B.S. Degree
Biology Major
2022/2023 Catalog

This program plan is valid only if the student registers for, and completes, a term at Brenau by summer 2023. If the student defers admission to fall 2023 or after, the student must contact the adviser to change to the subsequent catalog.

Women's College students must complete the GOLD Program Curriculum. The number of courses required will be based on the number of hours of transfer credit accepted.

Student Name _____

Id No _____

Previous Degree: _____ A.A. _____ A.S. _____ Bachelor's

Where/term degree earned _____

If the student transfers fewer than 24 post-secondary school hours to Brenau, one of the following courses is required to graduate:
AS 100W 1ST Year Experience/or AS 110 1st Year Seminar _____

Liberal Education:

The Liberal Education program is divided into four portals. Please see the Brenau University catalog or the Brenau University web site for a list of applicable courses for each requirement. ***If the student earned a previous degree (must be A.A., A.S., or Bachelor's Degree) from a regionally accredited institution, the Liberal Education section of the student's program is considered complete.***

World Understanding	***Term***	***Grade***	***Course Number & Title***
Historical Perspective (3 hrs)	_____	_____	_____
Global Awareness (3 hrs)	_____	_____	_____
Civic Engagement (3 hrs)	_____	_____	_____

Scientific & Analytic Curiosity	
Mathematics (3 hrs)	Satisfied by major course.
Science (7-8 hrs)	Satisfied by major course.
	Satisfied by major course.
Reasoning (3-4 hrs)	Satisfied by major course.

Artistic & Creative Imagination			
Fine Arts (3 hrs)	_____	_____	_____
Literature (3 hrs)	_____	_____	_____
Lifetime Fitness (3 hrs) *(Undergraduate students not enrolled in the Women's College may take HS 105 (3 hours) to satisfy this requirement.)*	_____	_____	HL _____ Title: _____
	_____	_____	DA/LS/*or* LF _____ Title: _____
	_____	_____	DA/LS/LF/*or* HL _____ Title: _____

Note: For Lifetime Fitness, Women's College students must take the three, one-hour courses as outlined above. LF 199 can count as either activity (LF) or classroom (HL) P.E.

Communication & Language Fluency			
Writing (6 hrs)	_____	_____	EH 101 Written Communication
	_____	_____	EH 102 Reading & Research Writing
Speaking (3 hrs)	_____	_____	_____
Modern Language (0-3 hrs)	_____	_____	FH/or SH 102/ *(or higher)*
	Must complete language through the high beginner level (102 or equivalent. If 101 & 102 are taken, 101 can be applied toward the Communication requirement or used as a general elective. May be placed into 102 via WebCape or exempted by competency exam (BYU FLAT test or CLEP).		
Communication (3 hrs)	_____	_____	_____

Comments:

_____

_____

☐ Needs math placement exam.
☐ Needs English placement exam.

Program Plan Revised by: _____ Date _____

_____ _____

_____ _____

_____ _____

Revised 03/2022

B.S. Degree – 2022/2023
Major: Biology

This program plan is valid only if the student registers for, and completes, a term at Brenau by summer 2023. If the student defers admission to fall 2023 or after, the student must contact the adviser change to the subsequent catalog.

Note: Students must earn a cumulative grade point average of 2.0 and a major grade point average of 2.5. Students must earn a grade of "C" or better in all major courses.

MAJOR CORE: (26-31 hours)

Term Grade Course # & Title

_____ _____ HS 205 Science Writing & Research Skills (3)
_____ _____ BY 111 Biological Science I for majors LE (4)
_____ _____ BY 112 Biological Science II for majors LE(4)
_____ _____ BY 206 Microbiology LE (4)
_____ _____ BY 301 Genetics (3)
_____ _____ BY 407 Cell and Molecular Biology (4)
_____ _____ BY 490 Internship (1-6) *(may take up to 6 hrs.)*
_____ _____ BY 499 Senior Seminar (3)

OTHER MAJOR REQUIREMENTS: (34-55 hours)

_____ _____ MS 205 Introduction to Statistics LE(3)
_____ _____ MS 210 Calculus & Analytical Geometry LE(3)
_____ _____ CY 121 General Chemistry I LE(4)
_____ _____ PS 121 General Physics I LE(4)
_____ _____ CY 122 General Chemistry II LE(4)
_____ _____ PS 122 General Physics II LE(4)
_____ _____ CY 201 Organic Chemistry I(4)
_____ _____ CY 202 Organic Chemistry II(4)
_____ _____ CY 305 Biochemistry (4)

This section will not be required of any student in a concentration (Biomedical Science, Pre-PT, Pre-Professional Healthcare)

_____ _____ BY 304 Plant Sciences (4)
_____ _____ BY 305 Animal Behavior (3)
_____ _____ BY 310 General Zoology (4)
_____ _____ BY 451 Biological Field Studies (4)

Choose two from the list below.

_____ _____ _____
_____ _____ _____

BY 207 Wildlife Management (3)
BY 270/370/470 Res Proj (3 each)
BY 302 Ecology (3)
PS 180 Cities & the Environment (3)

LE –Liberal Education course. All LE courses are noted on the plan whether satisfying a LE requirement or not.

Electives: Electives are not listed on the program plan by the Admissions Office, however all courses are posted to the student's transcript. Electives needed for graduation can be calculated simply by:

Adding
The total number of hours on the student's transcript
(available in CampusWEB)
- hours earned for courses taken at the developmental level
+ courses currently registered for
+ courses still outstanding.

A minimum of 120 semester hours is required to graduate from Brenau University. After completing liberal education and major requirements, if the total number of hours on the student's transcript is not at 120, then the student must take enough general elective hours to reach a cumulative total of 120 hours. If a course is repeated, it is the student's responsibility to contact the Registrar's Office to adjust the earned hours on their transcript so that they are not short hours at graduation. Due to placement, a student may graduate with more than 120 semester hours.

Note: Financial aid recipients cannot receive aid for courses repeated unnecessarily or for courses not specifically required for their degree.

CONCENTRATION:

Students can opt to choose one of the following concentrations: *Biomedical Science, Pre-Professional Healthcare, Pre-Physical Therapy (Pre-PT)*

Biomedical Science Concentration: (23 – 24 hours)

_____ _____ BY 209 Anatomy and Physiology I LE (4)
_____ _____ BY 210 Anatomy and Physiology II LE (4)
_____ _____ BY 270 Research Project I (3)
_____ _____ BY 370 Research Project II (3)
_____ _____ BY 470 Research Project III (3)

Choose two from the list below.

_____ _____ _____
_____ _____ _____

EX 300 Kinesiology (4)
HS 201 Clinical Medical Com (3)
HS 315 Pathophysiology (3)
PY 101 Intro to Psychology LE (3)
PY 202 Hum Growth & Dev (3)
PY 309 Abnormal Psychology (3)

Pre-PT Concentration: (27 hours)

_____ _____ BY 209 Anatomy and Physiology I LE (4)
_____ _____ BY 210 Anatomy and Physiology II LE (4)
_____ _____ EX 300 Kinesiology (4)
_____ _____ PY 101 Intro to Psychology [1](3)
_____ _____ PY 202 Human Growth & Dev (3)
or PY 309 Abnormal Psychology (3)

Choose two from the list below.

_____ _____ _____
_____ _____ _____

EX 301 Biomechanics (3)
EX 305 Physiology of Exercise (3)
HS 315 Pathophysiology (3)

Pre-Professional Healthcare: (21 hours)

_____ _____ BY 209 Anatomy & Physiology I LE(4)
_____ _____ BY 210 Anatomy & Physiology II LE(4)
_____ _____ HS 200 Medical Terminology (1)
_____ _____ HS 315 Pathophysiology (3)
_____ _____ PY 101 Intro to Psychology LE(3)
_____ _____ PY 202 Human Growth & Development (3)
_____ _____ PY 309 Abnormal Psychology (3)

Residency requirement:
A residency requirement of 30 semester hours is required to graduate from Brenau University. This includes a major residency of 21 semester hours.

Note: This program plan is not an official document. It is a tool to assist the student and adviser in schedule planning.

This program plan was prepared by the Registrar's Office.
Revised 03/2022

2022-2023 Liberal Education Courses by Portal

WORLD UNDERSTANDING		
Historical Perspective (3) ***Demonstrate knowledge of major events and movements in history and use this knowledge to generate a more sophisticated understanding of current events.***	HY 201 History of US I HY 202 History of US II HY 205W Women in U.S. History I	HY 206W Women in U.S. History II HY 210 World Civilization I HY 211 World Civilization II (W)
Global Awareness (3) ***Demonstrate an understanding of global issues and their implications for local communities.***	AY 101 Intro to Anthropology BA 200 Survey of Economics ED 250 Intro to Multicultural Educ (W) ED 265 International Studies (W) FM 220 Sustainability and Ethics for Fashion GS 250 Gender & the Global Envir (W) GY 201 Intro to Geography HN 250 Honors Research and Travel (W)	HY 240 Crises in Modern History HYPO 307 Wom/Minor-Contem Hist/Pol (W) IS 101 Current Global Issues (W) MM 260 Media History and Culture PH 207 World Religions
Civic Engagement (3) ***Demonstrate an appreciation of the importance of civic engagement in a global society.***	BA 223 Principles of Leadership (W) ED 208 School and Society (W) GS 200 Intro to Gender Studies (W) HN 220 Honors Sem: World Understanding (W) HS 102 Careers-Helping Profess (W)	MM 101 Intro to Mass Comm MM 200 Diversity in Media PH 222 Introduction to Ethics PO 101 American Government PO 233 Law and Society SY 101 Introduction To Sociology

ARTISTIC & CREATIVE IMAGINATION		
Fine Arts (3) *Understand artistic concepts and traditions through participating in or exposure to artistic endeavors.*	AH 100 Art Appreciation AH 214 art History Special Topics (W) AH 223 Art History I AH 224 Art History II AR 101/101L Foundations: 2D & 3D Design DA 100 Dance Appreciation HN 230 Honors Sem: Art/Creative Imagination (W) ID 308 History of Inter/Architecture I	ID 309 History of Inter/Architecture II (W) MC 101 World Music Appreciation MC 214 Special Topics in Music MC 216 Intro to Arts in Health Care (W) MM 100 Film Appreciation (W) TH 100 Theatre Appreciation TH 221 Theatre History I TH 222 Theatre History II TH 223 Hist. of the Musical Theatre
Literature (3) *To analyze meaning and recognize aesthetic elements in literary texts.*	EH 200 Mythology: Sacred St/Hum Lives (W) EH 201 Western World Literature (W) EH 202 Asian & African Lit EH 203 Varied Voices in American Lit (W) EH 210 British Lit before 1700	EH 211 British Lit after 1700 (W) EH 220 American Lit before 1865 EH 221 American Lit after 1865 (W) EH 245 Women's Literary Studies (W)
Lifetime Fitness (3) *1 hr HL* *1 hr LS/LF/DA* *1 hr either* *Appreciate one's health status and implement a plan for health and fitness.* *Students not enrolled in the day program may take HS 105 (3 hours) to satisfy this requirement.*	DA 101 Ballet Technique DA 102 Ballet Technique DA 108 Jazz Dance Technique DA 109 Jazz Dance Technique DA 118 World Dance DA 119 Tap Dance DA 123 MindBody Yoga DA 151 Ballet Technique DA 152 Ballet Technique DA 158 Jazz Dance Technique DA 159 Jazz Dance Technique DA 160 Ballroom Dancing DA 214 Intermediate Tap Dance	HL 101 Drug Abuse/Alcoholism HL 103 First Aid:Respond to Emergen HL 104 Human Sexuality HL 105 self Defense (W) HL 106 Healthy Habits HS 105 Healthy Lifestyle Habits (3) LF 101 Aerobics LF 105 Fitness Swimming/Walking LF 109 Pers Fitness/Weight Training LF 112 Karate LF 199 Varsity Sports ** LS 104 Golf LS 106 Tennis

****** Taken by Brenau's varsity sport teams. These courses can count toward classroom (HL) or activity (DA/LS/LF) physical education requirements.
(W) Can be taken as a "W" class. "W classes (ex EH 101W) are open only to Women's College students – no exceptions.

Updated 03/2022

2022-2023 Liberal Education Courses by Portal

SCIENTIFIC & ANALYTIC CURIOSITY		
Mathematics (3) *Demonstrate quantitative reasoning through numeric, symbolic, or geometric means.*	MS 100 Quantitative Literacy MS 101 College Algebra	MS 111 Pre-Calculus/Trigonometry MS 210 Calculus and Analytic Geometry
Science (7-8) *(one course must be a 4 hour lab science)* *Demonstrate competency in a specific curriculum and appraise the impact of that science in one's life.*	BY 105/L Human Biology w/lab BY 111/L Biolog Science I (majors) w/lab BY 112/L Biological Sci II (majors) w/lab BY 151/L Biol. Field Studies w/lab BY 206/L Microbiology w/lab BY 209/L Human Anatomy/Phys I w/lab BY 210/L Human Anatomy/Phys II w/lab CY 103/L Principles of Chemistry w/lab CY 110 Forensic Science (can take w/out lab) CY 121/L General Chemistry I w/lab CY 122/L General Chemistry II w/lab	PS 100 Physical Science PS 104 Earth Science PS 110 Physical Geography w/ Lab PS 111 Meteor/Climatology w/ Lab PS 112 Astronomy w/ Lab PS 121/L General College Physics I w/lab PS 122/L General College Physics II w/lab PS 180 Cities & the Environment PY 101 Intro to Psychology ^^ (W) PY 101/L Intro to Psychology Lab ^^ *(^^Can take with/without lab for LE science. If taken with lab, the lab must be take the same term as the lecture.)*
Reasoning (3) *Be able to think critically and solve problems effectively.*	AH 215 The Creative Mind (W) BA 107 Personal Finance BA 203 Critical/Creative Thinking HN 240 Honors Sem: Sci/Analy Cur (W) ID 275 Interior Design – Process (W)	MS 205 Introduction to Statistics MS 207 Problem Solving PH 205 Intro to Philosophy PH 240 Philosophy of Art

COMMUNICATION & LANGUAGE FLUENCY		
Writing(6) *Compose effective and logical written communication.*	EH 101 Written Communication (W)	EH 102 Reading & Research Writing (W)
Speaking (3) *Demonstrate effective oral communication.*	EH 103 Oral Communication (W) HN 210 Hon Sem: Comm/Lang Fluency (W)	MM 105 Effective Interpersonal Comm SP 108 Fundamentals of Speech (W)
Modern Language (0-3) *Communicate in a modern language other than English, and compare global culture(s) where that language is spoken to English-language-based U.S. culture.* ***Must complete language through the high beginner level (102 or equivalent).*** *If 101 & 102 are taken, 101 can be applied toward the Communication requirement or used as a general elective. May be placed into 102 via WebCape or exempted by competency exam (BYU FLAT test or CLEP).* *Note: Please see the catalog for specifics concerning the modern language requirement and placement options.*	FH 101 French Language and Culture I FH 102 French Language and Culture II	SH 101 Spanish Language and Culture I (W) SH 102 Spanish Language and Culture II (W) SH 201 Interm Spanish I w/ Lab
Communication (3) *Apply communication skills in a given context.* *Select from these courses or any from the communication and language fluency portal not already used.*	AH 105 Aesthetic Communication BA 208 Business Communications CS 101 Computer Literacy EH 360 Creative Writing (W) FH 101 French Lang/Culture I	GR 207/L Digital Graphic Des w/lab (W) LE 300 Conflict Resolution (W) MM 215 Persuasion MM 220 Communication Theory SH 101 Spanish Lang/Culture I (W)

(W) Can be taken as a "W" class. "W classes (ex EH 101W) are open only to Women's College students – no exceptions.

Updated 03/2022

The Women's College GOLD Program 2022/2023 Catalog

Student Name _____

Id No _____

This program plan is valid only if the student registers for, and completes, a term at Brenau by summer 2023. If the student defers admission to fall 2023 or after, the student must contact the adviser to change to the subsequent catalog.

Students in The Women's College must complete the GOLD Program Curriculum in order to graduate with a bachelor's degree. Please see the table below for the required course hours. The number of required hours are prorated based on the number of transfer hours. *Students are encouraged to take as many "W" courses as possible.*

- *Students with 15 hours of W courses will have a notation on their undergraduate transcript-indicating enrollment in GOLD Program Curriculum.*
- *Students with 30 hours of W courses will have a separate GOLD certificate posted on the transcript when the degree is completed.*

Track W courses taken below.

Term & Grade		Course/Title	Hours
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Required Hours:

The number of hours required to graduate are based on hours transferred to Brenau by the 1st term enrolled. The number of hours required are:

Hours transferred:	W course hours required for graduation:
0-24	30
25-44	18
45-59	15
60-74	12
75-89	9
90+	6

Listed below are "W" Courses from the 2022-2023 catalog. See future catalog editions for additional W course options added.
Courses with * in title are also LE courses. Courses may count toward the GOLD program and LE simultaneously.

AH 214W	EH 101W	EH 340W	EH 493W	HN 210W	ID 275W	MG 318W	TH 311W
AH 215W	EH 102W	EH 341W	EH 495W	HN 220W	ID 370W	MM 100W	TH 314W
AR 206W	EH 103W	EH 350W	EX 404W	HN 230W	ID 309W	NG 309W	TH 326W
AS 100W	EH 200W	EH 360W	EX 490W	HN 240W	ID 420W	PY 101W	TH 450W
BA 223W	EH 201W	EH 370W	FM 220W	HN 250W	ID 442W	PY 203W	TH 480W
BY 205W	EH 203W	EH 380W	FM 235W	HN 260W	ID 443W	PY 215W	WL 490W
BY 301W	EH 211W	EH 390W	FM 305W	HN 499W	ID 445W	PY 230W	
DA 304W	EH 221W	EH 446W	FM 316W	HR 333W	ID 490W	PY 309W	
ED 208W	EH 245W	EH 460W	GR 207W	HS 102W	IS 101W	PY 310W	
ED 213W	EH 310W	EH 461W	GS 200W	HS 205W	LE 300W	PY 380W	
ED 250W	EH 320W	EH 480W	GS 250W	HY 205W	LE 495W	SH 101W	
ED 265W	EH 330W	EH 490W	GS 390W	HY 206W	LF 199W	SH 102W	
ED 342W	EH 331W	EH 491W	HL 105W	HYPO 307W	MC 216W	SP 108W	

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