



ALKIMI UNIVERSITY
Merrow Falls • Founded 1891

Undergraduate Catalog

2026–27 • Selected programs and course descriptions

EDITION
2026–27 Edition

FOR
Undergraduate students, advisors, and faculty

EFFECTIVE
Effective August 1, 2026

MAINTAINED BY
Office of the Registrar

FICTIONAL INSTITUTION — DEMONSTRATION DOCUMENT

Alkimi University is a fictional institution created by Alkimi AI to demonstrate its products. It does not admit students, grant degrees, employ faculty, or accept payments. All people, places, policies, and figures in this document are invented.

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About this catalog

This catalog is the official undergraduate publication of Alkimi University for the 2026–27 academic year. It sets forth the degree requirements, academic policies, Core curriculum regulations, and program specifications governing undergraduate education at the university.

Catalog Year Rules: Undergraduate students entering Alkimi University during the 2026–27 academic year are subject to the degree and graduation requirements outlined in this catalog. A student who maintains continuous enrollment may graduate under the requirements of this catalog or may formally elect to adopt the requirements of any subsequent catalog published while they are continuously enrolled. Students who interrupt their enrollment for two or more consecutive regular semesters without an approved leave of absence are readmitted under the catalog in effect at the time of readmission.

Selected Programs Edition: This publication contains selected undergraduate degree programs offered across the College of Arts & Sciences, the School of Business, the School of Engineering & Computing, and the School of Nursing & Health Sciences. For graduate degree regulations, see the *Graduate Student & Teaching Assistant Handbook* (AU-GH-2026). For daily campus policies and student life codes, consult the *Student Handbook* (AU-SH-2026).

How to Cite This Document: Policies and curricular requirements in this catalog should be cited using the publication name and specific section number, such as *Undergraduate Catalog* §4.3 or *Undergraduate Catalog* §7.2.

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CHAPTER 1

Academic Calendar Summary

§1.1 Fall Semester 2026 Key Dates

The Fall 2026 semester begins classes on Wednesday, August 26, 2026, and concludes with final examinations ending on Thursday, December 17, 2026. All deadlines close at 11:59 p.m. Eastern Time unless otherwise specified.

Fall 2026 Academic Dates

- **Friday, August 14, 2026:** Fall tuition and fee payment due in full or first monthly payment plan installment.
- **Monday, August 17, 2026:** New faculty orientation begins.
- **Saturday, August 22, 2026:** Residence halls open for new students; Welcome Week commences.
- **Wednesday, August 26, 2026:** First day of classes for all undergraduate programs.
- **Wednesday, September 2, 2026:** Last day to add a course or change course sections via AlkimiHub.
- **Monday, September 7, 2026:** Labor Day holiday; no classes held, university offices closed.
- **Wednesday, September 9, 2026:** Census date: last day to drop a course without a “W” grade; deadline for 100% tuition refund.
- **Wednesday, September 16, 2026:** 50% tuition refund deadline for total withdrawal.
- **Wednesday, September 23, 2026:** 25% tuition refund deadline; no refunds issued after this date.
- **Thursday, October 1, 2026:** FAFSA and CSS Profile applications open for 2027–28 academic aid.
- **Monday, October 12 – Tuesday, October 13, 2026:** Fall break; no classes held, university offices open.
- **Wednesday, October 14, 2026:** Classes resume at 8:00 a.m.
- **Friday, October 16, 2026:** Midterm grades due in AlkimiHub for all 100- and 200-level courses.
- **Monday, November 2, 2026:** Spring 2027 registration opens by assigned credit standing.
- **Friday, November 6, 2026:** Last day to withdraw from an individual course with a recorded “W” grade; deadline to elect Pass/No Pass grading option.
- **Wednesday, November 25 – Friday, November 27, 2026:** Thanksgiving break; no classes held, university offices closed Thursday and Friday.
- **Monday, November 30, 2026:** Classes resume at 8:00 a.m.
- **Wednesday, December 9, 2026:** Last day of fall classes.
- **Thursday, December 10, 2026:** Reading day; no examinations or mandatory class meetings permitted.
- **Friday, December 11 – Thursday, December 17, 2026:** Final examination period.
- **Monday, December 21, 2026:** Final grades due at 12:00 p.m. (noon).

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§1.2 Spring Semester 2027 Key Dates

The Spring 2027 semester begins classes on Tuesday, January 19, 2027, and concludes with University Commencement on Saturday, May 15, 2027.

Spring 2027 Academic Dates

- **Friday, January 8, 2027:** Spring tuition and fee payment due in full or first monthly payment installment.
- **Friday, January 15, 2027:** Residence halls reopen for returning and new spring students at 9:00 a.m.
- **Monday, January 18, 2027:** Martin Luther King Jr. Day; no classes held, university offices closed.
- **Tuesday, January 19, 2027:** First day of classes for the Spring semester.
- **Tuesday, January 26, 2027:** Last day to add a course or change sections.
- **Tuesday, February 2, 2027:** Census date: last day to drop a course without a “W” grade; deadline for 100% tuition refund.
- **Tuesday, February 9, 2027:** 50% tuition refund deadline for total withdrawal.
- **Tuesday, February 16, 2027:** 25% tuition refund deadline; no refunds issued after this date.
- **Monday, March 1, 2027:** Priority FAFSA and CSS Profile submission deadline for returning students.
- **Friday, March 12, 2027:** Midterm grades due in AlkimiHub for all 100- and 200-level courses.
- **Monday, March 15 – Friday, March 19, 2027:** Spring break; no classes held, administrative offices open.
- **Monday, March 22, 2027:** Classes resume at 8:00 a.m.
- **Thursday, April 1, 2027:** Last day to withdraw from an individual course with a recorded “W” grade; deadline to elect Pass/No Pass grading option.
- **Monday, April 5, 2027:** Fall 2027 registration opens by assigned credit standing.
- **Friday, April 23, 2027:** Undergraduate Research Symposium; morning classes before 1:00 p.m. meet as scheduled; afternoon classes excused.
- **Wednesday, May 5, 2027:** Last day of spring classes.
- **Thursday, May 6, 2027:** Reading day; no examinations or mandatory class meetings permitted.
- **Friday, May 7 – Thursday, May 13, 2027:** Final examination period.
- **Saturday, May 15, 2027:** University Commencement ceremony.
- **Tuesday, May 18, 2027:** Final grades due at 12:00 p.m. (noon).

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§1.3 Summer Sessions 2027 Key Dates

Alkimi University offers two five-week intensive summer sessions providing accelerated undergraduate coursework across foundational Core subjects and major electives.

- **Monday, May 24, 2027:** Summer Session I begins.
- **Monday, May 31, 2027:** Memorial Day; no classes held, university offices closed.
- **Friday, June 25, 2027:** Summer Session I final examinations and session conclusion.
- **Monday, June 28, 2027:** Summer Session II begins.
- **Monday, July 5, 2027:** Independence Day observed; no classes held, university offices closed.
- **Friday, August 6, 2027:** Summer Session II final examinations and session conclusion.

Summer courses permit registration up to a maximum of 7 credits per session (14 credits across both sessions). Full payment for Summer Session I is due May 14, 2027; Summer Session II payment is due June 18, 2027.

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§1.4 Deadlines, Census Date, and Tuition Refund Policy

Course registration adjustments affect transcript records, financial liability, and financial aid eligibility. Students must observe the strict institutional deadlines published in the academic calendar:

1. **Add/Drop Period (First Week):** Through Wednesday, September 2, 2026 (Fall) or Tuesday, January 26, 2027 (Spring), students may add open classes or exchange sections online via AlkimiHub without penalty or notation.
2. **Census Date (End of Second Week):** Wednesday, September 9, 2026 (Fall) and Tuesday, February 2, 2027 (Spring) mark the official census date. Dropping a course on or before the census date removes the course entirely from the student transcript and provides a 100% refund of applicable tuition charges.
3. **Course Withdrawal Window (Weeks 3 through 10):** Courses dropped after the census date through Friday, November 6, 2026 (Fall) or Thursday, April 1, 2027 (Spring) appear permanently on the academic transcript with a grade of “W”. A grade of “W” carries 0.0 quality points and does not factor into the grade point average, but counts as attempted credits toward Satisfactory Academic Progress (SAP).
4. **Late Withdrawal:** After the tenth week, withdrawals are granted solely for documented extraordinary extenuating circumstances (such as medical hospitalization or family emergency) through a formal petition approved by the Office of the Dean of Students.

Withdrawal Period	Tuition Refund Percentage	Transcript Notation
On or before Census Date (Day 1–14)	100% tuition refund	No record on transcript
End of 3rd Week (Day 15–21)	50% tuition refund	Grade of “W” recorded
End of 4th Week (Day 22–28)	25% tuition refund	Grade of “W” recorded
After 4th Week through Week 10	0% refund (full liability)	Grade of “W” recorded
After Week 10	0% refund	Extenuating petition only (“W” or “F”)

Refund schedules apply strictly to tuition charges. Student mandatory fees (\$1,150 per year) and course laboratory fees are non-refundable after the first day of classes. Complete withdrawals by federal Title IV financial aid recipients trigger a federal Return of Title IV Funds calculation administered by the Office of Financial Aid.

Contact: Student Accounts (Bursar) · Alkimi One Stop, Harlan Hall 120 · (555) 555-0165 · studentaccounts@university.alkimi.ai

CHAPTER 2

Degree Requirements

§2.1 Total Credits and Residency Requirement

To qualify for a baccalaureate degree from Alkimi University—Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Business Administration (BBA)—a student must satisfy all curricular requirements and earn a minimum of 120 semester credit hours.

Institutional Residency Requirement: In accordance with university academic policy, at least 30 of the final 45 semester credit hours applied toward the degree must be earned through direct coursework completed at Alkimi University. Credits earned through Advanced Placement (AP), International Baccalaureate (IB), institutional challenge examinations, or transfer credits from other accredited colleges or universities cannot be counted toward satisfying this 30-credit senior residency rule.

Furthermore, students pursuing a major at Alkimi University must complete a minimum of 50 percent of their major-specific course requirements in residence at Alkimi University. Academic departments reserve the right to designate specific capstone, advanced laboratory, and upper-division seminar courses that must be completed in residence regardless of transfer credit allowances.

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§2.2 Grade Point Average and Academic Standing

Graduation from Alkimi University requires meeting two distinct minimum grade point average benchmarks:

1. **Cumulative GPA:** A minimum cumulative grade point average of 2.000 on a 4.000 scale for all coursework completed at Alkimi University.
2. **Major GPA:** A minimum grade point average of 2.000 in all courses designated as satisfying major requirements, including departmental prerequisite courses. Certain selective professional degree programs enforce higher minimum major GPA standards (for example, the Bachelor of Science in Nursing requires a minimum cumulative GPA of 2.750 and a minimum grade of C+ in all nursing courses, as specified in §7.3).

Academic Good Standing: An undergraduate student maintaining a cumulative GPA of 2.000 or higher is considered in academic good standing.

- **Academic Probation:** Any student whose cumulative GPA falls below 2.000 at the close of any regular semester is automatically placed on Academic Probation. While on probation, a student is restricted to a maximum registration limit of 15 credits per semester and must complete and adhere to an individualized Academic Success Plan formulated with the Academic Advising Center.
- **Academic Suspension:** A student on academic probation whose term GPA and cumulative GPA both remain below 2.000 at the end of the probationary semester is suspended from the university for one regular semester (fall or spring). Re-enrollment following suspension requires a formal application for readmission submitted to the Academic Standing Committee.
- **Dean's List:** Undergraduate students who earn a term GPA of 3.500 or higher while completing at least 12 graded credit hours (excluding Pass/No Pass courses) with no unresolved grades of Incomplete ("I"), "F", or "NP" are named to the Dean's List for that semester.
- **Latin Honors:** Baccalaureate honors awarded at commencement are determined by cumulative Alkimi University GPA upon graduation, requiring at least 60 graded credits earned at Alkimi:
 - *Cum laude:* 3.500–3.699 cumulative GPA

- *Magna cum laude*: 3.700–3.899 cumulative GPA
- *Summa cum laude*: 3.900–4.000 cumulative GPA

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§2.3 Upper-Division Credit Requirement

Every candidate for a bachelor's degree must complete a minimum of 36 semester credit hours in upper-division coursework, defined as courses numbered 300 to 499. Upper-division courses provide advanced analytical rigor, theoretical depth, methodological training, and specialized research methodologies.

Upper-division courses may be fulfilled through major required courses, concentration tracks, approved academic minors, or general elective offerings. Courses transferred from community colleges or two-year institutions are evaluated as lower-division (100- or 200-level) credit and cannot satisfy the upper-division 36-credit graduation threshold, even if the course topic aligns with an Alkimi University 300-level course.

Contact: Office of the Registrar · Alkimi One Stop, Harlan Hall 120 · (555) 555-0160 · registrar@university.alkimi.ai

§2.4 Double Majors and Academic Minors

Undergraduate students in good academic standing may broaden their intellectual preparation by pursuing double majors or declaring academic minors.

Double Majors: A student may declare two distinct majors within the same baccalaureate degree designation (for example, a Bachelor of Arts with majors in History and English, or a Bachelor of Science with majors in Mathematics and Computer Science). Double majors must satisfy all requirements of both programs, including corequisites and senior capstones.

- **Credit Overlap Restriction:** A maximum of 12 semester credits may overlap between the two majors. Both major departments must approve the double major declaration form submitted to the Office of the Registrar.
- **Single Degree:** A double major results in a single diploma specifying both majors upon completion. Students seeking two distinct degrees simultaneously (such as a BA and a BS) must complete the Dual Degree requirements (§2.5).

Academic Minors: An academic minor represents a structured sequence of study consisting of 18 to 24 semester credits (see Chapter 8 for minor curricula).

- A student may declare up to two academic minors.
- At least 9 credits of the minor must be taken at the upper-division (300-level or above) level.
- No more than 6 credits may overlap between a student's primary major requirements and an academic minor.
- Minors are recorded on the official transcript but do not appear on the graduation diploma.

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§2.5 Second Bachelor's Degree and Dual Degrees

Alkimi University offers two avenues for students pursuing two baccalaureate credentials:

Concurrent Dual Degrees (Simultaneous BA and BS / BBA): Students may pursue two distinct degrees simultaneously (such as a Bachelor of Science in Computer Science and a Bachelor of Arts in Economics) only if they complete a minimum of 150 total semester credit hours—representing at least 30 semester credits beyond the standard 120-credit threshold. The candidate must fulfill all Core curriculum, residency, and major requirements for both independent degrees and obtain prior written authorization from the deans of both participating schools.

Post-Baccalaureate Second Degree: Individuals who have previously earned a bachelor's degree from Alkimi University or another regionally accredited college or university may enroll to pursue a second undergraduate degree. Second-degree candidates must:

1. Complete a minimum of 30 additional semester credit hours in residence at Alkimi University beyond their initial degree.
2. Fulfill all departmental requirements, prerequisites, and capstone experiences for the new major.
3. Alkimi Core requirements are deemed satisfied by the initial bachelor's degree, with the exception of specific quantitative or scientific prerequisites mandated by the major department.

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§2.6 Catalog Year and Expiration Policy

Students entering Alkimi University are assigned the catalog year corresponding to the academic year of their initial matriculation.

1. **Continuous Enrollment:** A student retains catalog rights for six consecutive calendar years from the date of initial matriculation, provided they maintain continuous enrollment (completing at least one course per academic year).
2. **Electing a Newer Catalog:** A student may formally elect to adopt the degree requirements of any subsequent catalog published during their continuous enrollment by submitting a Catalog Change Petition to the Registrar. Once adopted, the student must satisfy all requirements of the chosen newer catalog; requirements cannot be blended or combined across multiple catalog editions.
3. **Six-Year Expiration:** If degree requirements are not completed within six calendar years of initial entry, the student's catalog rights expire, and the student must transition to the catalog in effect during their seventh year of study or the year of anticipated graduation.
4. **Readmitted Students:** Students who break enrollment for two or more regular semesters without an approved Leave of Absence are subject to the catalog requirements in effect at the time of their formal readmission.

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§2.7 Course Overloads and Registration Limits

Full-time undergraduate enrollment is defined as 12 to 18 semester credit hours per regular semester. Standard undergraduate flat-rate tuition covers enrollment within this 12–18 credit band (\$24,300 per semester).

- **Standard Credit Limit:** Students may register for up to 18 credits during regular registration periods without special permission.
- **Course Overload (19 to 21 Credits):** Enrollment in 19, 20, or 21 credits requires a minimum cumulative GPA of 3.300 and the written authorization of the student's primary academic advisor. Overload credits above 18 are billed at the per-credit rate of \$1,620 per credit hour.
- **Maximum Cap:** Under no circumstances may an undergraduate student enroll in more than 21 semester credits in a single fall or spring semester.
- **Summer Session Limits:** Students may enroll in a maximum of 7 credits per summer session (maximum 14 credits total across Summer Session I and Summer Session II).

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§2.8 Grading Scale, Pass/No Pass, and Course Repeats

Alkimi University calculates academic performance on a four-point quality scale. Faculty record letter grades in accordance with the institutional standard:

Letter Grade	Quality Points	Percentage Range	Academic Definition
A	4.0	93–100%	Superior mastery and academic excellence
A-	3.7	90–92%	Excellent performance
B+	3.3	87–89%	Very good comprehension and analysis
B	3.0	83–86%	Good, competent performance
B-	2.7	80–82%	Above-average attainment
C+	2.3	77–79%	Satisfactory performance
C	2.0	73–76%	Average undergraduate attainment
C-	1.7	70–72%	Marginal performance
D+	1.3	67–69%	Poor performance; passing for credit
D	1.0	60–66%	Lowest passing grade; credit awarded
F	0.0	Below 60%	Failure; zero quality points; no credit

Pass/No Pass (P/NP) Option: Undergraduate students in good academic standing may elect to take up to 4 total semester courses (maximum 1 course per semester) on a Pass/No Pass basis.

- A grade of Pass (“P”) is awarded for performance corresponding to a “C-” (70%) or better and awards earned credits without impacting GPA quality points.
- A grade of “NP” is recorded for performance below 70%; no credits are earned, and GPA is unaffected.
- **Restrictions:** The Pass/No Pass option cannot be used for any courses applied toward major requirements, minor requirements, or the Alkimi Core Writing sequence (ENGL 101 and ENGL 102). The deadline to designate a course as P/NP is the end of the tenth week of classes (November 6, 2026 for Fall; April 1, 2027 for Spring).

Course Repeat Policy (Grade Replacement): An undergraduate student may repeat any course once for grade replacement. While both course enrollments and assigned grades remain permanently visible on the official transcript, only the second (later) grade earned is calculated in the cumulative GPA, regardless of whether the second grade is higher or lower than the first attempt. Credit hours for the course are counted only once toward the 120-credit graduation requirement. Courses in which an “XF” grade was assigned for academic dishonesty are not eligible for grade replacement.

Contact: Office of the Registrar · Alkimi One Stop, Harlan Hall 120 · (555) 555-0160 · registrar@university.alkimi.ai

§2.9 Incomplete Grades and Academic Grade Appeals

Incomplete Grade Policy (“I”): The grade of Incomplete (“I”) is an exceptional notation granted at the instructor’s discretion when a student who is currently passing the course experiences an unforeseen, documented extenuating emergency (such as severe illness or trauma) late in the term and is unable to complete a final examination or project.

- **Resolution Timeline:** An Incomplete grade must be formally resolved by the end of the subsequent regular semester (Fall Incompletes resolve by the end of Spring 2027; Spring Incompletes resolve by the end of Fall 2027).
- **Automatic Conversion:** If the remaining coursework is not completed and evaluated by the instructor before the deadline, the “I” grade automatically converts to an irrevocable grade of “F”.

Grade Appeal Procedure: Course grades submitted by instructors are presumed accurate. A student may appeal a final course grade only on grounds of arbitrary grading, mathematical error, or clear deviation from the written syllabus grading criteria.

- **Informal Resolution:** The student must consult the course instructor within 15 calendar days of the grade posting.
- **Formal Appeal Window:** If unresolved, the student must submit a formal written appeal with supporting evidence to the department chair within 30 calendar days after the start of the following regular semester.
- **Dean Review:** If dissatisfied with the chair's determination, the student may appeal to the academic dean of the school within 10 business days of the chair's decision. The dean's determination is final.

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CHAPTER 3

The Alkimi Core Curriculum

§3.1 Overview and Philosophy of the Alkimi Core

The Alkimi Core is an intentional 40-credit general education curriculum required of all undergraduate degree candidates at Alkimi University, regardless of school or major. Designed around inquiry, critical reflection, ethical analysis, and evidence-based problem solving, the Core provides students with foundational competencies across the liberal arts, humanities, social sciences, quantitative disciplines, and empirical sciences.

Core Curricular Area	Required Credits	Approved Course Offerings / Examples
First-Year Seminar (FYS)	3 credits	FYS 101 Alkimi Foundations: Inquiries in Science & Society
College Writing I & II	6 credits	ENGL 101 Academic Writing (3) & ENGL 102 Writing & Research (3)
Quantitative Reasoning	3 credits	MATH 105, MATH 110, MATH 140 Calculus I, or STAT 205
Natural Sciences with Lab	8 credits	BIO 101 (4), CHEM 101 (4), PHYS 111 (4), or GEOL 101 (4)
Social & Behavioral Sciences	6 credits	ECON 201 Microeconomics, PSYC 101, SOC 101, POSC 101
Humanities & Cultural Inquiry	6 credits	HIST 204 American Labor History, ENGL 210, PHIL 101
The Arts & Creative Practice	3 credits	ART 101 Art History, MUS 110 Music Appreciation, THTR 105
Global Perspectives	3 credits	HIST 102 World Civ II, ANTH 105 Cultural Anthro, POSC 220
Integrative Capstone	2 credits	CORE 400 Senior Interdisciplinary Capstone Seminar

Total required Core credits: **40 semester credit hours.**

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§3.2 First-Year Seminar (FYS)

Requirement: 3 semester credits. The First-Year Seminar (FYS 101) introduces new college students to university-level critical thinking, collaborative discussion, scientific literacy, and academic research methods during their first semester of enrollment. Taught by full-time faculty in seminar cohorts limited to 20 students, FYS explores interdisciplinary themes ranging from ethics in technology to environmental justice. All first-time undergraduate students must complete FYS 101 during their first semester; transfer students entering with 24 or more transferable semester credits are exempt from this requirement and substitute 3 credits of general electives.

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§3.3 College Writing I and II

Requirement: 6 semester credits. The Core Writing sequence ensures that undergraduate students achieve advanced communicative clarity, research synthesis, and rhetorical proficiency.

- **ENGL 101 Academic Writing (3 credits):** Emphasizes critical reading, thesis-driven essay development, argumentative structure, textual analysis, and revision processes.
- **ENGL 102 Writing, Research, and Technology (3 credits):** Focuses on primary and secondary source research, information literacy, ethical citations (APA, MLA, Chicago), literature reviews, and multimodal argumentation. Prerequisite: ENGL 101 with a grade of C- or higher.
- Both courses must be taken for a letter grade and cannot be completed Pass/No Pass.

Contact: Department of English · Lovell Hall 300 · (555) 555-0158 · advising@university.alkimi.ai

§3.4 Quantitative Reasoning

Requirement: 3 semester credits. Students fulfill the Quantitative Reasoning requirement by demonstrating proficiency in mathematical modeling, computational logic, or statistical analysis. Approved courses include:

- MATH 105 Quantitative Reasoning for Everyday Life (3)
- MATH 110 Precalculus Functions and Models (4)
- MATH 140 Calculus I (4)
- STAT 205 Statistics for the Behavioral and Life Sciences (3)

Initial placement in Quantitative Reasoning courses is determined by high school mathematics performance and the Alkimi Math Placement Exam. Students planning majors in Business, Science, Engineering, or Nursing should select MATH 140 or STAT 205 as dictated by their specific degree roadmaps.

Contact: Department of Mathematics · Ashby Hall 100 · (555) 555-0158 · advising@university.alkimi.ai

§3.5 Natural Sciences with Laboratory

Requirement: 8 semester credits (two 4-credit laboratory science sequences). The Natural Sciences requirement equips students with foundational knowledge of the physical and biological universe through direct empirical observation and experimental inquiry. Students must complete two courses, each accompanied by a weekly three-hour laboratory:

- BIO 101 Introduction to Biology (4 credits, includes lab)
- CHEM 101 General Chemistry I (4 credits, includes lab)
- PHYS 111 College Physics I (4 credits, includes lab)
- PHYS 121 University Physics I: Mechanics (4 credits, includes lab)
- GEOL 101 Physical Geology and Earth Systems (4 credits, includes lab)

Science and health sciences majors fulfill this requirement organically within their lower-division major requirements (for instance, BIO 101 and CHEM 101 for Biology, Nursing, and Chemistry majors).

Contact: Meridian Science Center · Meridian Hall 150 · (555) 555-0158 · advising@university.alkimi.ai

§3.6 Social and Behavioral Sciences

Requirement: 6 semester credits (two 3-credit courses in distinct disciplines). Courses in the Social and Behavioral Sciences analyze human behavior, social institutions, cultural dynamics, and socioeconomic systems using quantitative and qualitative methodologies. Students select two courses from differing disciplines:

- ECON 201 Principles of Microeconomics (3 credits)
- ECON 202 Principles of Macroeconomics (3 credits)
- PSYC 101 Introductory Psychology (3 credits)
- SOC 101 Introduction to Sociology (3 credits)

- POSC 101 Introduction to American Government (3 credits)

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§3.7 Humanities and Cultural Inquiry

Requirement: 6 semester credits (two 3-credit courses). Humanities courses engage students with literary texts, philosophical dilemmas, historical developments, and linguistic structures across global civilizations. Students select two courses from distinct departmental offerings:

- HIST 204 American Labor History (3 credits)
- ENGL 210 American Literature (3 credits)
- ENGL 220 British Literature and the Empire (3 credits)
- PHIL 101 Introduction to Ethics and Moral Philosophy (3 credits)
- PHIL 205 Logic and Scientific Inquiry (3 credits)

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§3.8 The Arts and Creative Practice

Requirement: 3 semester credits. The Arts requirement fosters aesthetic appreciation, creative production, and cultural interpretation through visual, musical, or theatrical expression. Students select one 3-credit course from:

- ART 101 Global Art History: Ancient to Modern (3 credits)
- ART 110 Studio Drawing and Visual Composition (3 credits)
- MUS 110 Music Appreciation and Aural Culture (3 credits)
- THTR 105 Introduction to Acting and Dramatic Arts (3 credits)

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§3.9 Global Perspectives and World Cultures

Requirement: 3 semester credits. To prepare graduates for leadership in an interconnected international community, students must complete one course dedicated to non-Western cultures, transnational systems, or international relations:

- HIST 102 Western & World Civilizations II (3 credits)
- ANTH 105 Cultural Anthropology: People and Culture (3 credits)
- POSC 220 Comparative Politics in a Global Era (3 credits)
- GLBL 201 Globalization and Cultural Change (3 credits)

Approved semester-long international study abroad programs satisfying university criteria may also fulfill this requirement upon submission of a transcript to the Office of the Registrar.

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§3.10 Integrative Capstone

Requirement: 2 semester credits. The Alkimi Core culminates in CORE 400 Senior Interdisciplinary Capstone Seminar (2 credits), completed during the senior year (90 or more earned credits). CORE 400 brings together students from diverse disciplinary backgrounds to collaborate on multifaceted, real-world case studies addressing systemic challenges such as public health, ethical artificial intelligence, environmental sustainability, and economic inequality. Students demonstrate mastery of interdisciplinary synthesis, oral argumentation, and evidence-based collaboration.

Contact: Office of the Registrar · Alkimi One Stop, Harlan Hall 120 · (555) 555-0160 · registrar@university.alkimi.ai

§3.11 Advanced Placement (AP) Credit Equivalencies

Alkimi University awards undergraduate semester credit for qualifying scores achieved on College Board Advanced Placement (AP) examinations. Official score reports must be sent directly from the College Board to the Office of the Registrar. Credit awarded appears as transfer credit on the Alkimi transcript and does not affect the student's cumulative GPA.

AP Examination	Score	Alkimi Course Equivalent	Credits	Core / Major Applicability
AP Calculus AB	3	MATH 110	4 cr	Quantitative Reasoning Core
AP Calculus AB	4 or 5	MATH 140 Calculus I	4 cr	Quantitative Reasoning & Major req.
AP Calculus BC	3	MATH 140 Calculus I	4 cr	Quantitative Reasoning & Major req.
AP Calculus BC	4 or 5	MATH 140 & MATH 141	8 cr	Calculus I & II Major req.
AP Biology	4 or 5	BIO 101 Intro to Biology	4 cr	Natural Sciences Core with Lab
AP Chemistry	4 or 5	CHEM 101 General Chemistry I	4 cr	Natural Sciences Core with Lab
AP Computer Science A	4 or 5	CS 150 Intro to Python	4 cr	CS / Data Science Major req.
AP English Language & Comp	4 or 5	ENGL 101 Academic Writing	3 cr	Fulfills Core Writing I
AP English Literature & Comp	4 or 5	ENGL 102 Writing & Research	3 cr	Fulfills Core Writing II
AP Microeconomics	4 or 5	ECON 201 Microeconomics	3 cr	Social Sciences Core & Major req.
AP Macroeconomics	4 or 5	ECON 202 Macroeconomics	3 cr	Social Sciences Core & Major req.
AP Psychology	4 or 5	PSYC 101 Intro to Psychology	3 cr	Social Sciences Core & Major req.
AP United States History	4 or 5	HIST 101 Early US History	3 cr	Humanities Core & Major req.
AP Statistics	4 or 5	STAT 205 Statistics	3 cr	Quantitative Reasoning & Major req.

Students who receive AP credit for a course may not subsequently enroll in that course for credit at Alkimi University; doing so forfeits the AP examination credits.

Contact: Office of the Registrar · Alkimi One Stop, Harlan Hall 120 · (555) 555-0160 · registrar@university.alkimi.ai

§3.12 International Baccalaureate (IB) and College Transfer Credit

International Baccalaureate (IB) Policy: Alkimi University awards 6 to 8 semester credit hours for each Higher Level (HL) IB examination completed with a score of 5, 6, or 7. Standard Level (SL) examinations are not eligible for credit. Official IB diploma transcripts must be transmitted to the Office of the Registrar for formal evaluation.

College Transfer Credit Regulations:

- **Accreditation:** Courses must be completed at a college or university regionally accredited by an agency recognized by the Council for Higher Education Accreditation (CHEA).
- **Minimum Grade:** Coursework must be completed with a grade of “C” (2.000) or higher. Grades of “C-”, “D”, “P”, or “F” do not transfer.
- **Credit Ceilings:** A maximum of 64 semester credit hours may transfer from accredited two-year community colleges. A maximum total of 90 semester credit hours from all external institutions combined may apply toward the 120-credit degree.
- **GPA Calculation:** Transfer credits award earned hours only; transfer grades do not appear on the Alkimi transcript and do not calculate into the Alkimi cumulative GPA.
- **Timeline:** Transfer credit evaluations are posted in AlkimiHub within 10 business days of admission.

Contact: Office of Undergraduate Admissions · Founders Hall 110 · (555) 555-0142 · admissions@university.alkimi.ai

CHAPTER 4

College of Arts & Sciences Programs

§4.1 College Overview and Dean's Welcome

The College of Arts & Sciences constitutes the foundational academic core of Alkimi University, housing thirteen academic departments spanning the natural sciences, mathematics, humanities, and social sciences. Under the leadership of Dean Theodore Nakamura, the College fosters independent inquiry, empirical research, and humanistic dialogue across seven premier undergraduate majors featured in this catalog: History, Biology, Chemistry, Mathematics, English, Psychology, and Economics.

Contact: Office of the Dean, College of Arts & Sciences · Lovell Hall 200 · (555) 555-0135 · tnakamura@university.alkimi.ai

§4.2 Department of History: History (BA)

The Bachelor of Arts in History trains students to interpret primary historical artifacts, analyze social movements, formulate archival research arguments, and contextualize political and economic transformations across local and global societies.

Program Learning Outcomes:

1. Analyze primary and secondary historical evidence critically, evaluating authorial context, bias, and audience.
2. Formulate sophisticated, evidence-based historical arguments in written and oral modalities.
3. Trace the evolution of American, European, and transnational institutions, labor systems, and cultural ideologies over time.
4. Execute an original archival capstone project conforming to professional historical research methodologies.

Major Requirements (39 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
HIST 101	United States History to 1877	3 cr	None
HIST 102	Western and World Civilizations II	3 cr	None
HIST 201	Historical Methods and Historiography	3 cr	HIST 101 or 102; ENGL 102
HIST 204	American Labor History	3 cr	HIST 101 or sophomore standing
HIST 301	Colonial and Revolutionary America	3 cr	HIST 201
HIST 325	Modern European Imperialism & Decolonization	3 cr	HIST 201
HIST 490	Senior Seminar and Capstone in History	3 cr	HIST 201, senior standing
HIST Electives	Six 200/300/400-level History Electives	18 cr	Varies by course

Prerequisite Progression Chain: HIST 101/102 → HIST 201 → 300-level historical topical seminars → HIST 490 Senior Capstone.

Sample Four-Year Plan: History (BA) (120 Credits Total)

Semester 1	FYS 101 (3), ENGL 101 (3), HIST 101 (3), MATH 105 (3), Core Arts (3) = 15 cr	Semester 2	ENGL 102 (3), HIST 102 (3), Core Science w/Lab (4), Core Social Science (3), Elective (3) = 16 cr
Semester 3	HIST 201 (3), HIST 204 (3), Core Science w/Lab (4), Minor/Elective (3), Elective (3) = 16 cr	Semester 4	HIST 301 (3), HIST Elective (3), Core Humanities (3), Core Global Perspectives (3), Elective (3) = 15 cr
Semester 5	HIST 325 (3), HIST Elective (3), Upper-Division Elective (3), Minor Course (3), Elective (3) = 15 cr	Semester 6	HIST Upper-Division Elective (3), HIST Upper-Division Elective (3), Minor Course (3), Elective (3), Elective (3) = 15 cr
Semester 7	HIST Upper-Division Elective (3), Minor Course (3), Upper-Division Elective (3), Elective (3), Elective (3) = 15 cr	Semester 8	HIST 490 Capstone (3), CORE 400 Capstone (2), Minor Course (3), Upper-Division Elective (3), Elective (2) = 13 cr

Contact: Department of History · Lovell Hall 210 · (555) 555-0158 · ewhitaker@university.alkimi.ai

§4.3 Department of Biology: Biology (BS)

The Bachelor of Science in Biology provides rigorous cellular, organismal, evolutionary, and ecological preparation for students pursuing biomedical careers, graduate study, or ecological research.

Program Learning Outcomes:

1. Apply the scientific method to design controlled experiments, collect biological specimens, and statistically test hypotheses.
2. Explain fundamental cellular mechanisms, including DNA replication, gene expression, metabolism, and cellular signaling.
3. Synthesize evolutionary dynamics, ecological interactions, and population genetics across diverse biosphere taxa.
4. Demonstrate professional laboratory competencies, including sterile culture, microscopy, PCR amplification, and gel electrophoresis.

Major Requirements & Supporting Sciences (68 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
BIO 101	Introduction to Biology (with Lab)	4 cr	None
BIO 102	Organismal Biology & Diversity (with Lab)	4 cr	BIO 101
BIO 210	Genetics and Molecular Biology (with Lab)	4 cr	BIO 101, CHEM 101
BIO 220	Cell and Molecular Biology	3 cr	BIO 210, CHEM 102
BIO 350	Ecology and Evolutionary Dynamics	4 cr	BIO 102, BIO 210, STAT 205
BIO 490	Senior Biology Capstone & Research	3 cr	BIO 350, senior standing
BIO Electives	Four 300/400-level Advanced Biology Electives	14 cr	BIO 210
CHEM 101	General Chemistry I (with Lab)	4 cr	MATH 105 or placement

CHEM 102	General Chemistry II (with Lab)	4 cr	CHEM 101
CHEM 210	Organic Chemistry I (with Lab)	4 cr	CHEM 102
CHEM 211	Organic Chemistry II (with Lab)	4 cr	CHEM 210
MATH 140	Calculus I	4 cr	MATH 110 or placement
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
PHYS 111	College Physics I (with Lab)	4 cr	MATH 110
PHYS 112	College Physics II (with Lab)	4 cr	PHYS 111

Prerequisite Progression Chains:

- Biology: BIO 101 → BIO 102 → BIO 210 → BIO 220 / BIO 350 → BIO 490.
- Chemistry: CHEM 101 → CHEM 102 → CHEM 210 → CHEM 211.
- Physics: MATH 110 → PHYS 111 → PHYS 112.

Sample Four-Year Plan: Biology (BS) (120 Credits Total)

Semester 1	BIO 101 (4), CHEM 101 (4), MATH 140 (4), FYS 101 (3) = 15 cr	Semester 2	BIO 102 (4), CHEM 102 (4), ENGL 101 (3), STAT 205 (3) = 14 cr
Semester 3	BIO 210 (4), CHEM 210 (4), ENGL 102 (3), Core Social Science (3), Core Arts (3) = 17 cr	Semester 4	BIO 220 (3), CHEM 211 (4), Core Humanities (3), Core Global Perspectives (3), Elective (3) = 16 cr
Semester 5	BIO 350 (4), PHYS 111 (4), BIO Upper-Division Elective (3), Core Social Science (3) = 14 cr	Semester 6	BIO Upper-Division Elective (4), PHYS 112 (4), Core Humanities (3), Elective (3), Elective (2) = 16 cr
Semester 7	BIO Upper-Division Elective (4), BIO Upper-Division Elective (3), Upper-Division Elective (3), Elective (3), Elective (2) = 15 cr	Semester 8	BIO 490 Capstone (3), CORE 400 Capstone (2), Upper-Division Elective (3), Elective (3), Elective (2) = 13 cr

Contact: Department of Biology · Meridian Science Center 210 · (555) 555-0158 · mosei@university.alkimi.ai

§4.4 Department of Chemistry: Chemistry (BS)

The Bachelor of Science in Chemistry offers comprehensive theoretical instruction and intensive wet-bench training certified for careers in industrial chemical synthesis, environmental monitoring, biotechnology, and doctoral research.

Program Learning Outcomes:

1. Demonstrate foundational mastery of organic, inorganic, analytical, physical, and biochemical principles.
2. Operate advanced spectroscopic instrumentation including NMR, FTIR, GC-MS, and UV-Vis spectrophotometers.
3. Formulate predictive thermodynamic, quantum mechanical, and chemical kinetic models.
4. Execute chemical research adhering to rigorous laboratory safety, hazardous waste, and chemical hygiene standards.

Major Requirements & Supporting Sciences (66 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
CHEM 101	General Chemistry I (with Lab)	4 cr	MATH 105 or placement
CHEM 102	General Chemistry II (with Lab)	4 cr	CHEM 101
CHEM 210	Organic Chemistry I (with Lab)	4 cr	CHEM 102
CHEM 211	Organic Chemistry II (with Lab)	4 cr	CHEM 210
CHEM 320	Analytical Chemistry & Quantitative Analysis (with Lab)	4 cr	CHEM 102, STAT 205
CHEM 330	Physical Chemistry I: Thermodynamics & Kinetics	4 cr	CHEM 102, MATH 141, PHYS 121
CHEM 331	Physical Chemistry II: Quantum & Spectroscopy	4 cr	CHEM 330, MATH 240, PHYS 122
CHEM 410	Inorganic Chemistry	3 cr	CHEM 211, CHEM 330
CHEM 490	Senior Research Chemistry Capstone	3 cr	CHEM 331, senior standing
CHEM Electives	Two Upper-Division Chemistry Electives (e.g. Biochem)	6 cr	CHEM 211
MATH 140	Calculus I	4 cr	MATH 110 or placement
MATH 141	Calculus II	4 cr	MATH 140
MATH 240	Multivariable Calculus	4 cr	MATH 141
PHYS 121	University Physics I: Mechanics (with Lab)	4 cr	MATH 140
PHYS 122	University Physics II: Electricity & Magnetism (with Lab)	4 cr	PHYS 121, MATH 141

Prerequisite Progression Chain: CHEM 101 → CHEM 102 → CHEM 210 → CHEM 211 → CHEM 320 / CHEM 330 → CHEM 331 → CHEM 490.

Contact: Department of Chemistry · Meridian Science Center 320 · (555) 555-0158 · dkim@university.alkimi.ai

§4.5 Department of Mathematics: Mathematics (BS)

The Bachelor of Science in Mathematics develops abstract theoretical deduction, rigorous axiomatic proof construction, mathematical modeling, and computational algorithmic application.

Program Learning Outcomes:

1. Construct logically rigorous mathematical proofs utilizing direct, contradiction, contrapositive, and inductive techniques.
2. Solve complex continuous and discrete mathematical problems across linear algebra, calculus, and differential equations.
3. Analyze abstract algebraic structures (groups, rings, fields) and real topological spaces.
4. Implement numerical algorithms and computational simulations to model scientific phenomena.

Major Requirements & Supporting Disciplines (54 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
MATH 140	Calculus I	4 cr	MATH 110 or placement
MATH 141	Calculus II	4 cr	MATH 140

MATH 240	Multivariable Calculus	4 cr	MATH 141
MATH 250	Linear Algebra	3 cr	MATH 141
MATH 280	Discrete Mathematics	3 cr	MATH 140
MATH 301	Transition to Advanced Mathematics & Proofs	3 cr	MATH 141, MATH 250
MATH 340	Differential Equations	3 cr	MATH 240, MATH 250
MATH 410	Abstract Algebra I	3 cr	MATH 301
MATH 420	Real Analysis I	3 cr	MATH 240, MATH 301
MATH 490	Senior Mathematics Seminar	3 cr	MATH 410 or MATH 420
MATH Electives	Four 300/400-level Mathematics Electives	12 cr	MATH 301
CS 150	Introduction to Programming with Python	4 cr	None
STAT 310	Mathematical Statistics and Probability	3 cr	MATH 240, STAT 205

Prerequisite Progression Chains:

- Continuous Track: MATH 140 → MATH 141 → MATH 240 → MATH 340 → MATH 420.
- Abstract Track: MATH 141 + MATH 250 → MATH 301 → MATH 410.

Contact: Department of Mathematics · Ashby Hall 105 · (555) 555-0158 · asharma@university.alkimi.ai

§4.6 Department of English: English (BA)

The Bachelor of Arts in English cultivates close textual analysis, historical consciousness, critical theory, and advanced literary and creative composition.

Program Learning Outcomes:

1. Perform nuanced textual analyses of literature across diverse historical epochs, genres, and geographic traditions.
2. Apply major literary theories (psychoanalytic, postcolonial, feminist, ecocritical) to interpret cultural narratives.
3. Produce persuasive, sophisticated critical essays adhering to scholarly academic conventions.
4. Contextualize the reciprocal relationship between literary production and socioeconomic, racial, and gendered realities.

Major Requirements (39 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
ENGL 101	Academic Writing	3 cr	None
ENGL 102	Writing, Research, and Technology	3 cr	ENGL 101
ENGL 205	Introduction to Literary Analysis & Critical Theory	3 cr	ENGL 102
ENGL 210	American Literature	3 cr	ENGL 101 or 102
ENGL 220	British Literature and Culture	3 cr	ENGL 101 or 102
ENGL 301	Shakespeare: Texts, Contexts, and Performance	3 cr	ENGL 205

ENGL 490	Senior Seminar in Literary Research	3 cr	ENGL 301, senior standing
ENGL Electives	Six 300/400-level Literature / Writing Electives	18 cr	ENGL 205

Prerequisite Progression Chain: ENGL 102 → ENGL 205 → 300-level literary periods → ENGL 490 Senior Seminar.

Contact: Department of English · Lovell Hall 305 · (555) 555-0158 · lhaddad@university.alkimi.ai

§4.7 Department of Psychology: Psychology (BA)

The Bachelor of Arts in Psychology investigates mental processes, neurobiological mechanisms, behavioral cognition, developmental trajectories, and therapeutic modalities.

Program Learning Outcomes:

1. Differentiate major psychological theoretical paradigms (cognitive, behavioral, biological, psychodynamic).
2. Design, execute, and analyze empirical behavioral research utilizing APA statistical standards.
3. Evaluate socio-cultural and ethical influences on human cognition, emotion, and psychopathology.
4. Communicate psychological findings clearly in formal empirical research reports and public presentations.

Major Requirements (42 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
PSYC 101	Introductory Psychology	3 cr	None
PSYC 205	Research Methods in Behavioral Sciences (with Lab)	4 cr	PSYC 101, STAT 205
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
PSYC 220	Lifespan Developmental Psychology	3 cr	PSYC 101
PSYC 310	Cognitive Psychology and Neurocognition	3 cr	PSYC 205
PSYC 330	Social Psychology and Group Dynamics	3 cr	PSYC 101
PSYC 350	Abnormal Psychology and Clinical Disorders	3 cr	PSYC 101
PSYC 490	Senior Seminar in Psychological Science	3 cr	PSYC 205, senior standing
PSYC Electives	Five 200/300/400-level Psychology Electives (at least three at 300+)	15 cr	PSYC 101

Prerequisite Progression Chain: PSYC 101 + STAT 205 → PSYC 205 → 300-level psychology cores → PSYC 490.

Contact: Department of Psychology · Lovell Hall 150 · (555) 555-0158 · advising@university.alkimi.ai

§4.8 Department of Economics: Economics (BA)

The Bachelor of Arts in Economics equips students with empirical modeling, microeconomic price theory, macroeconomic forecasting, and econometrics to analyze global market structures and public policies.

Program Learning Outcomes:

1. Analyze market efficiency, consumer optimization, firm pricing strategies, and market failures using microeconomic theory.
2. Evaluate macroeconomic monetary and fiscal policy responses to inflation, unemployment, and business cycles.
3. Construct regression models to test economic hypotheses and assess causal relationships using empirical econometric tools.
4. Synthesize economic data to draft professional policy briefs and market analyses.

Major Requirements (40 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
ECON 201	Principles of Microeconomics	3 cr	None
ECON 202	Principles of Macroeconomics	3 cr	ECON 201
MATH 140	Calculus I	4 cr	MATH 110 or placement
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
ECON 301	Intermediate Microeconomic Theory	3 cr	ECON 201, MATH 140
ECON 302	Intermediate Macroeconomic Theory	3 cr	ECON 202, MATH 140
ECON 310	Econometrics and Data Analysis	3 cr	ECON 201, STAT 205
ECON 325	Money, Banking, and Financial Markets	3 cr	ECON 202
ECON 490	Senior Seminar in Economic Policy	3 cr	ECON 301, ECON 302, ECON 310
ECON Electives	Four 300/400-level Economics Electives	12 cr	ECON 201, 202

Prerequisite Progression Chain: ECON 201 + MATH 140 → ECON 301; ECON 202 + MATH 140 → ECON 302; STAT 205 → ECON 310 → ECON 490.

Contact: Department of Economics · Tidewell Hall 210 · (555) 555-0158 · cdonovan@university.alkimi.ai

CHAPTER 5

School of Business Programs

§5.1 School of Business Overview

The School of Business, located in Tidewell Hall under the leadership of Dean Aisha Rahman, educates principled leaders, entrepreneurs, and quantitative analysts prepared for the dynamic global economy. The School offers the Bachelor of Business Administration (BBA) alongside specialized Bachelor of Science degrees in Accounting, Finance, and Marketing.

Contact: Office of the Dean, School of Business · Tidewell Hall 100 · (555) 555-0135 · arahman@university.alkimi.ai

§5.2 Business Administration (BBA)

The Bachelor of Business Administration (BBA) delivers a comprehensive business foundation spanning accounting, corporate finance, organizational behavior, marketing strategy, operations, business law, and strategic management, coupled with a 15-credit specialized concentration.

Program Learning Outcomes:

1. Synthesize quantitative financial, accounting, and operational data to inform strategic executive decision-making.
2. Formulate ethical, market-tested marketing and management strategies responsive to evolving consumer preferences.
3. Assess legal, regulatory, and corporate governance obligations across domestic and international commerce.
4. Execute comprehensive business plans integrating cross-functional operations into a viable enterprise model.

Major Core and Supporting Requirements (45 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
ACCT 201	Financial Accounting	3 cr	MATH 105 or higher
ACCT 202	Managerial Accounting	3 cr	ACCT 201
ECON 201	Principles of Microeconomics	3 cr	None
ECON 202	Principles of Macroeconomics	3 cr	ECON 201
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
BUS 210	Legal Environment of Business & Corporate Ethics	3 cr	Sophomore standing
FIN 301	Principles of Corporate Finance	3 cr	ACCT 201, STAT 205
MGT 301	Principles of Management and Leadership	3 cr	Sophomore standing
MKT 301	Principles of Marketing Strategy	3 cr	ECON 201, sophomore standing
BUS 350	Business Information Systems and Analytics	3 cr	CS 150 or BUS 210
BUS 490	Strategic Management & Corporate Policy Capstone	3 cr	FIN 301, MGT 301, MKT 301, senior standing

Business Electives Four Breadth Business Electives 12 cr Varies by course

Required Concentration (15 Semester Credits): Students must select one 15-credit concentration:

- **Finance:** FIN 320 Investments, FIN 340 Financial Institutions, FIN 410 International Finance, FIN 450 Derivative Securities, plus one upper-division finance elective.
- **Marketing:** MKT 320 Consumer Behavior, MKT 350 Digital Marketing & Analytics, MKT 410 Marketing Research, MKT 460 Brand Strategy, plus one upper-division marketing elective.
- **Management:** MGT 320 Organizational Behavior, MGT 340 Human Resource Management, MGT 410 Operations Management, MGT 450 Negotiation & Conflict Management, plus one elective.
- **Accounting:** ACCT 310 Intermediate Accounting I, ACCT 311 Intermediate Accounting II, ACCT 330 Cost Accounting, ACCT 410 Auditing Principles, ACCT 420 Federal Taxation.

Total Major Credits: **60 semester credits.**

Sample Four-Year Plan: Business Administration (BBA) (120 Credits Total)

Semester 1	FYS 101 (3), ENGL 101 (3), MATH 140 or 105 (3–4), ECON 201 (3), Core Arts (3) = 15–16 cr	Semester 2	ENGL 102 (3), ECON 202 (3), STAT 205 (3), Core Science w/ Lab (4), Elective (3) = 16 cr
Semester 3	ACCT 201 (3), BUS 210 (3), Core Science w/Lab (4), Core Humanities (3), Elective (3) = 16 cr	Semester 4	ACCT 202 (3), MGT 301 (3), MKT 301 (3), Core Global Perspectives (3), Elective (3) = 15 cr
Semester 5	FIN 301 (3), BUS 350 (3), Concentration Course 1 (3), Core Humanities (3), Elective (3) = 15 cr	Semester 6	Concentration Course 2 (3), Concentration Course 3 (3), Business Elective (3), Upper-Division Elective (3), Elective (3) = 15 cr
Semester 7	Concentration Course 4 (3), Business Elective (3), Business Elective (3), Upper-Division Elective (3), Elective (3) = 15 cr	Semester 8	BUS 490 Capstone (3), Concentration Course 5 (3), CORE 400 Capstone (2), Business Elective (3), Elective (2) = 13 cr

Contact: School of Business Academic Advising · Tidewell Hall 115 · (555) 555-0158 · arahman@university.alkimi.ai

CHAPTER 6

School of Engineering & Computing Programs

§6.1 School of Engineering & Computing Overview

The School of Engineering & Computing, situated in the Rowan Engineering Center and Ashby Hall under Dean Jonas Whitfield, delivers ABET-aligned programs combining rigorous theoretical computer science and engineering principles with hands-on systems development.

Contact: Office of the Dean, School of Engineering & Computing · Rowan Engineering Center 100 · (555) 555-0135 · jwhitfield@university.alkimi.ai

§6.2 Computer Science (BS)

The Bachelor of Science in Computer Science prepares software engineers, systems architects, and computing researchers through a rigorous curriculum in algorithms, data structures, computer systems, software design, and artificial intelligence.

Program Learning Outcomes:

1. Design, implement, and analyze efficient algorithms and scalable software systems using modern paradigms (object-oriented, functional, concurrent).
2. Demonstrate deep understanding of computer systems architecture, operating systems kernel primitives, memory management, and network protocols.
3. Apply formal mathematical foundations—including discrete mathematics, automata theory, and complexity analysis—to computational problem solving.
4. Collaborate in multi-developer engineering teams utilizing Git version control, continuous integration, automated testing, and agile methodologies to construct a complex full-stack software capstone.

Major Requirements & Supporting Sciences (72 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
CS 150	Introduction to Programming with Python	4 cr	None
CS 151	Object-Oriented Programming & Data Structures	4 cr	CS 150 with C or higher
CS 220	Computer Architecture and Assembly Language	4 cr	CS 151
CS 250	Algorithms and Data Structures	4 cr	CS 151, MATH 280
CS 310	Software Engineering and Architecture	3 cr	CS 250
CS 330	Operating Systems and Systems Programming	4 cr	CS 220, CS 250
CS 350	Database Systems Design and SQL	3 cr	CS 250
CS 410	Theory of Computation and Automata	3 cr	CS 250, MATH 280
CS 490	Senior Software Design Project I	3 cr	CS 310, senior standing
CS 491	Senior Software Design Project II	3 cr	CS 490

CS Electives	Four 300/400-level CS Technical Electives (e.g. AI, Cyber)	12 cr	CS 250
MATH 140	Calculus I	4 cr	MATH 110 or placement
MATH 141	Calculus II	4 cr	MATH 140
MATH 250	Linear Algebra	3 cr	MATH 141
MATH 280	Discrete Mathematics	3 cr	MATH 140
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
PHYS 121	University Physics I: Mechanics (with Lab)	4 cr	MATH 140

Prerequisite Progression Chains:

- Programming/Software Core: CS 150 → CS 151 → CS 250 → CS 310 → CS 490 → CS 491.
- Systems Core: CS 151 → CS 220 → CS 330.
- Mathematical Core: MATH 140 → MATH 280 → CS 250 → CS 410.

Sample Four-Year Plan: Computer Science (BS) (120 Credits Total)

Semester 1	CS 150 (4), MATH 140 (4), ENGL 101 (3), FYS 101 (3) = 14 cr	Semester 2	CS 151 (4), MATH 141 (4), MATH 280 (3), ENGL 102 (3), Core Arts (3) = 17 cr
Semester 3	CS 220 (4), CS 250 (4), MATH 250 (3), PHYS 121 w/Lab (4) = 15 cr	Semester 4	CS 310 (3), CS 350 (3), STAT 205 (3), Core Humanities (3), Core Social Science (3) = 15 cr
Semester 5	CS 330 (4), CS Tech Elective 1 (3), Core Social Science (3), Core Global Perspectives (3), Elective (3) = 16 cr	Semester 6	CS 410 (3), CS Tech Elective 2 (3), Core Science (4), Core Humanities (3), Elective (3) = 16 cr
Semester 7	CS 490 Senior Capstone I (3), CS Tech Elective 3 (3), Upper-Division Elective (3), Elective (3), Elective (2) = 14 cr	Semester 8	CS 491 Senior Capstone II (3), CS Tech Elective 4 (3), CORE 400 Capstone (2), Upper-Division Elective (3), Elective (2) = 13 cr

Contact: Department of Computer Science · Ashby Hall 200 · (555) 555-0158 · trivera@university.alkimi.ai

§6.3 Data Science (BS)

The Bachelor of Science in Data Science merges computer science, predictive statistics, mathematical modeling, and machine learning to analyze massive structured and unstructured datasets.

Program Learning Outcomes:

1. Execute data pipelines spanning data acquisition, cleaning, relational databases, distributed systems, and visualization.
2. Develop predictive models using supervised, unsupervised, and deep machine learning algorithms in Python and R.
3. Apply high-dimensional linear algebra and multivariate probability to evaluate algorithmic risk and bias.
4. Interpret complex predictive analytics to formulate evidence-based decisions for technical and non-technical stakeholders.

Major Requirements & Supporting Disciplines (69 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
CS 150	Introduction to Programming with Python	4 cr	None
CS 151	Object-Oriented Programming & Data Structures	4 cr	CS 150
CS 250	Algorithms and Data Structures	4 cr	CS 151, MATH 280
CS 350	Database Systems Design and SQL	3 cr	CS 250
DATA 201	Introduction to Data Science & Analytics	3 cr	CS 150, STAT 205
DATA 301	Data Mining and Predictive Modeling	3 cr	DATA 201, MATH 250
DATA 350	Big Data Infrastructure & Distributed Computing	3 cr	CS 250, CS 350
DATA 401	Machine Learning and Neural Networks	4 cr	DATA 301, MATH 240
DATA 490	Senior Data Science Capstone Project	3 cr	DATA 401, senior standing
DATA Electives	Three Advanced Data Science Electives	9 cr	DATA 301
MATH 140	Calculus I	4 cr	MATH 110 or placement
MATH 141	Calculus II	4 cr	MATH 140
MATH 240	Multivariable Calculus	4 cr	MATH 141
MATH 250	Linear Algebra	3 cr	MATH 141
MATH 280	Discrete Mathematics	3 cr	MATH 140
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
STAT 310	Mathematical Statistics and Probability	3 cr	MATH 240, STAT 205

Prerequisite Progression Chain: CS 150 + STAT 205 → DATA 201 → DATA 301 → DATA 401 → DATA 490.

Contact: Data Science Program Office · Ashby Hall 215 · (555) 555-0158 · trivera@university.alkimi.ai

CHAPTER 7

School of Nursing & Health Sciences Programs

§7.1 School of Nursing & Health Sciences Overview

The School of Nursing & Health Sciences, based in the state-of-the-art Calder Health Sciences Building under Dean Grace Adeyemi, prepares compassionate, clinically skilled, and evidence-based registered nurses. The Calder Building houses high-fidelity clinical simulation laboratories, a mock emergency pavilion, pediatric suites, and standardized patient examination clinics.

Contact: Office of the Dean, School of Nursing & Health Sciences · Calder Building 200 · (555) 555-0135 · gadeyemi@university.alkimi.ai

§7.2 Nursing (BSN) Curriculum and Degree Requirements

The Bachelor of Science in Nursing (BSN) is a pre-licensure four-year degree program fully accredited by the Commission on Collegiate Nursing Education (CCNE). Graduates are eligible to sit for the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Program Learning Outcomes:

1. Deliver patient-centered, culturally competent, and developmentally sensitive nursing care across diverse clinical populations.
2. Integrate clinical pathophysiology, pharmacological mechanisms, and health assessment to formulate clinical nursing interventions.
3. Apply evidence-based practice and quantitative clinical research to enhance healthcare safety and therapeutic patient outcomes.
4. Demonstrate professional communication, clinical leadership, ethical nursing integrity, and interprofessional healthcare collaboration.

Required Nursing Curriculum and Prerequisites (76 Semester Credits):

Course Code	Course Title	Credits	Prerequisites
BIO 201	Human Anatomy and Physiology I (with Lab)	4 cr	BIO 101, CHEM 101
BIO 202	Human Anatomy and Physiology II (with Lab)	4 cr	BIO 201
BIO 230	Microbiology for Health Sciences (with Lab)	4 cr	BIO 101, CHEM 101
CHEM 101	General Chemistry I (with Lab)	4 cr	MATH 105 or placement
STAT 205	Statistics for Behavioral & Life Sciences	3 cr	MATH 105
PSYC 220	Lifespan Developmental Psychology	3 cr	PSYC 101
NUTR 205	Clinical Nutrition and Diet Therapy	3 cr	BIO 201, CHEM 101
NURS 210	Foundations of Professional Nursing Practice	4 cr	Admitted to BSN; BIO 201, BIO 202
NURS 220	Pathophysiology	3 cr	BIO 201, BIO 202, CHEM 101 (min C+)

NURS 230	Health Assessment & Clinical Physical Examination	4 cr	Concurrent w/ NURS 210, 220
NURS 310	Pharmacology for Clinical Nursing Practice	3 cr	NURS 220
NURS 320	Adult Health Nursing I: Acute Care (with Clinical)	6 cr	NURS 210, 220, 230; NURS 310
NURS 330	Adult Health Nursing II: Complex Care (with Clinical)	6 cr	NURS 320
NURS 340	Mental and Behavioral Health Nursing (with Clinical)	4 cr	NURS 320
NURS 350	Nursing Care of Childbearing Families (with Clinical)	4 cr	NURS 320
NURS 410	Nursing Care of Children & Adolescents (with Clinical)	4 cr	NURS 330, NURS 350
NURS 420	Community, Population, and Public Health Nursing	4 cr	NURS 330, NURS 340
NURS 430	Nursing Research, Inquiry, and Evidence-Based Practice	3 cr	STAT 205, NURS 320
NURS 440	Nursing Leadership, Healthcare Policy, and Management	3 cr	Senior standing, NURS 330
NURS 490	Clinical Preceptorship & Senior Transition Capstone	5 cr	Final semester; all NURS 300/400

Sample Four-Year Plan: Nursing (BSN) (120 Credits Total)

Semester 1	BIO 101 (4), CHEM 101 (4), ENGL 101 (3), FYS 101 (3) = 14 cr	Semester 2	BIO 201 (4), STAT 205 (3), PSYC 101 (3), ENGL 102 (3), Core Arts (3) = 16 cr
Semester 3	BIO 202 (4), BIO 230 (4), PSYC 220 (3), NUTR 205 (3), Core Humanities (3) = 17 cr	Semester 4	NURS 210 (4), NURS 220 (3), NURS 230 (4), Core Humanities (3) = 14 cr
Semester 5	NURS 310 (3), NURS 320 (6), Core Global Perspectives (3), Elective (3) = 15 cr	Semester 6	NURS 330 (6), NURS 340 (4), NURS 350 (4) = 14 cr
Semester 7	NURS 410 (4), NURS 420 (4), NURS 430 (3), Upper-Division Elective (3) = 14 cr	Semester 8	NURS 440 (3), NURS 490 Capstone (5), CORE 400 Capstone (2), Elective (3), Elective (3) = 16 cr

Contact: School of Nursing & Health Sciences · Calder Building 210 · (555) 555-0158 · jprice@university.alkimi.ai

§7.3 Nursing Progression and Minimum Grade Policies

Because nursing directly affects patient health and life safety, the School of Nursing & Health Sciences enforces rigorous academic progression policies:

1. **Minimum Grade Benchmark in Nursing Courses:** A minimum grade of “C+” (77.0% or 2.300 quality points) is required in every course carrying the NURS prefix, as well as in all foundational science prerequisites: BIO 201, BIO 202, BIO 230, and CHEM 101. A grade of “C” (73.0–76.9%) or

lower in any NURS or science prerequisite course is considered an academic failure for progression purposes.

2. **Clinical Course Dual-Component Requirement:** Every clinical nursing course consists of a didactic lecture component and a clinical practicum / simulation component. To pass a clinical course, the student must achieve:
 - A minimum didactic score of 77.0% (C+) on course examinations and assignments.
 - A grade of “Satisfactory” (Pass) in the clinical practicum based on direct preceptor evaluation.
 - If a student achieves 77% in lecture but fails the clinical practicum, or passes clinicals but achieves below 77% in lecture, the student receives a grade of “C-” or lower for the entire course and must repeat both components.
3. **Course Repeat Restriction and Program Dismissal:** A student who earns below a “C+” in any single NURS course may repeat that course once, subject to clinical placement availability. A student who earns below a “C+” in two NURS courses—whether the same course repeated twice or two distinct NURS courses—is permanently and automatically dismissed from the Bachelor of Science in Nursing program.
4. **Cumulative GPA Threshold:** Students in the BSN program must maintain a cumulative GPA of at least 2.750. If a nursing student’s cumulative GPA drops below 2.750, they are placed on Nursing Clinical Probation for one semester. Failure to restore the cumulative GPA to 2.750 after one semester results in administrative withdrawal from the nursing major.

Contact: School of Nursing Academic Standing Committee · Calder Building 215 · (555) 555-0158 · gadeyemi@university.alkimi.ai

§7.4 Clinical Compliance and Health Requirements

Prior to stepping onto clinical hospital floors or participating in healthcare partner rotations, all sophomore nursing students must achieve 100% compliance with institutional health and security mandates. All documentation must be submitted via the AlkimiHub Clinical Portal no later than **August 1** for Fall clinicals or **December 15** for Spring clinicals.

Mandatory Compliance Requirements:

1. **Criminal Background Check:** Annual comprehensive state and federal criminal history check, including FBI fingerprinting and sex-offender registry verification.
2. **10-Panel Drug Screen:** Verified negative 10-panel urine drug screen completed through the university-approved laboratory within 30 days prior to the start of clinical coursework. Diluted, adulterated, or positive drug screens trigger immediate administrative review and possible clinical disqualification.
3. **CPR / Basic Life Support Certification:** Current certification in Basic Life Support (BLS) for Healthcare Providers from the American Heart Association (AHA). Certifications from other organizations are not accepted.
4. **Immunizations and Quantitative Blood Titers:**
 - **MMR (Measles, Mumps, Rubella):** Documentation of 2 doses or positive quantitative blood titers showing immunity.
 - **Varicella (Chickenpox):** Documentation of 2 doses or positive quantitative IgG blood titer.
 - **Hepatitis B:** Documentation of the complete 3-dose vaccine series followed by a positive quantitative Hepatitis B Surface Antibody (anti-HBs) titer.
 - **Tdap:** Tetanus, Diphtheria, Pertussis booster administered within the past 10 years.
 - **Tuberculosis (TB):** Initial two-step Mantoux tuberculin skin test (TST) or QuantiFERON-TB Gold blood test, followed by annual screening.
 - **Influenza:** Annual influenza vaccine administered by October 15 each academic year.

5. **HIPAA and Bloodborne Pathogens Certification:** Annual completion of university modules on healthcare data privacy and bloodborne pathogen protection.

A student who fails to submit all compliance materials by the published deadline will be dropped from their clinical courses and will forfeit their clinical cohort placement.

Contact: Clinical Compliance Coordinator · Calder Health Sciences Building 110 · (555) 555-0158 · jprice@university.alkimi.ai

§7.5 Direct-Admit Pathway vs. Internal Transfer Admission

Prospective nursing students enter the BSN through two distinct admission routes:

Direct-Admit Pathway (First-Year Applicants): High school seniors apply directly to the Bachelor of Science in Nursing program during the undergraduate admissions cycle.

- Criteria include strong academic performance in high school biology and chemistry and competitive unweighted GPA (typically 3.70 or higher).
- Direct-admit students secure guaranteed placement in the sophomore clinical cohort, provided they maintain a cumulative GPA of at least 2.750, complete all freshman science prerequisites (BIO 101, CHEM 101, BIO 201) with a grade of C+ (77%) or higher on the first attempt, and satisfy all clinical compliance requirements by August 1.

Internal Transfer / Change-of-Major Pathway: Current Alkimi University undergraduate students enrolled in other majors (such as Biology, Psychology, or Exploratory Studies) who wish to transition into the BSN program may apply through competitive internal transfer.

- **Eligibility:** Internal applicants must have completed at least 28 semester credit hours at Alkimi University with a minimum cumulative GPA of 3.200.
- **Prerequisites:** Applicants must have completed BIO 101, CHEM 101, and BIO 201 with a grade of “B” (3.000) or higher.
- **Deadline:** Internal transfer applications are due to the School of Nursing no later than **March 1** for entry into the following Fall clinical cohort.
- **Selection:** Internal transfer admission is highly competitive and offered strictly on a space-available basis after direct-admit cohort confirmations are finalized. Meeting minimum criteria does not guarantee admission.

Contact: School of Nursing Admissions Committee · Calder Building 210 · (555) 555-0158 · admissions@university.alkimi.ai

CHAPTER 8

Undergraduate Minors

§8.1 Minors Policy and General Rules

Undergraduate minors at Alkimi University provide students an opportunity to pursue a secondary academic interest, complement their primary major, or develop marketable interdisciplinary competencies.

- Minors consist of 18 to 24 semester credit hours.
- At least 9 credit hours must be completed at the 300-level or above.
- A minimum cumulative GPA of 2.000 is required across all minor coursework.
- A maximum of 6 credits may overlap between the student's primary major requirements and an academic minor.
- Minors are declared via the AlkimiHub student portal and must be approved by the offering department.

Contact: Academic Advising Center · Lovell Hall 101 · (555) 555-0158 · advising@university.alkimi.ai

§8.2 History Minor

The History Minor requires **18 semester credit hours**:

1. HIST 101 United States History to 1877 (3 credits) or HIST 102 Western & World Civilizations II (3 credits)
2. HIST 201 Historical Methods and Historiography (3 credits)
3. HIST 204 American Labor History (3 credits)
4. Three upper-division (300- or 400-level) History electives (9 credits)

Contact: Department of History · Lovell Hall 210 · (555) 555-0158 · ewhitaker@university.alkimi.ai

§8.3 Biology Minor

The Biology Minor requires **20 semester credit hours**:

1. BIO 101 Introduction to Biology (with Lab) (4 credits)
2. BIO 102 Organismal Biology & Diversity (with Lab) (4 credits)
3. BIO 210 Genetics and Molecular Biology (with Lab) (4 credits)
4. Two upper-division (300- or 400-level) Biology courses (8 credits)

Contact: Department of Biology · Meridian Science Center 210 · (555) 555-0158 · mosei@university.alkimi.ai

§8.4 Chemistry Minor

The Chemistry Minor requires **20 semester credit hours**:

1. CHEM 101 General Chemistry I (with Lab) (4 credits)
2. CHEM 102 General Chemistry II (with Lab) (4 credits)
3. CHEM 210 Organic Chemistry I (with Lab) (4 credits)
4. CHEM 211 Organic Chemistry II (with Lab) (4 credits)
5. One upper-division Chemistry elective (CHEM 320, 330, or 410) (4 credits)

Contact: Department of Chemistry · Meridian Science Center 320 · (555) 555-0158 · dkim@university.alkimi.ai

§8.5 Mathematics Minor

The Mathematics Minor requires **18 semester credit hours**:

1. MATH 140 Calculus I (4 credits)
2. MATH 141 Calculus II (4 credits)
3. MATH 250 Linear Algebra (3 credits)
4. MATH 280 Discrete Mathematics (3 credits)
5. One 300- or 400-level Mathematics elective (MATH 301, 340, 410, or 420) (4 credits)

Contact: Department of Mathematics · Ashby Hall 105 · (555) 555-0158 · asharma@university.alkimi.ai

§8.6 Computer Science Minor

The Computer Science Minor requires **20 semester credit hours**:

1. CS 150 Introduction to Programming with Python (4 credits)
2. CS 151 Object-Oriented Programming & Data Structures (4 credits)
3. CS 250 Algorithms and Data Structures (4 credits)
4. Two upper-division Computer Science electives (CS 310, 330, 350, or 410) (8 credits)

Contact: Department of Computer Science · Ashby Hall 200 · (555) 555-0158 · trivera@university.alkimi.ai

§8.7 Economics Minor

The Economics Minor requires **18 semester credit hours**:

1. ECON 201 Principles of Microeconomics (3 credits)
2. ECON 202 Principles of Macroeconomics (3 credits)
3. ECON 301 Intermediate Microeconomic Theory (3 credits) or ECON 302 Intermediate Macroeconomic Theory (3 credits)
4. Three additional 200-, 300-, or 400-level Economics electives (at least two at 300+) (9 credits)

Contact: Department of Economics · Tidewell Hall 210 · (555) 555-0158 · cdonovan@university.alkimi.ai

§8.8 English Minor

The English Minor requires **18 semester credit hours**:

1. ENGL 102 Writing, Research, and Technology (3 credits)
2. ENGL 205 Introduction to Literary Analysis (3 credits)
3. ENGL 210 American Literature (3 credits) or ENGL 220 British Literature (3 credits)
4. Three upper-division (300- or 400-level) English literature electives (9 credits)

Contact: Department of English · Lovell Hall 305 · (555) 555-0158 · lhaddad@university.alkimi.ai

§8.9 Psychology Minor

The Psychology Minor requires **18 semester credit hours**:

1. PSYC 101 Introductory Psychology (3 credits)
2. PSYC 205 Research Methods in Behavioral Sciences (4 credits) or STAT 205 Statistics (3 credits)
3. Four additional Psychology electives, including at least three at the 300-level or above (11–12 credits)

Contact: Department of Psychology · Lovell Hall 150 · (555) 555-0158 · advising@university.alkimi.ai

CHAPTER 9

Course Descriptions

§9.1 Explanation of Course Codes and Formats

Courses are numbered according to academic level:

- **100–199:** Introductory, lower-division courses primarily for first-year students.
- **200–299:** Intermediate, lower-division courses suitable for sophomores and above.
- **300–399:** Advanced, upper-division courses requiring prior foundational preparation.
- **400–499:** Advanced capstone, senior research, and specialized seminars.

Every course listing includes the course code, title, semester credit hours in parentheses, a descriptive summary, prerequisites or corequisites, and terms typically offered. The eight Alkimi demo courses are highlighted and match institutional canon definitions exactly.

§9.2 Biology (BIO)

BIO 101 Introduction to Biology (4) Cells, genetics, evolution, and ecology, with a weekly three-hour laboratory. *Prerequisites:* None. High school biology and chemistry recommended. *Terms Offered:* Fall, Spring.

BIO 102 Organismal Biology & Diversity (4) Comparative morphology, physiology, and evolutionary adaptations of plants, animals, fungi, and protists, with weekly laboratory dissection and field observations. *Prerequisites:* BIO 101 with a grade of C- or higher. *Terms Offered:* Spring.

BIO 201 Human Anatomy and Physiology I (4) Gross and microscopic structural organization and physiology of the human body, covering integumentary, skeletal, muscular, and nervous systems, with anatomical dissection laboratory. *Prerequisites:* BIO 101 and CHEM 101 with C- or higher (C+ for BSN majors). *Terms Offered:* Fall.

BIO 202 Human Anatomy and Physiology II (4) Continuation of BIO 201, covering endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems, with physiological measurement laboratory. *Prerequisites:* BIO 201 with C- or higher (C+ for BSN majors). *Terms Offered:* Spring.

BIO 210 Genetics and Molecular Biology (4) Principles of Mendelian inheritance, chromosome structure, DNA replication, transcriptional regulation, recombinant DNA technology, and genomics, with molecular laboratory. *Prerequisites:* BIO 101 and CHEM 101 with C- or higher. *Terms Offered:* Fall, Spring.

BIO 220 Cell and Molecular Biology (3) Biochemical mechanisms of cell structure, intracellular trafficking, signal transduction pathways, cell division cycle, and programmed cell death. *Prerequisites:* BIO 210 and CHEM 102. *Terms Offered:* Spring.

BIO 230 Microbiology for Health Sciences (4) Biology of bacteria, viruses, fungi, and pathogenic parasites, host-microbe interactions, antimicrobial therapeutics, and epidemiology, with culture and staining laboratory. *Prerequisites:* BIO 101 and CHEM 101 with C- or higher (C+ for BSN majors). *Terms Offered:* Fall, Spring.

BIO 350 Ecology and Evolutionary Dynamics (4) Organismal interactions with abiotic and biotic environments, population demographics, community assembly, nutrient cycling, and macroevolutionary speciation, with ecological field lab. *Prerequisites:* BIO 102, BIO 210, and STAT 205. *Terms Offered:* Fall.

BIO 410 Molecular Immunology (3) Cellular components of innate and adaptive immunity, antibody structure, MHC presentation, T-cell activation, immune tolerance, autoimmune diseases, and vaccine development. *Prerequisites:* BIO 210 and BIO 220. *Terms Offered:* Spring.

BIO 490 Senior Biology Capstone & Research (3) Independent experimental or literature research executed under faculty mentorship, culminating in a thesis and formal symposium presentation. *Prerequisites:* BIO 350, senior standing, and departmental permission. *Terms Offered:* Fall, Spring.

§9.3 Chemistry (CHEM)

CHEM 101 General Chemistry I (4) Atomic structure, bonding, stoichiometry, gases, thermochemistry, and solutions. *Prerequisites:* MATH 105 or placement into MATH 140. Includes weekly laboratory. *Terms Offered:* Fall, Spring.

CHEM 102 General Chemistry II (4) Chemical equilibrium, acid-base systems, thermodynamics, kinetics, electrochemistry, and nuclear chemistry, with quantitative laboratory. *Prerequisites:* CHEM 101 with a grade of C- or higher. *Terms Offered:* Spring.

CHEM 210 Organic Chemistry I (4) Structure, stereochemistry, reaction mechanisms, and synthetic pathways of alkanes, alkenes, alkynes, alkyl halides, and alcohols, with synthetic purification laboratory. *Prerequisites:* CHEM 102 with a grade of C- or higher. *Terms Offered:* Fall.

CHEM 211 Organic Chemistry II (4) Aromatic compounds, aldehydes, ketones, carboxylic acids, amine derivatives, spectroscopy (NMR, IR, MS), and bio-organic molecules, with instrumental laboratory. *Prerequisites:* CHEM 210 with a grade of C- or higher. *Terms Offered:* Spring.

CHEM 320 Analytical Chemistry & Quantitative Analysis (4) Gravimetric, volumetric, and instrumental methods of chemical analysis, statistical data treatment, chromatography, and spectroscopy, with quantitative analytical laboratory. *Prerequisites:* CHEM 102 and STAT 205. *Terms Offered:* Fall.

CHEM 330 Physical Chemistry I: Thermodynamics & Kinetics (4) Laws of thermodynamics, phase equilibria, chemical potential, reaction dynamics, and transport phenomena applied to chemical systems. *Prerequisites:* CHEM 102, MATH 141, and PHYS 121. *Terms Offered:* Fall.

CHEM 331 Physical Chemistry II: Quantum & Spectroscopy (4) Postulates of quantum mechanics, atomic orbitals, molecular orbital theory, rotational, vibrational, and electronic spectroscopy. *Prerequisites:* CHEM 330, MATH 240, and PHYS 122. *Terms Offered:* Spring.

CHEM 410 Inorganic Chemistry (3) Coordination chemistry, crystal field theory, organometallic reaction mechanisms, bioinorganic systems, and solid-state materials. *Prerequisites:* CHEM 211 and CHEM 330. *Terms Offered:* Spring.

CHEM 490 Senior Research Chemistry Capstone (3) Original laboratory chemical synthesis or physical characterization project culminating in a written senior monograph and departmental defense. *Prerequisites:* CHEM 331, senior standing. *Terms Offered:* Fall, Spring.

§9.4 Computer Science (CS)

CS 150 Introduction to Programming with Python (4) Problem solving, data types, control flow, functions, and testing in Python. *Prerequisites:* None. Includes weekly two-hour hands-on programming laboratory. *Terms Offered:* Fall, Spring.

CS 151 Object-Oriented Programming & Data Structures (4) Object-oriented principles (encapsulation, inheritance, polymorphism), abstract data types, linked lists, stacks, queues, binary trees, recursion, and algorithm efficiency in Java or C++. *Prerequisites:* CS 150 with a grade of C or higher. Includes laboratory. *Terms Offered:* Fall, Spring.

CS 220 Computer Architecture and Assembly Language (4) Machine representation of data, instruction set architectures (RISC-V/x86), processor datapath and control, memory hierarchies, caching, and assembly programming. *Prerequisites:* CS 151. *Terms Offered:* Fall.

CS 250 Algorithms and Data Structures (4) Advanced algorithm design and asymptotic analysis (O , Ω , Θ), balanced search trees, heaps, hash tables, graph algorithms (BFS, DFS, Dijkstra, Prim), divide-and-conquer, and dynamic programming. *Prerequisites:* CS 151 and MATH 280 with grades of C or higher. *Terms Offered:* Fall, Spring.

CS 310 Software Engineering and Architecture (3) Software development lifecycles, requirements engineering, architectural design patterns, unit testing, continuous integration, code reviews, and collaborative team engineering. *Prerequisites:* CS 250. *Terms Offered:* Spring.

CS 330 Operating Systems and Systems Programming (4) Process management, multi-threading, concurrency and synchronization, CPU scheduling, virtual memory management, file systems, device drivers, and POSIX shell programming. *Prerequisites:* CS 220 and CS 250. Includes laboratory. *Terms Offered:* Fall.

CS 350 Database Systems Design and SQL (3) Relational data modeling, relational algebra, SQL querying, schema normalization (1NF through BCNF), indexing, transaction processing, ACID properties, and NoSQL databases. *Prerequisites:* CS 250. *Terms Offered:* Spring.

CS 410 Theory of Computation and Automata (3) Regular expressions, finite state automata, context-free grammars, pushdown automata, Turing machines, decidability, halting problem, and NP-completeness. *Prerequisites:* CS 250 and MATH 280. *Terms Offered:* Fall.

CS 450 Artificial Intelligence and Autonomous Agents (3) Heuristic search algorithms, adversarial game playing, probabilistic reasoning, reinforcement learning, natural language processing, and ethical implications of autonomous systems. *Prerequisites:* CS 250 and MATH 250. *Terms Offered:* Spring.

CS 490 Senior Software Design Project I (3) First semester of comprehensive capstone design. Student teams define requirements, design software architecture, evaluate feasibility, and develop prototype specifications. *Prerequisites:* CS 310, CS 350, and senior standing. *Terms Offered:* Fall.

CS 491 Senior Software Design Project II (3) Completion, rigorous testing, deployment, and public exhibition of full-stack capstone software project defined in CS 490. *Prerequisites:* CS 490 with a grade of C or higher. *Terms Offered:* Spring.

§9.5 Data Science (DATA)

DATA 201 Introduction to Data Science & Analytics (3) Exploratory data analysis, data wrangling with pandas/R, data visualization, web scraping, and foundational predictive modeling applied to real-world domain problems. *Prerequisites:* CS 150 and STAT 205. *Terms Offered:* Fall, Spring.

DATA 301 Data Mining and Predictive Modeling (3) Supervised learning models, classification and regression trees, random forests, support vector machines, clustering algorithms, and model validation techniques. *Prerequisites:* DATA 201 and MATH 250. *Terms Offered:* Fall.

DATA 350 Big Data Infrastructure & Distributed Computing (3) Distributed storage, map-reduce paradigms, Apache Spark, stream processing, cloud data warehouses, and scalable pipeline architectures for massive datasets. *Prerequisites:* CS 250 and CS 350. *Terms Offered:* Spring.

DATA 401 Machine Learning and Neural Networks (4) Deep learning architectures, backpropagation algorithms, convolutional neural networks, recurrent neural networks, transformers, and regularization in PyTorch. *Prerequisites:* DATA 301 and MATH 240. Includes laboratory. *Terms Offered:* Fall.

DATA 490 Senior Data Science Capstone Project (3) Comprehensive team project solving an authentic enterprise or scientific predictive modeling problem, concluding with a production pipeline and public presentation. *Prerequisites:* DATA 401 and senior standing. *Terms Offered:* Spring.

§9.6 Economics (ECON)

ECON 201 Principles of Microeconomics (3) Supply and demand, consumer and firm behavior, market structures, and public policy. *Prerequisites:* None. *Terms Offered:* Fall, Spring.

ECON 202 Principles of Macroeconomics (3) National income accounting, inflation, unemployment, fiscal and monetary policies, banking systems, long-run economic growth, and international exchange rates. *Prerequisites:* ECON 201. *Terms Offered:* Fall, Spring.

ECON 301 Intermediate Microeconomic Theory (3) Mathematical analysis of consumer choice, utility maximization, production functions, cost minimization, perfect competition, monopoly, oligopoly, and game theory. *Prerequisites:* ECON 201 and MATH 140. *Terms Offered:* Fall.

ECON 302 Intermediate Macroeconomic Theory (3) Formal models of economic growth (Solow model), aggregate demand and supply (IS-LM, AD-AS), monetary transmission, inflationary expectations, and macroeconomic stabilization. *Prerequisites:* ECON 202 and MATH 140. *Terms Offered:* Spring.

ECON 310 Econometrics and Data Analysis (3) Linear regression modeling, ordinary least squares (OLS) estimation, hypothesis testing, heteroskedasticity, autocorrelation, instrumental variables, and panel data using Stata/R. *Prerequisites:* ECON 201 and STAT 205. *Terms Offered:* Fall.

ECON 325 Money, Banking, and Financial Markets (3) Structure and functions of financial intermediaries, central banking operations, interest rate determination, monetary policy implementation, and financial crises. *Prerequisites:* ECON 202. *Terms Offered:* Spring.

ECON 490 Senior Seminar in Economic Policy (3) Independent capstone research analyzing pressing microeconomic or macroeconomic policy issues, culminating in an empirical senior thesis and defense. *Prerequisites:* ECON 301, ECON 302, ECON 310, and senior standing. *Terms Offered:* Spring.

§9.7 English (ENGL)

ENGL 101 Academic Writing (3) Critical reading, thesis-driven argumentative essay composition, analytical rhetoric, textual evidence integration, and iterative peer review. *Prerequisites:* None. *Terms Offered:* Fall, Spring.

ENGL 102 Writing, Research, and Technology (3) Scholarly research methodologies, digital information literacy, primary and secondary source evaluation, multimodal argumentation, and professional bibliographic documentation. *Prerequisites:* ENGL 101 with a grade of C- or higher. *Terms Offered:* Fall, Spring.

ENGL 205 Introduction to Literary Analysis & Critical Theory (3) Close reading strategies, poetics, narrative forms, and foundational critical theory frameworks (Marxist, feminist, structuralist, post-colonial) applied to literature. *Prerequisites:* ENGL 102. *Terms Offered:* Fall, Spring.

ENGL 210 American Literature (3) American fiction, poetry, and essays from the early republic to the present. *Prerequisites:* ENGL 101 or ENGL 102. *Terms Offered:* Fall, Spring.

ENGL 220 British Literature and Culture (3) Chronological survey of British literary traditions from the Medieval and Renaissance eras through Romanticism, Victorian industrialism, and 20th-century post-imperial modernism. *Prerequisites:* ENGL 101 or ENGL 102. *Terms Offered:* Fall, Spring.

ENGL 301 Shakespeare: Texts, Contexts, and Performance (3) Critical study of Shakespeare's comedies, histories, and tragedies, examining Early Modern performance contexts, textual variants, and contemporary cinematic adaptations. *Prerequisites:* ENGL 205. *Terms Offered:* Fall.

ENGL 340 The Modern Novel (3) Evolution of the novel across the 20th and 21st centuries, examining narrative fragmentation, unreliable narration, modernism, and postmodern aesthetic experiments. *Prerequisites:* ENGL 205. *Terms Offered:* Spring.

ENGL 490 Senior Seminar in Literary Research (3) Intensive capstone seminar focused on a specialized author or movement, requiring an original 25-page scholarly research thesis. *Prerequisites:* ENGL 301, senior standing, and departmental permission. *Terms Offered:* Fall, Spring.

§9.8 History (HIST)

HIST 101 United States History to 1877 (3) Survey of North American colonization, the American Revolution, constitutional formation, the expansion of chattel slavery, westward expansion, the Civil War, and Reconstruction. *Prerequisites:* None. *Terms Offered:* Fall.

HIST 102 Western and World Civilizations II (3) Global history from the Enlightenment through European imperialism, the Industrial Revolution, world wars, totalitarianism, decolonization, and globalization. *Prerequisites:* None. *Terms Offered:* Spring.

HIST 201 Historical Methods and Historiography (3) Introduction to historical research methodologies, primary source evaluation, archival analysis, historical interpretation controversies, and bibliographic conventions. *Prerequisites:* HIST 101 or HIST 102; ENGL 102. *Terms Offered:* Fall, Spring.

HIST 204 American Labor History (3) Work, workers, and labor movements in the United States from industrialization to the present, with emphasis on primary sources. *Prerequisites:* HIST 101 or sophomore standing. *Terms Offered:* Fall.

HIST 220 The American Civil War and Reconstruction (3) Socioeconomic origins of the sectional conflict, military campaigns, emancipation policies, political battles of Reconstruction, and the memory of the Civil War. *Prerequisites:* HIST 101. *Terms Offered:* Spring.

HIST 301 Colonial and Revolutionary America (3) In-depth analysis of British Atlantic imperialism, Native American interactions, colonial economic development, ideological origins of rebellion, and the American Revolution. *Prerequisites:* HIST 201. *Terms Offered:* Fall.

HIST 325 Modern European Imperialism & Decolonization (3) 19th- and 20th-century European imperial expansion in Africa and Asia, anti-colonial resistance movements, the politics of partition, and post-colonial global legacies. *Prerequisites:* HIST 201. *Terms Offered:* Spring.

HIST 490 Senior Seminar and Capstone in History (3) Culminating research seminar requiring primary archival discovery, historiographical framing, and the completion and oral defense of an extensive senior research thesis. *Prerequisites:* HIST 201, senior standing. *Terms Offered:* Fall, Spring.

§9.9 Mathematics and Statistics (MATH / STAT)

MATH 105 Quantitative Reasoning for Everyday Life (3) Mathematical modeling, percentage analysis, proportional reasoning, financial mathematics (compound interest, annuities, mortgages), probability, and descriptive statistics. *Prerequisites:* Placement into MATH 105. *Terms Offered:* Fall, Spring.

MATH 110 Precalculus Functions and Models (4) Polynomial, rational, exponential, logarithmic, and trigonometric functions, analytic trigonometry, vectors, systems of equations, and polar coordinates. *Prerequisites:* Grade of C or higher in high school algebra II or placement exam. *Terms Offered:* Fall, Spring.

MATH 140 Calculus I (4) Limits, derivatives, applications of differentiation, and an introduction to integration. *Prerequisites:* MATH 110 with a grade of C- or higher, or appropriate score on the Alkimi Math Placement Exam. *Terms Offered:* Fall, Spring.

MATH 141 Calculus II (4) Techniques of integration (parts, trigonometric substitution, partial fractions), applications of definite integrals, improper integrals, parametric curves, polar coordinates, and infinite series. *Prerequisites:* MATH 140 with a grade of C- or higher. *Terms Offered:* Fall, Spring.

MATH 240 Multivariable Calculus (4) Vectors in three dimensions, vector-valued functions, functions of several variables, partial derivatives, directional derivatives, multiple integrals, Green's theorem, Stokes' theorem, and divergence theorem. *Prerequisites:* MATH 141 with a grade of C- or higher. *Terms Offered:* Fall, Spring.

MATH 250 Linear Algebra (3) Systems of linear equations, Gaussian elimination, matrix algebra, vector spaces, subspaces, linear independence, basis, dimension, linear transformations, determinants, eigenvalues, and eigenvectors. *Prerequisites:* MATH 141 with a grade of C- or higher. *Terms Offered:* Fall, Spring.

MATH 280 Discrete Mathematics (3) Propositional and predicate logic, set theory, methods of proof, mathematical induction, relations, functions, combinatorics, graph theory, and Boolean algebra. *Prerequisites:* MATH 140 with a grade of C- or higher. *Terms Offered:* Fall, Spring.

MATH 301 Transition to Advanced Mathematics & Proofs (3) Rigorous training in mathematical proof writing, axiomatic systems, equivalence relations, cardinality, countable and uncountable sets, and foundational analysis. *Prerequisites:* MATH 141 and MATH 250. *Terms Offered:* Fall.

MATH 340 Differential Equations (3) First-order differential equations, linear second-order equations, Laplace transforms, power series solutions, systems of linear differential equations, and qualitative phase-plane analysis. *Prerequisites:* MATH 240 and MATH 250. *Terms Offered:* Spring.

MATH 410 Abstract Algebra I (3) Rigorous algebraic theory of groups, subgroups, cyclic groups, permutation groups, cosets, Lagrange's theorem, normal subgroups, quotient groups, homomorphisms, and introduction to rings. *Prerequisites:* MATH 301. *Terms Offered:* Fall.

MATH 420 Real Analysis I (3) Rigorous theoretical treatment of the real number system, topology of metric spaces, sequences, Cauchy sequences, limits of functions, continuity, uniform continuity, differentiation, and Riemann integration. *Prerequisites:* MATH 240 and MATH 301. *Terms Offered:* Spring.

MATH 490 Senior Mathematics Seminar (3) Independent research on an advanced mathematical topic under faculty guidance, resulting in a written senior monograph and departmental presentation. *Prerequisites:* MATH 410 or MATH 420, senior standing. *Terms Offered:* Spring.

STAT 205 Statistics for Behavioral & Life Sciences (3) Descriptive statistics, probability distributions, normal distributions, confidence intervals, hypothesis testing, t-tests, one-way and two-way ANOVA, chi-square tests, correlation, and simple regression. *Prerequisites:* MATH 105 or higher. *Terms Offered:* Fall, Spring.

STAT 310 Mathematical Statistics and Probability (3) Probability spaces, random variables, joint and conditional distributions, mathematical expectation, moment generating functions, law of large numbers, central limit theorem, and maximum likelihood estimation. *Prerequisites:* MATH 240 and STAT 205. *Terms Offered:* Fall.

§9.10 Nursing (NURS)

NURS 210 Foundations of Professional Nursing Practice (4) Historical, ethical, and theoretical foundations of nursing; nurse-patient therapeutic communication; infection prevention; patient safety; medication administration principles. Includes skills lab. *Prerequisites:* Admission to BSN; BIO 201, BIO 202, and CHEM 101 with C+ or higher. *Terms Offered:* Spring.

NURS 220 Pathophysiology (3) Mechanisms of disease across body systems, as a foundation for nursing assessment and care. *Prerequisites:* BIO 201, BIO 202, and CHEM 101 with grades of C+ or higher. *Terms Offered:* Fall, Spring.

NURS 230 Health Assessment & Clinical Physical Examination (4) Systematic comprehensive health history acquisition and head-to-toe physical assessment techniques across the lifespan, with supervised clinical simulation skills laboratory. *Prerequisites:* Concurrent enrollment in NURS 210 and NURS 220. *Terms Offered:* Spring.

NURS 310 Pharmacology for Clinical Nursing Practice (3) Pharmacokinetics, pharmacodynamics, clinical therapeutic indications, adverse reactions, contraindications, and safe nursing administration of major drug classifications. *Prerequisites:* NURS 220 with a grade of C+ or higher. *Terms Offered:* Fall.

NURS 320 Adult Health Nursing I: Acute Care (6) Nursing management of adult medical-surgical patients experiencing acute and chronic physiological alterations. Includes 3 lecture hours and 9 clinical practicum hours weekly. *Prerequisites:* NURS 210, 220, 230, and 310 with C+ or higher. *Terms Offered:* Fall.

NURS 330 Adult Health Nursing II: Complex Care (6) Advanced clinical nursing care for adults with multisystem, critical, and unstable physiological conditions. Includes 3 lecture hours and 9 clinical practicum hours weekly in hospital intensive units. *Prerequisites:* NURS 320 with a grade of C+ or higher. *Terms Offered:* Spring.

NURS 340 Mental and Behavioral Health Nursing (4) Psychiatric nursing principles, therapeutic milieu, psychopharmacology, and clinical care of clients experiencing mood, anxiety, psychotic, substance-use, and cognitive disorders. Includes clinical rotations. *Prerequisites:* NURS 320 with C+ or higher. *Terms Offered:* Spring.

NURS 350 Nursing Care of Childbearing Families (4) Maternal, fetal, and neonatal nursing care throughout pregnancy, labor, delivery, postpartum recovery, and neonatal stabilization. Includes acute labor and delivery clinical rotations. *Prerequisites:* NURS 320 with C+ or higher. *Terms Offered:* Spring.

NURS 410 Nursing Care of Children and Adolescents (4) Pediatric nursing care addressing developmental milestones, acute childhood illnesses, chronic genetic disorders, and family-centered pediatric clinical nursing. Includes pediatric hospital rotations. *Prerequisites:* NURS 330 and NURS 350 with C+ or higher. *Terms Offered:* Fall.

NURS 420 Community, Population, and Public Health Nursing (4) Epidemiological principles, environmental health, disease prevention, health policy, and community-based interventions for vulnerable populations. Includes clinical field placements. *Prerequisites:* NURS 330 and NURS 340 with C+ or higher. *Terms Offered:* Fall.

NURS 430 Nursing Research, Inquiry, and Evidence-Based Practice (3) Critical appraisal of quantitative and qualitative nursing research, evidence hierarchies, translation of empirical research to clinical protocols, and protection of human research subjects. *Prerequisites:* STAT 205 and NURS 320 with C+ or higher. *Terms Offered:* Fall.

NURS 440 Nursing Leadership, Healthcare Policy, and Management (3) Organizational leadership theory, clinical delegation, conflict negotiation, healthcare finance, legal jurisprudence, quality improvement, and professional transition. *Prerequisites:* NURS 330 and senior standing. *Terms Offered:* Spring.

NURS 490 Clinical Preceptorship & Senior Transition Capstone (5) Intensive clinical immersion paired one-on-one with a practicing registered nurse preceptor (180 clinical hours), consolidating

clinical judgment, patient delegation, and NCLEX-RN synthesis. *Prerequisites:* Completion of all other NURS coursework; final semester standing. *Terms Offered:* Spring.

§9.11 Psychology (PSYC)

PSYC 101 Introductory Psychology (3) Scientific survey of psychological science: neurobiology, sensory perception, learning, memory, cognition, developmental stages, personality theory, psychopathology, and social behavior. *Prerequisites:* None. *Terms Offered:* Fall, Spring.

PSYC 205 Research Methods in Behavioral Sciences (4) Experimental and correlational research designs, internal and external validity, control procedures, ethical standards in human research, statistical analysis, and APA research report writing. Includes laboratory. *Prerequisites:* PSYC 101 and STAT 205 with grades of C- or higher. *Terms Offered:* Fall, Spring.

PSYC 220 Lifespan Developmental Psychology (3) Physical, cognitive, linguistic, and socio-emotional development from conception through infancy, childhood, adolescence, adulthood, and senescence. *Prerequisites:* PSYC 101. *Terms Offered:* Fall, Spring.

PSYC 310 Cognitive Psychology and Neurocognition (3) Theoretical and empirical investigation of human attention, memory architectures, mental representation, problem solving, decision making, and linguistic processing. *Prerequisites:* PSYC 205. *Terms Offered:* Fall.

PSYC 330 Social Psychology and Group Dynamics (3) Social influence, persuasion, conformity, cognitive dissonance, interpersonal attraction, prejudice, aggression, altruism, and collective behavior. *Prerequisites:* PSYC 101. *Terms Offered:* Spring.

PSYC 350 Abnormal Psychology and Clinical Disorders (3) Etiology, symptomatology, DSM-5 diagnostic criteria, neurobiological factors, and evidence-based therapeutic treatments for psychological disorders. *Prerequisites:* PSYC 101. *Terms Offered:* Fall, Spring.

PSYC 490 Senior Seminar in Psychological Science (3) Advanced capstone seminar examining contemporary theoretical controversies in behavioral science, culminating in an independent research empirical proposal and defense. *Prerequisites:* PSYC 205 and senior standing. *Terms Offered:* Fall, Spring.

§9.12 Business Administration (BUS / ACCT / FIN / MGT / MKT)

ACCT 201 Financial Accounting (3) Introduction to financial reporting, accounting cycle, transaction recording, balance sheets, income statements, cash flows, inventory valuation, and corporate equity. *Prerequisites:* MATH 105 or higher. *Terms Offered:* Fall, Spring.

ACCT 202 Managerial Accounting (3) Internal cost accounting systems, job-order and process costing, cost-volume-profit analysis, budgeting, variance analysis, and managerial decision modeling. *Prerequisites:* ACCT 201. *Terms Offered:* Fall, Spring.

BUS 210 Legal Environment of Business & Corporate Ethics (3) Constitutional law, tort liability, contract formation, commercial paper, agency, business associations, regulatory compliance, antitrust, and ethical corporate governance. *Prerequisites:* Sophomore standing. *Terms Offered:* Fall, Spring.

FIN 301 Principles of Corporate Finance (3) Financial analysis, time value of money, discounted cash flow valuation, capital budgeting, cost of capital, capital structure, dividend policy, and working capital management. *Prerequisites:* ACCT 201 and STAT 205. *Terms Offered:* Fall, Spring.

MGT 301 Principles of Management and Leadership (3) Management theory, organizational structures, strategic planning, motivation, leadership dynamics, team decision making, change management, and corporate culture. *Prerequisites:* Sophomore standing. *Terms Offered:* Fall, Spring.

MKT 301 Principles of Marketing Strategy (3) Target marketing, market segmentation, consumer behavior, market research, product life cycles, pricing dynamics, promotional campaigns, and global distribution. *Prerequisites:* ECON 201 and sophomore standing. *Terms Offered:* Fall, Spring.

BUS 350 Business Information Systems and Analytics (3) Role of information systems in competitive business strategy, enterprise systems (ERP/CRM), relational business databases, business intelligence, and predictive dashboard analytics. *Prerequisites:* CS 150 or BUS 210. *Terms Offered:* Fall, Spring.

BUS 490 Strategic Management & Corporate Policy Capstone (3) Integrative senior capstone utilizing comprehensive case studies and business simulation games to synthesize accounting, financial, marketing, and operational strategies into cohesive corporate competitive advantages. *Prerequisites:* FIN 301, MGT 301, MKT 301, and senior standing. *Terms Offered:* Fall, Spring.

§9.13 Core Interdisciplinary Courses (CORE / FYS)

FYS 101 Alkimi Foundations: Inquiries in Science & Society (3) First-year seminar introducing collegiate inquiry, evidence-based discourse, library research, and critical thinking across emerging scientific and societal issues. *Prerequisites:* First-semester undergraduate standing. *Terms Offered:* Fall.

CORE 400 Senior Interdisciplinary Capstone Seminar (2) Culminating Core experience bringing together seniors across diverse academic majors to analyze multidisciplinary challenges through collaborative case research and public oral presentations. *Prerequisites:* Senior standing (90+ earned credits) and completion of Core Writing sequence. *Terms Offered:* Fall, Spring.