



**B.S. Degree  
Computer Science Major  
2021/2022 Catalog**

Student Name _____
Id No _____
Previous Degree: _____ A.A. _____ A.S. _____ Bachelor's
Where/term degree earned _____

This program plan is valid only if the student registers for, and completes, a term at Brenau by summer 2022. If the student defers admission to fall 2022 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.

**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.***

<b>World Understanding</b>	<b>Term</b>	<b>Grade</b>	<b>Course Number &amp; Title</b>
Historical Perspective (3 hrs)	_____	_____	_____
Global Awareness (3 hrs)	_____	_____	_____
Civic Engagement (3 hrs)	_____	_____	_____
<b>Scientific &amp; Analytic Curiosity</b>			
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.		
<b>Artistic &amp; Creative Imagination</b>			
Fine Arts (3 hrs)	_____	_____	_____
Literature (3 hrs)	_____	_____	_____
Lifetime Fitness (3 hrs)	_____	_____	HL _____ Title: _____
<small>(Undergraduate students not enrolled in the Women's College may take HS 105 (3 hours) to satisfy this requirement.)</small>	_____	_____	DA/LS/or LF _____ Title: _____
	_____	_____	DA/LS/LF/or HL _____ Title: _____
<small>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.</small>			
<b>Communication &amp; Language Fluency</b>			
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)
	<small>Must complete language through the high beginner level (102 or equivalent). If 101 &amp; 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).</small>		
Communication (3 hrs)	_____	_____	_____

Comments: \_\_\_\_\_  
\_\_\_\_\_

Program Plan Revised by: \_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_  
\_\_\_\_\_

- Needs math placement exam.
- Needs English placement exam.

**B.S. Degree – 2021/2022**  
**Major: Computer Science**

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**Note: No grade less than “C” may be applied in the major. Students must earn a cumulative grade point average of 2.00 and a major grade point average of 2.5.**

**NOTES:**

**All courses are 3 hours unless otherwise noted. ( )**

**Lab Science Requirement:** (28 hours)

*(Choose two from the following)*

- \_\_\_\_\_ BY 111 Biological Science I (majors) <sup>LE</sup> (4)
- \_\_\_\_\_ BY 112 Biological Science II (majors) <sup>LE</sup> (4)
- \_\_\_\_\_ CY 121 General Chemistry I <sup>LE</sup> (4)
- \_\_\_\_\_ CY 122 General Chemistry II <sup>LE</sup> (4)
- \_\_\_\_\_ PS 112 Astronomy w/ Lab <sup>LE</sup> (4)
- \_\_\_\_\_ PS 121 Gen College Physics I w/ Lab <sup>LE</sup> (4)
- \_\_\_\_\_ PS 122 Gen Coll Physics II w/ Lab <sup>LE</sup> (4)

**Major Coursework:** (54 hours)

<b>Term</b>	<b>Grade</b>	<b>Course # &amp; Title</b>
_____	_____	MS 205 Introduction to Statistics <sup>LE</sup>
_____	_____	MS 210 Calculus/Analyt Geometry <sup>LE</sup>
_____	_____	MS 240 Discrete Mathematics
_____	_____	PH 250 Ethics of Inform Techn
_____	_____	CS 115 Program/Prob Solving I (5)
_____	_____	CS 116 Program/Problem Solv II (5)
_____	_____	CS 211 Systems Architecture (4)
_____	_____	CS 220 Human-Computer Interaction
_____	_____	CS 310 Algorithms/Data Structures (4)
_____	_____	CS 312 Networking
_____	_____	CS 315 Database Systems
_____	_____	CS 320 Web/Mobile Applications
_____	_____	CS 330 Artificial Intelligence
_____	_____	CS 340 Informatics
_____	_____	CS 410 Theory of Computation
_____	_____	CS 499 Senior Capstone

**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.

**Residency requirement:**

A residency requirement of 31 semester hours is required to graduate from Brenau University. This includes a major residency of 21 semester hours.

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

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



## 2021-2022 Liberal Education Courses by Portal

<b>WORLD UNDERSTANDING</b>		
<b>Historical Perspective (3)</b> <i>Demonstrate knowledge of major events and movements in history and use this knowledge to generate a more sophisticated understanding of current events.</i>	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)
<b>Civic Engagement (3)</b> <i>Demonstrate an appreciation of the importance of civic engagement in a global society.</i>	BA 223 Principles of Leadership ED 208 School and Society (W) GS 200 Intro to Gender Studies (W) HN 220 Honors Sem: World Understanding 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
<b>Global Awareness (3)</b> <i>Demonstrate an understanding of global issues and their implications for local communities.</i>	AY 101 Intro to Anthropology BA 200 Survey of Economics ED 250 Intro to Multicultural Educ (W) ED 265 International Studies (W) 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

<b>ARTISTIC &amp; CREATIVE IMAGINATION</b>		
<b>Fine Arts (3)</b> <i>Understand artistic concepts and traditions through participating in or exposure to artistic endeavors.</i>	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 F (W)Im Appreciation TH 100 Theatre Appreciation TH 221 Theatre History I TH 222 Theatre History II TH 223 Hist. of the Musical Theatre
<b>Literature (3)</b> <i>To analyze meaning and recognize aesthetic elements in literary texts.</i>	EH 200 Mythology: Sacred St/Hum Lives (W) EH 201 Western World Literature (W) EH 202 Asian & African Lit EH 203 or 203W Varied Voices in American Lit 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)
<b>Lifetime Fitness (3)</b> 1 hr HL 1 hr LS/LF/DA 1 hr either <i>Appreciate one's health status and implement a plan for health and fitness.</i>  <i>Students not enrolled in the day program may take HS 105 (3 hours) to satisfy this requirement.</i>	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 102 Exercise Science HL 103 First Aid:Respond to Emergen HL 104 Human Sexuality HL 105 or 105W Self Defense 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.

## 2021-2022 Liberal Education Courses by Portal

<b>SCIENTIFIC &amp; ANALYTIC CURIOSITY</b>		
<b>Mathematics (3)</b> <i>Demonstrate quantitative reasoning through numeric, symbolic, or geometric means.</i>	MS 100 Quantitative Literacy MS 101 College Algebra	MS 111 Pre-Calculus/Trigonometry MS 210 Calculus and Analytic Geometry
<b>Science (7-8)</b> <i>(one course must be a 4 hour lab science)</i> <i>Demonstrate competency in a specific curriculum and appraise the impact of that science in one's life.</i>	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 ^^ <i>(^^Can take with/without lab for LE science. If taken with lab, the lab <u>must</u> be take the same term as the lecture.)</i>
<b>Reasoning (3)</b> <i>Be able to think critically and solve problems effectively.</i>	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

<b>COMMUNICATION &amp; LANGUAGE FLUENCY</b>		
<b>Writing(6)</b> <i>Compose effective and logical written communication.</i>	EH 101 Written Communication (W)	EH 102 Reading & Research Writing (W)
<b>Speaking (3)</b> <i>Demonstrate effective oral communication.</i>	EH 103 Oral Communication (W) HN 210 Hon Sem: Comm/Lang Fluency (W)	MM 105 Effective Interpersonal Comm SP 108 or 108W Fundamentals of Speech (W)
<b>Modern Language (0-3)</b> <i>Communicate in a modern language other than English</i>  <b>Must complete language through the high beginner level (102 or equivalent).</b> <i>If 101 &amp; 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).</i>  <i>Note: Please see the catalog for specifics concerning the modern language requirement and placement options.</i>	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 Intern Spanish I w/ Lab
<b>Communication (3)</b> <i>Apply communication skills in a given context.</i>  <i>Select from these courses or any from the communication and language fluency portal not already used.</i>	AH 105 Aesthetic Communication BA 208 Business Communications CS 101 Computer Literacy EH 360 Creative Writing (W) GR 207/L Digital Graphic Des w/lab (W)	LE 300 Conflict Resolution (W) MM 215 Persuasion MM 220 Communication Theory

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