 4      | MA-UY 1124                  | Calculus II                             | 4                |
| MATH 2201          | Multivariable Calculus                      | 4      | MA-UY 2114                  | Calculus III                            | 4                |
| MATH 2101          | Linear Algebra                              | 3      | MA-UY 2034                  | Linear Algebra & Differential Equations | 4                |
| MATH 2206          | Introduction to Differential Equations      | 4      |                             |   |                  |
| PHYS 1150          | Calculus-based General Physics I (with Lab) | 5      | PH-UY 1013                  | Mechanics                               | 3                |
| PHYS 2150          | Calculus-based General Physics I (with Lab) | 5      | PH-UY 2023                  | Electricity, Magnetism & Fluids         | 3                |
|                    |   |        | PH-UY 2121                  | General Physics Lab 1                   | 1                |
|                    |   |        | PH-UY 2033<br>+2131         | MA/SCI Elective                         | 3                |
| PHYS 3100          | Intro to Modern Physics                     | 3      |                             | Free Elective                           | 3                |
| PHYS 3200/<br>3400 | Engineering Mechanics/<br>Thermodynamics    | 4      | EG-UY 1004                  | Intro to Engineering & Design           | 3                |
| PHYS 3300          | Electrical Circuit Analysis                 | 4      | EG-UY 2004                  | Circuits I & II                         | 4                |
| PHYS 3900          | Electrical Measurement Lab                  | 2      | ECS-UY 1002                 | Intro to Electrical & Computer Engg.    | 2                |
| CHEM 1200          | General Chemistry I                         | 3.5    | CM-UY 1003                  | MA/SCI Elective                         | 4                |
| CHEM 1201          | General Chemistry I lab                     | 1.5    | CM-UY 1001                  |   |                  |
| CISC 1115          | Intro to Programming using JAVA             | 4      | CS-UY 1114                  | Intro to Programming (Python)           | 4                |
| CISC 3115          | Intro to Modern Programming Techniques      | 4*     |                             |   |                  |
| CISC 3130          | Data Structures                             | 4      | CS-UY 1134                  | Data Structures in Python               | 4                |
| CISC 3142          | Programming Paradigms in C++                | 3      | CS-UY 2124                  | Object Oriented Programming             | 4                |
| ENGL 1010          | English Composition I                       | 3      | EXPOS-UA 1                  | Writing the Essay                       | 4                |
| ENGL 1012          | English Composition II                      | 3      | EXPOS-UA 22                 | The Advanced College Essay              | 4                |

# BROOKLYN COLLEGE & NYU-TANDON

Articulation in **ELECTRICAL ENGINEERING** leading to NYU SoE BS EE

| BC Course          |   | Credit | Equivalent NYU-TADON Course |  | Credit at Tandon |
|--------------------|---|--------|-----------------------------|--|------------------|
| MATH 1201          | Calculus I                                  | 4      | MA-UY 1024                  | Calculus I                                 | 4                |
| MATH 1206          | Calculus II                                 | 4      | MA-UY 1124                  | Calculus II                                | 4                |
| MATH 2201          | Multivariable Calculus                      | 4      | MA-UY 2114                  | Calculus III                               | 4                |
| MATH 2101          | Linear Algebra                              | 3      | MA-UY 1044                  | Linear Algebra                             | 4                |
| MATH 2206          | Introduction to Differential Equations      | 4      | MA-UY 4204                  | Differential Equations                     | 4                |
| PHYS 1150          | Calculus-based General Physics I (with Lab) | 5      | PH-UY 1013                  | Mechanics                                  | 3                |
| PHYS 2150          | Calculus-based General Physics I (with Lab) | 5      | PH-UY 2023                  | Electricity, Magnetism & Fluids            | 3                |
|                    |   |        | PH-UY 2121                  | General Physics Lab 1                      | 1                |
|                    |   |        | PH-UY 2033                  | MA/SCI Elective                            | 4                |
|                    |   |        | +2131                       |  |                  |
| PHYS 3100          | Intro to Modern Physics                     | 3      |                             | Free Elective 1                            | 3                |
| PHYS 3200/<br>3400 | Engineering Mechanics/<br>Thermodynamics    | 4      | EG-UY 1004                  | Intro to Engineering & Design              | 4                |
| PHYS 3300          | Electrical Circuit Analysis                 | 4      | EG-UY 2004                  | Circuits I & II                            | 4                |
| PHYS 3900          | Electrical Measurement Lab                  | 2      | ECS-UY 1002                 | Intro to Electrical & Computer Engineering | 2                |
| CHEM 1200          | General Chemistry I                         | 3.5    | CM-UY 1003                  | MA/SCI Elective                            | 4                |
| CHEM 1201          | General Chemistry I lab                     | 1.5    | CM-UY 1001                  |  |                  |
| CISC 1115          | Intro to Programming using JAVA             | 4      | CS-UY 1114                  | Intro to Programming (Python)              | 4                |
| CISC 3115          | Intro to Modern Programming Techniques      | 4*     |                             |  |                  |
| CISC 3130          | Data Structures                             | 4      | CS-UY 2163                  | Intro to Programming in C                  | 4                |
| ENGL 1010          | English Composition I                       | 3      | EXPOS-UA 1                  | Writing the Essay                          | 4                |
| ENGL 1012          | English Composition II                      | 3      | EXPOS-UA 22                 | The Advanced College Essay                 | 4                |

# BROOKLYN COLLEGE & NYU-TANDON

Articulation in **MECHANICAL & AEROSPACE** leading to **NYU SoE BS MAE**

| BC Course |  | Credit | Equivalent NYU-TADON Course |   | Credit at Tandon |
|-----------|--|--------|-----------------------------|---|------------------|
| MATH 1201 | Calculus I   | 4      | MA-UY 1024                  | Calculus I                              | 4                |
| MATH 1206 | Calculus II  | 4      | MA-UY 1124                  | Calculus II                             | 4                |
| MATH 2201 | Multivariable Calculus   | 4      | MA-UY 2114                  | Calculus III                            | 4                |
| MATH 2101 | Linear Algebra   | 3      |                             | STEM2 Elective 1                        | 3                |
| MATH 2206 | Introduction to Differential Equations                                 | 4      | MA-UY 2034                  | Linear Algebra & Differential Equations | 4                |
| PHYS 1150 | Calculus-based General Physics I (with Lab)                            | 5      | PH-UY 1013                  | Mechanics                               | 3                |
| PHYS 2150 | Calculus-based General Physics I (with Lab)                            | 5      | PH-UY 2121                  | General Physics Lab 1                   | 1                |
|           |  |        | PH-UY 2023                  | Electricity, Magnetism & Fluids         | 3                |
|           |  |        | +2131                       | Math/Science Elective                   | 4                |
| PHYS 3100 | Intro to Modern Physics  | 3      |                             | Intro to Mechanical Engg.               | 2                |
| PHYS 3200 | Engineering Mechanics  | 4      | ME-UY 1012                  | Statics                                 | 3                |
| PHYS 3300 | Electrical Circuit Analysis  | 4      | EG-UY 2213                  |   |                  |
| PHYS 3900 | Electrical Measurement Lab   | 2      | EG-UY 1004                  | Intro to Engineering & Design           | 4                |
| CHEM 1200 | General Chemistry I  | 3.5    | CM-UY 1003                  | General Chemistry                       | 3                |
| CHEM 1201 | General Chemistry I lab  | 1.5    | CM-UY 1001                  | General Chemistry I lab                 | 1                |
| CISC 1115 | Intro to Programming using JAVA  | 4      | CS-UY 1113                  | Problem Solving & Programming           | 3                |
| ENGL 1010 | English Composition I  | 3      | EXPOS-UA 1                  | Writing the Essay                       | 4                |
| ENGL 1012 | English Composition II   | 3      | EXPOS-UA 22                 | The Advanced College Essay              | 4                |
|           | Three HUSS courses (History/English Literature, Philosophy, Sociology) | 9      |                             | HUSS Electives 1, 2.                    | 8                |
|           |  |        |                             | Free Elective                           | 3                |