

# Program Change Request

Date Submitted: 10/24/18 3:01 pm

Viewing: **BS-BICH : Biochemistry - BS**

Last approved: 03/01/18 3:17 pm

Last edit: 11/08/18 8:02 pm

Changes proposed by: soochi

Catalog Pages Using  
this Program

[Biochemistry - BS](#)

## Contact(s)

Name	E-mail	Phone
Khara Spears	soochi@tamu.edu	(979) 845-0198

Academic level	Undergraduate
Effective Term	2019-2020
Department	Biochemistry & Biophysics
College	Agriculture & Life Sciences
Program type	Degree
Degree designation	BS - Bachelor of Science
With a major in	Biochemistry (BICH)
Associated Program	<b>Not Applicable</b>
Catalog Program Title	Biochemistry - BS
CIP and Fund code	26020200

## Rationale for Proposal

Program hours 120

Is this program eligible  
for financial aid?

Will program hours  
change  
(increase/decrease)  
due to the proposed  
curriculum changes?

Program delivery mode  
On-campus

## In Workflow

- BCBP Department Head
- Curricular Services Review
- AG Committee Preparer UG
- AG Committee Chair UG
- AG College Dean UG
- UCC Preparer
- UCC Chair
- Faculty Senate Preparer
- Faculty Senate
- Provost II
- President
- Curricular Services

## Approval Path

- 10/24/18 1:28 pm  
David Peterson (dopeterson): Approved for BCBP Department Head
- 10/24/18 2:11 pm  
Angel Mario Carrizales (carr1214): Rollback to Initiator
- 10/24/18 7:48 pm  
David Peterson (dopeterson): Approved for BCBP Department Head
- 10/26/18 1:59 pm  
Angel Mario Carrizales (carr1214): Approved for Curricular Services Review
- 10/26/18 2:06 pm  
Dawn Kerstetter (dkerstetter): Approved for AG Committee Preparer UG
- 11/02/18 11:42 am  
Bob Knight (bob-knight): Approved for AG Committee Chair UG
- 11/02/18 12:45 pm  
Dawn Kerstetter (dkerstetter): Approved for AG College Dean UG
- 11/06/18 9:16 am  
Sandra Williams (sandra-williams): Approved for UCC Preparer
- 12/10/18 10:54 am  
Terra Bissett (t.bissett):

## Catalog Program Requirements

## History

1. Oct 17, 2016 by soochi
2. Mar 1, 2018 by soochi

## Plan of Study Grid

First Year		Semester Credit Hours
Fall		
<u>BICH 101/GENE 101</u>	Perspectives in Biochemistry and Genetics	1
<del>CHEM 101</del>	<del>Course CHEM 101 Not Found</del>	<del>3</del>
<del>CHEM 111</del>	<del>Fundamentals of Chemistry Laboratory I</del>	<del>1</del>
<b>CHEM 119</b>	<b>Fundamentals of Chemistry I</b>	<b>4</b>
<u>ENGL 104</u>	Composition and Rhetoric	3
<u>MATH 151</u>	Engineering Mathematics I	4
or <u>MATH 171</u>	or Analytic Geometry and Calculus	
Free elective 1		3
	Semester Credit Hours	15
Spring		
<u>BIOL 111</u>	Introductory Biology I	4
<del>CHEM 102</del>	<del>Course CHEM 102 Not Found</del>	<del>3</del>
<del>CHEM 112</del>	<del>Fundamentals of Chemistry Laboratory II</del>	<del>1</del>
<del>ENGL 210</del>	<del>Technical and Business Writing</del>	<del>3</del>
<b>CHEM 120</b>	<b>Fundamentals of Chemistry II</b>	<b>4</b>
<u>MATH 152</u>	Engineering Mathematics II	4
or <u>MATH 172</u>	or Calculus	
<b>University Core Curriculum 2</b>		<b>3</b>
	Semester Credit Hours	15
Second Year		
Fall		
<u>BIOL 112</u>	Introductory Biology II	4
<u>CHEM 227</u>	Organic Chemistry I	3
<u>CHEM 237</u>	Organic Chemistry Laboratory	1
<b>ENGL 210</b>	<b>Technical and Business Writing</b>	<b>3</b>
<u>MATH 251</u>	Engineering Mathematics III 2	3
<del>University Core Curriculum 2</del>		<del>3</del>
Free elective 1		1
	Semester Credit Hours	15
Spring		
<u>CHEM 228</u>	Organic Chemistry II	3
<u>CHEM 238</u>	Organic Chemistry Laboratory	1
<u>GENE 302</u>	Principles of Genetics	3
<u>GENE 312</u>	Comprehensive Genetics Laboratory	1
<del>PHYS 218</del>	<del>Mechanics</del>	<del>4</del>
<b>PHYS 206</b>	<b>Newtonian Mechanics for Engineering and Science</b>	<b>4</b>
<b>&amp; PHYS 226</b>	<b>and Physics of Motion Laboratory for the Sciences</b>	
<u>University Core Curriculum 2</u>		<u>3</u>
	Semester Credit Hours	15
Third Year		
Fall		
<u>BICH 404</u>	Biochemical Calculations	2
<u>BICH 440</u>	Biochemistry I 3	3
<u>BICH 491</u>	Research	1
<del>CHEM 327</del>	<del>Physical Chemistry I</del>	<del>3</del>
<del>PHYS 208</del>	<del>Electricity and Optics</del>	<del>4</del>
<b>PHYS 207</b>	<b>Electricity and Magnetism for Engineering and Science</b>	<b>4</b>
<b>&amp; PHYS 227</b>	<b>and Electricity and Magnetism Laboratory for the Sciences</b>	
<u>University Core Curriculum 2</u>		<u>3</u>
<b>Free Electives 1</b>		<b>2</b>
	Semester Credit Hours	15
Spring		
<u>BICH 441</u>	Biochemistry II	3
<u>BICH 414</u>	Biochemical Techniques I	2
or <u>BICH 432/GENE 432</u>	or Laboratory in Molecular Genetics	

<a href="#">BICH 491</a>	Research	1
<del>CHEM 328</del>	<del>Physical Chemistry II</del>	<del>3</del>
<a href="#">CHEM 327</a>	<a href="#">Physical Chemistry I</a>	<a href="#">3</a>
<a href="#">University Core Curriculum</a> 2		<a href="#">3</a>
Free elective 1		3
	Semester Credit Hours	15
Fourth Year		
Fall		
<a href="#">BICH 431/GENE 431</a>	Molecular Genetics	3
<a href="#">BICH 491</a>	Research	1
<a href="#">BIOL 351</a>	Fundamentals of Microbiology	4
<del>Biochemistry elective 4</del>		<del>3</del>
<a href="#">CHEM 328</a>	<a href="#">Physical Chemistry II</a>	<a href="#">3</a>
<a href="#">University Core Curriculum</a> 2		<a href="#">3</a>
	Semester Credit Hours	14
Spring		
<a href="#">BICH 491</a>	Research 4	<a href="#">1</a>
<del>Biochemistry elective 4</del>		<del>3</del>
<a href="#">Biochemistry elective 5</a>		<a href="#">6</a>
<a href="#">University Core Curriculum</a> 2		<a href="#">6</a>
Free electives 1		3
	Semester Credit Hours	16
	Total Semester Credit Hours	120

1 Often used for a minor degree. Students intending to pursue and advance degree in biochemistry are strongly encouraged to use some free electives for additional upper division courses in [BICH](#), [GENE](#), [BIOL](#), [CHEM](#), [MATH](#) or [STAT](#). Except: [BICH 303](#), [BICH 410-412](#); [MATH 100-104, 131-148](#).

2 To be selected from the [University Core Curriculum](#). Of the 21 hours shown as [University Core Curriculum](#) electives, 3 must be from language, philosophy and culture, 3 from creative arts, 3 from social and behavioral sciences, 6 from American history, 6 from [POLS 206](#) and [POLS 207](#). The Graduation requirements include a requirement for 3 hours of [International and Cultural Diversity](#) courses and 3 hours of [Cultural Discourse](#) courses which may be met by courses satisfying the language, philosophy and culture, creative arts, social and behavioral sciences, government/political science and American history requirements if they are also on the approved list of international and cultural diversity courses.

3 Before registration in [BICH 440](#), students must have attained a grade of C or better in each of these courses: [CHEM 227](#), [CHEM 228](#), [CHEM 237](#), [CHEM 238](#).

4 The fourth registered hour of research must be taken as writing intensive.

5 Hours to be selected from any 400-level course in BICH with approval of student's academic advisor. [BICH 404](#), [BICH 414](#), [BICH 431/GENE 431](#), [BICH 432/GENE 432](#), [BICH 440](#), [BICH 441](#), or [BICH 491](#) may not be used to satisfy this requirement.

Students must make a grade of C or better in all major coursework used to satisfy degree plan.

Additional information	<del>Please remove MATH 150 from the General Elective exemptions. We would like MATH 150 to be included in general electives for BICH majors. Also, we are no longer accepting any alternatives to BIOL 351. Students may only take BIOL 351 to fulfill that requirement.</del>
Required Proposal Forms	<a href="#">BS-BICH-Degree-Evaluation-2018-2019.pdf</a> <a href="#">PresidentApprovalFacultySenateItems121117.pdf</a> <a href="#">BICH Degree Eval 2019-2020.pdf</a>
Reviewer Comments	<b>Angel Mario Carrizales (carri1214) (10/24/18 2:11 pm):</b> Rollback: Per the initiator's request. <b>Terra Bissett (t.bissett) (12/10/18 10:54 am):</b> UCC approved December 2018.

Key: 6







Total Credits and GPA 0.000

unofficial evaluation

**Area Social and Behavioral Sciences ( 3.000 credits ) - Not Met**

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Gra
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No	A.		Social Science Rqmt		3hrs									
			Select from courses with the Social and Behavioral Science attribute [KSOC].											

Total Credits and GPA 0.000

unofficial evaluation

**Area : Citizenship ( 12.000 credits ) - Not Met**

**Description** Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credi
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No		A.	American History Rqmt		6hrs									
			Select from any course with the [KHIS] attribute.											

No	AND	B.	Political Science Rqmt		6hrs									
			Take POLS 206 and POLS 207.											

Total Credits and GPA 0.0

unofficial evaluation

**Area General Electives ( 12.000 credits ) - Not Met**

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Gra
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No		A.	General Electives		12hrs									
			Select from any course 100-499 not used elsewhere (except BICH 303, 410-412; ENGL 100-102; MATH 100-104, 130-148, 230).											

Total Credits and GPA 0.000

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**Area : Work Not Applied - Met**

**Description** See advisor for acceptable substitutions.

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credi
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No		A.	Courses not applied										
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Total Credits and GPA 0.0

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**Area University Writing Requirement - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Gra
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No	A.		Writing Requirement											
<p>Two courses required. Only sections of BICH 491; BIOL 351; UGST 491 with the Writing attribute [UWRT] may be used to satisfy this requirement.</p>														

Total Credits and GPA 0.000

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**Area Int'l & Cult Diversity - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Gra
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No	A.		Int'l & Cultural Diversity				<del>6hr</del> 3hr							
<p>Select from courses with the International and Cultural Diversity attribute [UICD] (except sections of BUSN 289 with the UWRT attribute).</p>														

Total Credits and GPA 0.000

> AREA CULTURAL DISCOURSE

unofficial evaluation A. CULTURAL DISCOURSE 3hr

**Area Foreign Language - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Gra
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No	A.		Foreign Language Rqmt											
<p>Complete one of the following: 1. Two years of the same foreign language in High School. 2. A two semester sequence of the same foreign language for University credit.</p>														

Total Credits and GPA 0.000

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**Area : Residence Requirement - Not Met**

**Description** A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field.

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Gra
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No	A.		Residence - Major				12hrs							
<p>Select from BICH 300-499; GENE 301, 302, 431, 432.</p>														

No	AND	B.	Residence 300-499				24hrs							
<p>Select from any 300-400 level course at Texas A&amp;M.</p>														

Total Credits and GPA 0.0



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**Area :** GPR-Major - Not Met

**Description :** A minimum GPR of 2.000 is required in all major field of studies courses.

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credi
							Credits	Courses						

No	A.		Major	GPR	23+	hrs								
			Includes BICH 100-499; GENE 301, 302, 431, 432.											

Total Credits and GPA 0.0

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