

This publication includes changes and corrections to the 2023-2024 Rend Lake College Catalog.

ADDENDUM

COLLEGE MISSION

MISSION

The mission statement is the essential purpose of the college from which all college activities originate:

Rend Lake College provides educational opportunities across cultural and economic boundaries to the diverse student population we serve. We are committed to our students' success in achieving their educational goals and to meeting our community-focused program objectives. With Rend Lake College, student journeys start here.

Value Statement:

In serving our students and community, we are student-focused, authentic, and resourceful.

INSTITUTIONAL OUTCOMES

Rend Lake College has adopted four essential learner outcomes, fundamental learning objectives embedded in every program of study, that all degree-completing students should be able to demonstrate. They are as follows:

Critical Thinking: Demonstrate the ability to think in a self-directed, reflective manner when understanding, evaluating and solving problems.

Problem-Solving: Demonstrate the ability to resolve computational problems.

Oral Communication: Demonstrate the ability to communicate clearly, concisely, and effectively through verbal and non-verbal language.

Written Communication: Demonstrate the ability to communicate clearly, concisely, and effectively through written language.

WHO WE ARE

The College history defines the College from the perspective of organization and assets; however, the personnel who operate within the college systems and manage those assets are the primary element for successful education. Rend Lake College believes all employees, regardless of their job description, are part of each student's education. Administrative, community outreach, student service, and physical plant personnel all support the student learning process. Our instructors are primary points of contact with the Rend Lake College educational experience. These educators are generally organized into four divisions: Allied Health; Applied Science & Technology; Arts and Sciences; and Community & Corporate Education. Whether in a supporting role or as a direct point of contact, each college employee draws upon professional expertise and academic accomplishment to promote the success of every student.

WHO WE SERVE

Student-centered colleges are best defined by who they serve. An understanding of the distinctiveness of our College's student population allows us to effectively meet the goals of our programs and succeed in our mission.

Diversity of Culture

Traditionally, Rend Lake College can be characterized as serving a relatively homogenous, rural, small-town culture. This population's cultural distinctiveness is centered on age and socioeconomic status more than diverse ethnic origin. As global connectivity broadens, so too do Rend Lake College's program offerings. We continue to serve groups with diverse characteristics, such as:

• Age	• Disability	• Gender
 National origin 	Race/ethnicity	 Religion

- National origin
- Race/ethnicity
- Socioeconomic status Special populations

Diversity of Purpose

Rend Lake College provides general, transfer, and career technical education to both traditional and non-traditional students through the use of reciprocal agreements; regional, state, and national education programs; dual-credit high school classes; and the endorsement of international students to help broaden our base. Rend Lake College offers skill and trade opportunities for students seeking employment and economic mobility. Additionally, Rend Lake College provides professional and personal fulfillment as well as growth through community and corporate education classes.

Often, an individual's purpose for engaging with the college is a combination of factors such as:

- Discovery / Curiosity
- Educational Requirements
- Enrichment / Hobby • Lifelong Learning
 - New / Enhanced Skills
- Retraining
- Healthy Lifestyle

Definition of Equity

Equity is the guarantee of fair treatment, access, opportunity and advancement for all students, faculty, and staff, while at the same time striving to identify and eliminate barriers that have prevented the full participation of some groups.

Neurodiversity Statement

Rend Lake College values neurodiversity, including conditions such as autism, ADHD, dyslexia, and dyspraxia, as a crucial aspect of human variation that enhances our educational journey and community. Our commitment is to foster a supportive environment where neurodivergent individuals are acknowledged, respected, and enabled to unleash their full capabilities.

Working together, we can create a brighter future for all individuals, including those with neurodivergent conditions, by providing them with the necessary resources, support, and opportunities for success in and out of the classroom. Our commitment to embracing neurodiversity and learning more about its impact will bring positive outcomes for everyone involved.

COMMON OUTCOME

Regardless of the diverse cultural backgrounds, purposes or origins of our constituents, Rend Lake College serves each individual equally with an open admission policy and an opportunity for success. Furthermore, Rend Lake College is united by the shared commitment of students, faculty, staff, and community to meet its institutional, educational, and program objectives.

CHILD DEVELOPMENT ASSOCIATE CREDENTIAL

Based upon recommendation by the Illinois Community College Board, Rend Lake College awards credits to those students who have obtained a Child Development Associate Credential. A student must present the proper documentation of an active Child Development Associate Credential to the Registrar. The Child Development Associate Credential is based upon a core set of competency standards which are aligned with the following courses for which a student will receive credit:

LANGUAGE REVISION (EFFECTIVE 5/1/2023)

GENERAL EDUCATION STATEMENT

Our students are expected to demonstrate the competencies outlined in the institution-wide learner outcomes (critical thinking, problem-solving, oral communication, and written communication) as well as demonstrate learning the fundamental vocabulary, concepts, and proficiencies of their specific programs. In addition to the college's institutional outcomes, three other outcomes articulate the expected general education for all students and are integrated in both the curricular and cocurricular student experience.

Connections – Connect with the college community and its educational resources to foster professional success and personal well-being.

Multiculturalism – Students will Demonstrate the ability to successfully live and work in a multicultural world.

Authenticity – Students will Demonstrate a commitment to standards, codes of conduct, and core principles that define successful professionals within their chosen academic field of study or career path.

WITHDRAWAL OF AAS DEGREE IN ARCHITECTURAL TECHNOLOGY (EFFECTIVE 3/1/2023)

ARCHITECTURAL TECHNOLOGY

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

This is a two-year program leading to an Associate in Applied Science Degree in Architectural Technology. The curriculum has a 2+2 articulation agreement with Southern Illinois University Carbondale's Architectural Studies bachelor's degree program. The Architectural Technology program will provide students the necessary skills and abilities to enter the workforce in technical support positions in architectural- or construction-related fields. **Total = 69 Hours**

-Fall Semest	er	-Cr. Hrs.
□ ARCH 1211	Intro to Architectural Theory / History	
	Intro to Architectural Drawing	5
	Intro to Computer Aided Drafting	
	Distantia and Canada sitian 11	2
LI ENGL HUI	Knetoric and Composition F	
□ HEA 1101	Health Education	2
	Elective – Math/Science	<u>3-5</u>
		18-20
-Spring Sem	ester	
□ ARCH 1209	Architectural Building Technology	
□ ARCH 2207	Architectural Rendering	4
CAD 1203	CAD Applications – Architectural	2
CAD 1208	CAD Applications – 3D	
D	Elective – Math/Science	3-5
		15-17
-Summer Te	rm	
□ ARCH 2215	Mechanical / Electrical Systems	
-Fall Semest	er	
□ ARCH 1202	Architectural Materials & Methods	5
ARCH 2203	Site Survevina	4

□ ARCH 2203 Site Surveying 4
 □ ARCH 2206 Architectural Drawing / Design 4
 □ COMM 1101 Principles of Effective Speaking <u>3</u>

Continued at top of next page

Spring Semester

□ ARCH 2216	Architectural / Engineering Project	4
□ ARCH 2218	Site Planning	
□ ARCH 2226	Architectural Doc & Cost Estimating	
□ ARCH 2227	Architectural Building Codes	
□ ARCH 2230	Portfolio Review	1
□	Elective – General Education ⁻²	

+ Prerequisite course(s) may be required based on test scores.

² Rhetoric and Composition II (ENGL 1102) will be required for most baccalaureate-transfer programs.

SUGGESTED GENERAL EDUCATION ELECTIVES:

-MATH:

— MATH 1107 Contemporary College Mathematics ⁺	
MATH 1108 College Algebra	
MATH 1109 Plane Trigonometry	
MATH 1110 Precalculus	5
MATH 1201 Technical Mathematics ²	
	~
—PHSC 1101 Physical Science	`
PHSC 1101 Physical Science PHY 1101 College Physics I	5
PHSC 1101 Physical Science PHY 1101 College Physics I PHY 1102 College Physics II	
PHSC 1101 Physical Science PHY 1101 College Physics I PHY 1102 College Physics II PHY 1102 Technical Physics I ²	5 5 5 5

WITHDRAWAL OF CERTIFICATE IN ARCHITECTURAL TECHNOLOGY (EFFECTIVE 3/1/2023)

ARCHITECTURAL TECHNOLOGY

Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

--→ Total = 30 Hours

-Fall Semest	er	Cr. Hrs.
-ARCH 1205	Intro to Architectural Drawing	
□ ARCH 2203	Site Surveying	4
□ ARCH 2215	Mechanical / Electrical Systems	
□ ARCH 2225	Construction Systems	
□ CAD 1201	Intro to Computer-Aided Drafting	<u></u>
		18
-Spring Sem	ester	
□ ARCH 1209	Architectural Building Technology	
□ ARCH 2216	Architectural / Engineering Projects	4
□ ARCH 2218	Site Planning	
□ CAD 1203	CAD Applications – Architectural	<u>2</u>
		12

New Digital Agriculture AAS Degree (Effective 6/14/2023)

DIGITAL AGRICULTURE

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

This program is designed to prepare students for employment in the field of digital agriculture. The AAS degree incorporates both skillsets of Agronomy and Computer Science to provide knowledge and involvement in agriculture technology and computer programming. The AAS degree also prepares students for upward mobility with the industry through curriculum beyond technical knowledge only. Classroom instruction and hands-on training will be conducted utilizing agriculture computer software, GPS hardware, and drone technology used in the agriculture industry. Students will learn how to effectively implement farm software programs within the farm and industry settings, as well as prepare for a career in Agricultural Technical Services. ► Total = 64 Hours

First Semest	ter	Cr. Hrs.
CSCI1102	Intro To Computers With Business Applica	tions 3
🗆 CSCI 1104	Intro To Programming	4
🗆 MATH 1108	College Algebra	3
🗆 AGRI 1161	Soil Science	4
🗆 AGRI 1214	Intro To Digital Farm Management	_3
		17
Second Sem	ester	Cr. Hrs.
🗆 CSCI 2100	Discrete Structures	3
🗆 CSCI 2209	System Analysis and Design	3
🗆 AGRI 1141	Agriculture Economics	3
🗆 ENGL 1101	Rhetoric & Composition	3
🗆 MATH 1109	Plane Trigonometry	<u>3</u>
		15
Third Seme	ster	Cr. Hrs.
🗆 AGRI 1263	Crop Science	4
🗆 CSCI 1260	Intro to Programming .Net	3
🗆 AGRI 1285	Agriculture Technologies	3
□ COMM 1101	Principles of Effective Speaking	3
PSYC 2101	Intro to Psychology	<u>3</u>
		16
Fourth Semester		Cr. Hrs.
🗆 AGRI 2207	Farm Data Management and Analytics	3
🗆 BOT 1101	Plants and Society	4
🗆 CSCI 2104	Advanced Data Structures	4
🗆 AGRI 1262	Agriculture Chemicals	3
🗆 AOT 1203	Field Computer Systems	<u>2</u>
		16
Recommend	led Course	
🗆 UAS 1600	UAS Law/Test Prep/Flight	2

New Digital Agriculture Certificate (Effective 6/14/2023)

DIGITAL AGRICULTURE

Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

This program is designed to prepare a student with the basic knowledge of computer science and the technical skills of Agronomy. Classroom instruction and hands-on training will be conducted utilizing agriculture computer software, GPS hardware, and drone technology used in the agriculture industry. Students will learn how to efficiently create farm databases, assign tasks, create variable rate prescriptions, document applications, and learn the fundamentals of Ag and Computer Science. ► Total = 18 Hours

First Semes	ter Cr. 1	Hrs.
CSCI1102	Intro To Computers With Business Applications	3
🗆 CSCI 1104	Intro To Programming	4
🗆 AGRI 1285	Agriculture Technologies	3
🗆 AGRI 1214	Intro To Digital Farm Management	_3
		13

Second Semester

Cr. Hrs.

🗆 AGRI 2207	Farm Data Management and Analytics	3
🗆 AOT 1203	Field Computer Systems	<u>2</u>
		15
Recommen	nded Course	
🗆 UAS 1600	UAS Law/Test Prep/Flight	2

New Course: AGRI 1214 (Effective 8/1/2023)

AGRI 1214 – Intro to Digital Farm Management (3)

This course is designed to give students basic knowledge of various digital agriculture platforms to help carry out important farm management decisions based off of crop history and future planning. Projects will be completed utilizing Ag Technology in the classroom and in the field. Lecture 1 hours. Lab 4 hours.

New Course: AGRI 2207 (Effective 8/1/2023)

AGRI 2207 Farm Data Management & Analytics (3)

This course is designed to give students basic knowledge of gathering farm and cropping data, while utilizing it to improve environmental health, increase yield, and promote sustainable agriculture utilizing Precision Agriculture. Lecture 1 hours. Lab 4 hours.

WITHDRAWAL OF ARCHITECTURAL TECHNOLOGY COURSES (EFFECTIVE 3/1/2023)

ARCH 1202 – Architectural Materials and Methods (5)

Prerequisite: ARCH 1209 or consent of instructor.

Through the use of architectural drafting, this course provides the student with the knowledge of current materials and methods of construction, their physical nature, adaptability and limitations as they pertain to masonry, reinforced concrete and steel. Lecture 3 hours. Lab 4 hours.

ARCH 1205 – Introduction to Architectural Drawing (5)

An introduction to the basic principles related to the geometry of architectural drawing, including sketching, orthographic projection, axonometric drawing, oblique drawing and perspective drawing. Drafted and freehand drawings of actual and proposed environments are considered, including analysis of light, shade, materials, textures and various contextual elements. Lecture 3 hours. Lab 4 hours.

ARCH 1208 – Architectural Drawing (3)

An introduction to the basic principles in the geometry of architectural drawing including sketching, orthographic projection, axonometric drawings and perspective drawing. Lecture 1 hour. Lab 4 hours.

ARCH 1211 – Introduction to Architectural Theory / History (3)

An introductory course to the profession of architecture through an examination of recurrent themes in the history of architecture, with emphasis upon the problems and achievements in the art of designing the built environment. Lecture 3 hours.

ARCH 2203 – Site Surveying (4)

Upon completion of this course, the student will be able to provide line and grade construction layout using the tape, level and transit. Lecture 3 hours. Lab 2 hours.

ARCH 2206 – Architectural Drawing / Design (4)

Prerequisites: ARCH 1205, ARCH 1211 and CAD 1201

An introduction to the fundamentals of architectural design: object, perception and light. Vocabulary: figure-ground composition, balance and movement, proportion and rhythm, mass-space organization, multiple viewing positions, one- and two-point perspective, orthographic projection and freehand drawing. Lecture 1 hour. Lab 6 hours.

ARCH 2207 – Architectural Rendering (4)

Materials, methods, and techniques in architectural graphics through sketching and presentation drawing in various media, theory and use of material, and delineation in various color media. Digital rendering techniques to achieve semi-photorealism. Lecture 2 hours. Lab 4 hours.

ARCH 2210 – Architectural Internship (3)

Prerequisite: Approval from Dean and Minimum 2.0 GPA

This course provides students an opportunity to gain valuable experience in their field of study while performing on-the-job training. The learning experience will be supervised by both a college faculty/staff member and the employer. Lab 15 hours.

ARCH 2212 – Architectural Project (5)

Prerequisites: ARCH 1101, 1205, 2206, 2207; CAD 1201, or consent of Dean

This course familiarizes the student with all phases of the architectural process while designing a nonresidential project and preparing a working drawing package. Lecture 2 hours. Lab 6 hours.

ARCH 2214 – Cost Estimating (2)

This course is designed to provide the student with a basic knowledge and understanding of making quantity takeoffs and working estimates of construction projects. Lecture 2 hours.

ARCH 2216 – Architectural / Engineering Project (4)

The study of materials and practices in document preparation for buildings using masonry, steel, and reinforced concrete construction. Investigation and use of local, state and federal codes regulating health and safety. Investigation of construction techniques relating to criteria of permanence, low maintenance and budget requirements. Produce a set of working drawings for a two-level, hight commercial/industrial building. Lecture 2 hours. Lab hours 4 hours.

ARCH 2218 - Site Planning (3)

This course is designed to study the considerations of site selection, including survey computations, contours, computations of cut and fill, drainage and grading. Lecture 2 hours. Lab 2 hours.

ARCH 2220 – Structural Design and Analysis (4)

Prerequisites: ARCH 1101, 1205, 2206, 2207; CAD 1201, or consent of Dean An introduction to the structural design process covering the use of mathematics and physics to determine loads, resolution of force systems and equilibrium analysis, structural properties of shapes and materials, shear and bending movements, deflection, column theory and awareness of structural system behavior. Lecture 4 hours.

ARCH 2224 – Construction Documents (2)

This course will familiarize the student with traditional practices for architectural construction documents, utilizing the latest recommendations of the Construction Specification Institute and the American Institute of Architects. Lecture 2 hours.

ARCH 2225 – Construction Systems (4)

An overview of the major construction materials and methods utilized in contemporary construction, including hands-on application. The course will enable an architectural technology student to comprehend the relationship between architectural drawing and actual construction. Lecture 2 hours. Lab 4 hours.

ARCH 2230 - Portfolio Review (1)

Prerequisite: Consent of instructor

Students will explore presentation and interviewing techniques used to find employment. Grooming of student portfolios, résumés, cover letters and other business correspondence is stressed. Oral skills also are reinforced, effective presentation skills and project refinements are covered. Students learn the components of business management. Basic record-keeping, licensing, banking, eopyrights, contracts and business ethics are covered. Lecture 1 hour.

New Course: WELD 1201 (Effective 1/1/2024)

WELD 1201 - Oxy-Acetylene Welding (1)

This course is designed to give the student an overview of of oxy-acetylene welding processes used in general industry, construction, and fabrication industries. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1202 (Effective 1/1/2024)

WELD 1202 – Structural Shielded Metal Arc Welding (SMAW) (1)

This course is designed to give the student an overview of the shielded metal arc welding processes used in general industry, construction, and fabrication industries. In addition, concentrated instruction in the use of different welding electrodes, electrode identification, electrode storage and basic welding symbols will be provided. Practical applications of AC/DC theory in the area of fillet joints in th vertical up and overhead positions will be included. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1203 (Effective 1/1/2024)

WELD 1203 – Gas Metal Arc Welding (GMAW) (1)

This course is designed to give the student an overview of Gas Metal and Gas Tungsten Arc Welding processes used in general industry, construction, and fabrication industries with a concentration in auto body and production manufacturing processes where light gauge metals are used. The ability of GMAW and GTAW processes to seld nonferrous materials with high quality results will be stressed. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1204 (Effective 1/1/2024)

WELD 1204 – Gas Tungsten Arc Welding (GTAW) (1)

This course provides the student with a thorough knowledge of gas tungsten arc welding fundamentals, arc characteristics and welding safety. The course will include lecture and lab activities on the welding characteristics of carbon steel, stainless steel and aluminum. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1205 (Effective 9/15/2023)

WELD 1205 - SMAW II (1)

Prerequisite: WELD 1201 or consent of instructor

Concentrated instruction in using different welding electrodes, electrode identification, and basic welding symbols. The course provides practical applications of AC/DC theory in fillet welds in the horizontal position. Students will be required to demonstrate course competencies through multiple assessments that simulate AWS code that is expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1206 (Effective 9/15/2023)

WELD 1206 - SMAW III (1)

Prerequisite: WELD 1205 or consent of instructor

Concentrated instruction in using different welding electrodes, electrode identification, and basic welding symbols. The course provides practical applications of AC/DC theory in the area of fillet joints in the vertical up position. Students must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1207 (Effective 9/15/2023)

WELD 1207 - SMAW IV (1)

Prerequisite: WELD 1202 or consent of instructor

Concentrated instruction in using different welding electrodes, electrode identification, and basic welding symbols. The course provides practical applications of AC/DC theory in the area of fillet joints in the overhead position. Students must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1208 (Effective 9/15/2023)

WELD 1208 - SMAW V (1)

Prerequisite: WELD 1207 or consent of instructor

Concentrated instruction in using different welding electrodes, electrode identification, and basic welding symbols. The course provides practical applications of AC/DC theory in the area of fillet joints in the vertical down position. Students must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1209 (Effective 9/15/2023)

WELD 1209 - GMAW II (1)

Prerequisite: WELD 1203 or consent of instructor

Concentrated instruction in Gas Metal Arc Welding for use in auto body and production manufacturing processes where light gauge metals are used. The ability of GMAW processes to weld ferrous materials in the horizontal and vertical up positions with high-quality results will be stressed. Students will learn in a combination of theoretical and practical sessions. Students must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1210 (Effective 9/15/2023)

WELD 1210 - GMAW III (1)

Prerequisite: WELD 1209 or consent of instructor

Concentrated instruction in Gas Metal Arc Welding for use in auto body and production manufacturing processes. The ability of GMAW processes to weld ferrous materials in the overhead and vertical down positions with high-quality results will be stressed. Students will learn in a combination of theoretical and practical sessions. Students must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1211 (Effective 9/15/2023)

WELD 1211 - GMAW IV (1)

Prerequisite: WELD 1210 or consent of instructor

Concentrated instruction in Gas Metal Arc Welding for use in auto body and production manufacturing processes. The ability of GMAW processes to weld ferrous materials in the horizontal, vertical, and overhead vee groove positions with high-quality results will be stressed. Students will learn in a combination of theoretical and practical sessions. Students must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: WELD 1212 (Effective 9/15/2023)

WELD 1212 - GTAW II (1)

Prerequisite: WELD 1204 or consent of instructor

Concentrated instruction in gas tungsten arc welding (GTAW), which is also known as tungsten inert gas (TIG) welding. Students will learn the intermediate principles and techniques of GTAW in a combination of theoretical and practical sessions. Emphasis will be placed on safety, welding quality, and proper welding procedures. The student must demonstrate course competencies through multiple assessments that simulate AWS code expected within the industry. Lecture 0.5 hours. Lab 1 hours.

New Course: IST 1201 (Effective 5/1/2023)

IST 1201 – Industrial Tools & Fabrication (3)

This course will introduce students to the most common hand tools used in industry along with common fasteners used in a production environment and common pneumatic connections. Emphasis is placed on safety and correct use and selection of tools and fasteners along with assembly skills. Additionally, basic mechanical systems will be introduced such as levers, pulleys, gears, and conceptual topics like force, torque, and velocity. Lecture 2 hours. Lab 2 hours.

Modified Course: LEAD 1600 (Effective 4/1/2023)

LEAD 1600 – Leadership (.5-4)

This course provides an opportunity to examine leadership theories, develop a personal understanding of leadership, and build leadership skills. The essential skills of effective leaders, such as communication, team building, motivation, coaching and vision are explored. Student will be encouraged to examine their own leadership potential as they assess their skills and examine different leadership concepts. Lecture 5-4 2 hours. Repeat: 3