

BIOTECHNOLOGY (BTEC)

Received 12/14/06

UNIVERSITY OF HOUSTON
COLLEGE OF TECHNOLOGY

ENGINEERING TECHNOLOGY
BACHELOR OF SCIENCE

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NAME _____ UHID _____ APPROVED JAN 24 2007

UNIVERSITY CORE REQUIREMENTS (42 SH)

GR SH AH

Communication (6 SH)

ENGL 1303 English Composition I	___	___	___
ENGL 1304 English Composition II	___	___	___

Writing in the Discipline (WID) (3SH)*

COMM 1302 (preferred)	___	___	___
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History/Government (12 SH)

HIST 1377 US History to 1867	___	___	___
HIST 1379 US History since 1867	___	___	___
POLS 1336 US & TX Const/Politics	___	___	___
POLS 1337 US Government	___	___	___

Humanities* (3 SH)

Phil 1305 Ethics	___	___	___
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Visual/Performing Arts* (3 SH)

_____	___	___	___
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Social/Behavioral Sciences (3 SH)

_____	___	___	___
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Natural Sciences* (12 SH)

BIOL 1361/1161 Intro to Biological Science	___	___	___
CHEM 1331/1111 Fund of Chem & Lab	___	___	___
PHYS 1301/1121 Intro to General Phy & Lab	___	___	___

COLLEGE AND DEPARTMENT REQUIREMENTS (25 SH)

ELET 2300 Intro to C++ programming	___	___	___
ITEC 2334 Information Systems Apps	___	___	___
PHIL 3354 Medical Ethics	___	___	___
TELS 3340 Org Leadership & Suprv or	___	___	___
HDCS 3300 Org Decisions in Tech	___	___	___
TELS 3363 Technical Communication	___	___	___

Math Reasoning (9 SH)**

MATH 1330 Precalculus	___	___	___
MATH 1431 Elements of Calculus	___	___	___
TMTH 3360 Applied Tech Statistics	___	___	___
or PSYC 3301			

** Students are required to have credit for College Algebra through the Math Placement Exam, CLEP or completion of the course.

*Refer to class schedule for lists of courses which satisfy University requirements.

36 advanced (3000- or 4000-level) semester hours must be completed.

Total hours required: 122-123 semester hours

Texas Success Initiative requirements must be met.

MAJOR CORE REQUIREMENTS (42 SH)

GR SH AH

BIOL 1362/1162 Intro to Biological Science	___	___	___
CHEM 1332/1112 Fund of Chem & Lab	___	___	___
BIOL 2333/2133 Elem Microbiology & lab	___	___	___
BTEC 2320 Biotechnology Regulatory Env	___	___	___
BTEC 2321 Good Manufacturing Practices	___	___	___
BCHS 3304/3201 Gen Biochemistry & Lab	___	___	___
BIOL 3301 Genetics	___	___	___
BTEC 3100 Instrum & Msremnt BTEC Lab	___	___	___
BTEC 3301 Prin of Bioinform/Geon/Proteom	___	___	___
CHEM 3221 Organic Chemistry Lab	___	___	___
CHEM 3331 Fund of Organic Chemistry	___	___	___
BCHS 4317 Principles of Biotechnology	___	___	___
BIOL 4320 Molecular Biology	___	___	___
BTEC 4350 Capstone Experience	___	___	___

Choose either the **Biomufacturing** or **Bioinformatics Track**.

Biomufacturing Track (13 SH Minimum)

BTEC 3320 Intro QA/QC Drugs & Biologics	___	___	___
BIOL 4319 Microbial Genetics	___	___	___
BTEC 4301 Principles of Bioprocessing	___	___	___
BTEC 4101 Principles of Bioprocessing Lab	___	___	___
**Approved Elective(3SH)	___	___	___

Bioinformatics Track (12 SH Minimum)

ITEC 3343 System Analysis & Design	___	___	___
ITEC 3365 Database Design	___	___	___
BTEC 4300 Prin of Bioinformatics	___	___	___
**Approved Elective (3SH)	___	___	___

**Electives to be chosen from approved list.

Approved Electives:

BCHS 4306 Nucleic Acid	
BIOL 4323 Immunology	
BIOL 4374 Cell Biology	
TELS 4350 Industrial & Environmental Safety	

For graduation with Honors, see Undergraduate Catalog.

APPROVALS:

Student Signature	Date
Advisor	Date
Department Chair	Date

Freshman		Sophomore		Junior		Senior	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
ENGL 1303 (score of 240 or higher on THEA writing test or equivalent)	ENGL 1304 or ITEC 3372 (ENGL 1303 or equiv)	ELET 2300 C++ (Math 1330 or equivalent)	ITEC 2334 (ITEC 1301 or ELET 2300 or Equivalent)	BCHS 3304/3201 (CHEM 3331/3221)	BTEC 3301 (BIOL 2333/2133, 3301, ITEC 2334)	BCHS 4317 (BIOL 3301)	BIOL 4320 (BIOL 3301)
BIOL 1361/1161 (MATH 1310 or Equiv)	BIOL 1362/1162 (MATH 1310 or Equiv)	BIOL 2333/2133 (BIOL 1361/1161, 1362/1162, CHEM 1331, 1332 or equiv)	BIOL 3301 (BIOL 1361/1161, 1362/1162, CHEM 1331, 1332 or equiv)	TELS 3340 (ENGL 1304)	TELS 3363 (ENGL 1303 with grade of C or higher)	COMM 1302 (Enrolled or have taken ENGL 1303)	Vis. and Perf. Arts (see core approved list in class schedule)
MATH 1330 (MATH 1310 or equiv or Appropriate score on MPE)	MATH 1431 (MATH 1330 or equiv or Appropriate score on MPE)	CHEM 3331/3221 (CHEM 1332)	PHYS 1301/1121 (MATH 1310 or Equiv)	TMTH 3360 (ITEC 1300** & 6 Hrs Math/Reasoning) **will accept ITEC 1301	PHIL 3354 (3 hrs PHIL or Consent of instructor)	HIST 1378 (no prerequisite)	POLS 1337 (no prerequisite)
CHEM 1331/1111 (MATH 1310 & High school Chemistry or CHEM 1301)	CHEM 1332/1112 (MATH 1310 & High school Chemistry or CHEM 1301)	BTEC 2320 (BIOL 1361/1111, CHEM 1331/1111)	BTEC 2321 (BIOL 1361/1161, CHEM 1332/1112)	ITEC 3343 (ITEC 2334 & enrolled or have taken TMTH 3360) OR BTEC 3320 (CHEM 3331/3221, BTEC 2320, 2321)	ITEC 3365 (ITEC 3343) OR Approved Elec.	BIOL 4319 (BIOL 3301, BCHS 3304) OR BTEC 4300 (BTEC 3401, ITEC 2334)	BTEC 4301 (BTEC 2321, BCHS 3304/3201 & BIOL 2333/2133) & BTEC 4101 (enrolled in BTEC 4301) OR Approved Elec.
		HIST 1377 (no prerequisite)	PHIL 1305 (ENGL 1303 or equiv)	BTEC 3100 (BIOL 3301)	POLS 1336 (no prerequisite)	Social Science (see core approved list in class schedule)	BTEC 4350 (approval of chair)