

# RIO HONDO COLLEGE Addendum to 2022-2023 Catalog

# **Effective Spring 2023**

The Rio Hondo College Catalog Addendum represents course and program additions since the last publication of the catalog. Included in the Addendum are new certificates as well as new courses that will be offered in the Spring and Summer of 2023. These changes are effective as of the Spring 2023 semester.

Students are advised to consult with a counselor for questions pertaining to the academic programs offered at Rio Hondo College.

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# **NEW**

# **CERTIFICATES**

OF

**ACHIEVEMENT** 

Division of Career and Technical Education

## CERTIFICATE OF ACHIEVEMENT

This Certificate of Achievement provides a focused course of study for students in preparation for careers in the field of computer-aided design (CAD). Emphasis is placed on the use of CAD software to complete projects in engineering, manufacturing, or related fields. Coursework involves the preparation of CAD projects and 3D models accomplished within a design environment as experienced in higher levels of engineering education, and as is common in workplace conditions.

To acquire the **Certificate of Achievement in Engineering Design Technology: CAD Specialist**, it is necessary to complete the following courses:

Required Course	S:	Units
ENGT 150 or	AutoCAD for Basic CADD Applications	4
ENGT 170	MicroStation for Basic CADD Applications	4
ENGT 250	Introduction to Parametric Modeling 3D Applications for Mechanical Design	4
ENGT 200	*Intermediate CAD Modeling for Design & Production	4
ENGT 270 or	*Advanced 3D Parametric Modeling and Prototype Applications	4
ENGT 280	* Advanced MicroStation for CADD & BIM Applications (Same as ARCH 280)	4

# Units Required 16

<sup>\*</sup> Prerequisite

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Division of Career and Technical Education

# CERTIFICATE OF ACHIEVEMENT

This Certificate of Achievement is designed for technical, mechanical, and manufacturing careers and CADD/Drafting-related industries. The certificate is intended to represent skills and understanding of production and design processes utilizing CAD software and prototyping.

To acquire the **Certificate of Achievement in Engineering Design Technology: Design and Production**, it is necessary to complete the following courses:

<b>Required Courses:</b>		Units
ENGT 123	Intermediate Engineering Design: Descriptive Geometry	2
ENGT 200	*Intermediate CAD Modeling for Design & Production	4
ENGT 131	*Advanced Engineering Design: Manufacturing Applications of Technical Drawing	4
ENGT 231	*Advanced Engineering Design: Product Design and Presentation	4
ENGT 270	*Advanced 3D Parametric Modeling and Prototype Applications	4

# Units Required 18

<sup>\*</sup> Prerequisite

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Division of Career and Technical Education

## **CERTIFICATE OF ACHIEVEMENT**

This Certificate of Achievement provides a focused course of study for students in preparation for careers in the field of engineering, manufacturing, drafting, and design technology. Emphasis is placed on the use of industry standards to complete projects in engineering, manufacturing, or related fields. Coursework involves the preparation of industry standards outlined by industry organizations such as the International Organization for Standardization (ISO), American National Standards Institution (ANSI), and American Society of Mechanical Engineers (ASME) to accomplish projects within a design environment as experienced in higher levels of engineering education, and as is common in workplace conditions.

To acquire the **Certificate of Achievement in Engineering Design Technology: Standards for Design**, it is necessary to complete the following courses:

Required Courses		Units
ENGT 101	Introduction to Technical Drawing & Graphics	3
ENGT 105	Introduction to Visualization, Sketching, & Rendering	2
ENGT 122	Intermediate Engineering Design: Geometric Dimensioning & Tolerancing	3
ENGT 250	Introduction to Parametric Modeling 3D Applications for Mechanical Design	4
ENGT 150 or	AutoCAD for Basic CADD Applications	4
ENGT 170	MicroStation for Basic CADD Applications	4
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Units Required 16

**NEW** 

**CREDIT** 

**COURSES** 

#### **ASL 299**

## **Directed Study: American Sign Language**

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an Independent Study/Directed Study course, students must possess a 2.5 overall grade point average or a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students are expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress is evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies are the same as those for other courses. Units are awarded in accordance to Title 5 regulations, with one unit of credit awarded for 54 hours of Directed Studies, 6 hours of which must be with an instructor. The instructor is responsible for monitoring student progress throughout the semester. Students may take directed study courses for a maximum of 3 units within a discipline, and may not accumulate more than a total of 9 units college wide.

#### **TESL 101A**

Tesla Student Automotive Technician (START) Program - A This course is the first in a series of four courses intended to teach entry-level students about electric vehicle (EV) applications and the technology used at Tesla, Inc. The course is suitable for students already working in the battery electric/hybrid vehicle and energy technology field and students who have completed a two-year automotive program. This first course covers the history of the Tesla company, a product and model overview, and an introduction to Tesla's service network, laptop diagnostic system, and service/parts access. Technical skills covered in this series include high-voltage tools and safety systems, diagnoses using software applications (e.g., Fast Lane), service repair basics, basic chassis, driver systems, and thermal and heating ventilation air conditions (HVAC) system services. Río Hondo's Tesla START program provides students with skills needed for a successful career with Tesla, Inc. A formal application and interview process is required for acceptance into this course/program.

4 Units

45 Lecture hours/81 Lab hours

#### **TESL 101B**

Tesla Student Automotive Technician (START) Program - B This course is the second in a series of four courses intended to teach entry-level students about electric vehicle (EV) applications and the technology used at Tesla, Inc. The course is suitable for students already working in the battery electric/hybrid vehicle and energy technology field and students who have completed a two-year automotive program. The course covers a product and model overview, ongoing product changes, computer firmware applications, and introduction to the Tesla service network through service center shadowing. Laptop diagnostic systems, service/parts access, and factory repair times (FRT) skills are also introduced. Technical skills covered in this series include high-voltage interlock loop (HVIL) and driver safety systems, diagnoses using software applications (e.g., Fast Lane), customer interactions, alignment, chassis, sensor systems, heat pump basics, thermal and heating ventilation air conditioning (HVAC) system services, and drive motor basics. Río Hondo's Tesla START program provides students with skills needed for a successful career with Tesla, Inc. A formal application and interview process is required for acceptance into this course/program.

4 Units

45 Lecture hours/81 Lab hours

#### **TESL 101C**

Tesla Student Automotive Technician (START) Program - C
This course is the third in a series of four courses
intended to improve student's skills about electric
vehicle (EV) applications and the technology used at
Tesla, Inc. The course covers service readiness, service
center procedures, high voltage charging including
equipment needed to charge the battery, introduction
to the CAN language used in the vehicle and vehicle
interface with charger unit, introduction to the
penthouse controls and charging power control center,
HV controller, and driver interaction with the vehicle
commands, meter and scope introduced to the inverter
and DC/DC power control diagnosis. New model
Palladium features are also introduced as they are
being used in several vehicles now.

4 Units

45 Lecture hours/81 Lab hours

#### TESL 101D

Tesla Student Automotive Technician (START) Program - D This course is the final one in a series of four courses intended to teach entry-level students about electric vehicle (EV) applications and the technology used at Tesla, Inc. The course is suitable for students already working in the battery electric/hybrid vehicle and energy technology field and students who have completed a two-year automotive program. This final course improves students' skills and speed in servicing Tesla electric vehicles. The course focuses on infotainment systems, voice commands, navigation, full driverless controls, vehicle reconditioning, advanced braking and suspension system skills with lift and lowering controls, computer area networks (CAN), and vehicle remote access for diagnostics. Upon completing the course, students are granted an interview with Tesla, Inc. for placement at a permanent service center. Río Hondo's Tesla START program provides students with skills needed for a successful career with Tesla, Inc. A formal application and interview process is required for acceptance into this course/program.

4 Units

45 Lecture hours/81 Lab hours

# **NEW**

**NONCREDIT** 

**PROGRAMS** 

AND

**COURSES** 



Division of Continuing Education

## NONCREDIT CERTIFICATE OF COMPLETION

The Noncredit Certificate of Completion in Social Services Career Preparation is a pre-employment training program that provides foundational knowledge and practical skills for successful entry into rewarding careers in the social services sector. Students are introduced to essential principles and best practices of client-centered case management and gain contextualized job training that includes trauma-informed care, mental health first aid, and human management integration system.

To acquire the **Noncredit Certificate of Completion in Social Services Career Preparation**, it is required to complete the following courses:

<b>Required Courses</b>	Units	
NBIZ 020	Workforce Preparation: 21st Century Skills	0
NBSS 060	Social Services Career Exploration	0

## NBAS 026 Math Analysis

This course covers the first half of Math Analysis, a year-long study of elementary functions (including linear, quadratic, polynomial, rational, exponential, and logarithmic functions), trigonometry (including trigonometric functions, analytical geometry, sequences and series), conics, and related topics that provide students with the kind of preparation required for college mathematics. The course may be used for the purpose of helping students make up credit and/or improve the grade from a prior attempt at the course. The course covers portions of the Common Core State Standards domains that fall under the conceptual categories of Number and Quantity, Algebra, Functions, Modeling, and Geometry, including Seeing Structure in Expressions, Arithmetic with Polynomials and Rational Expressions, Creating Equations, Interpreting Functions, Building Functions, Trigonometric Functions, Reasoning with Equations and Inequalities, and The Complex Number System. 0 Units

#### 70 to 90 Lecture hours

#### **NBAS 027**

#### Trigonometry

This course covers the second half of Math Analysis, a year-long study of elementary functions (including linear, quadratic, polynomial, rational, exponential, and logarithmic functions), trigonometry (including trigonometric functions, analytical geometry, sequences and series), conics, and related topics that provide students with the kind of preparation required for college mathematics. The course may be used for the purpose of helping students make up credit and/or improve the grade from a prior attempt at the course. The course covers portions of the Common Core State Standards domains that fall under the conceptual categories of Number and Quantity, Algebra, Functions, Modeling, and Geometry, including Seeing Structure in Expressions, Arithmetic with Polynomials and Rational Expressions, Creating Equations, Interpreting Functions, Building Functions, Trigonometric Functions, Reasoning with Equations and Inequalities, and The Complex Number System.

0 Units 70 to 90 Lecture hours

## **NBAS 028**

#### Precalculus with Trigonometry Part A

This course covers the first half of Precalculus with Trigonometry, a year-long study of elementary functions (including linear, quadratic, polynomial, rational, exponential, and logarithmic functions), trigonometry (including trigonometric functions, analytical geometry, linear systems, vectors, sequences, and series), conics, and related topics that provide students with the kind of preparation required for college mathematics. The course may be used for the purpose of helping students make up credit and/or improve the grade from a prior attempt at the course. The course covers portions of the Common Core State Standards domains that fall under the conceptual categories of Number and Quantity, Algebra, Functions, Modeling, and Geometry, including Seeing Structure in Expressions, Arithmetic with Polynomials and Rational Expressions, Creating Equations, Interpreting Functions, Building Functions, Trigonometric Functions, Reasoning with Equations and Inequalities, and The Complex Number System. 0 Units

#### 70 to 90 Lecture hours

#### **NBAS 029**

# Precalculus with Trigonometry Part B

This course covers the second half of Precalculus with Trigonometry, a year-long study of elementary functions (including linear, quadratic, polynomial, rational, exponential, and logarithmic functions), trigonometry (including trigonometric functions, analytical geometry, linear systems, vectors, sequences, and series), conics, and related topics that provide students with the kind of preparation required for college mathematics. The course may be used for the purpose of helping students make up credit and/or improve the grade from a prior attempt at the course. The course covers portions of the Common Core State Standards domains that fall under the conceptual categories of Number and Quantity, Algebra, Functions, Modeling, and Geometry, including Seeing Structure in Expressions, Arithmetic with Polynomials and Rational Expressions, Creating Equations, Interpreting Functions, Building Functions, Trigonometric Functions, Reasoning with Equations and Inequalities, and The Complex Number System. 0 Units

70 to 90 Lecture hours

