## DEPARTMENT OF COMPUTER SCIENCE GRADUATION COURSE CHECKLIST BIOINFORMATICS CONCENTRATION

STUDENT NAME:	T-NUMBER:	
ADVISOR:	ACT:	SENIOR EXIT EXAM(Y/N):
DATE SUBMITTED TO DEPARTMENT:	MAJOR FIELD TEST (Y\N)	:
<b>CONCENTRATION: BIOINFORMATICS</b>		

ENGL 1010     3     UNIV 1000       ENGL 1020     3     COMP 1500       ENGL 1020     3     CS Core (35)       Humanities/Fine Arts (9)     COMP 2140       0     3     COMP 2240       0     3     COMP 2240       0     3     COMP 2240       0     3     COMP 2400       2310.2012.2013.2210, 2320, 2022, 2023, or 2220.     COMP 3040       0     3     COMP 3040       100, HIST 120, HIST 120, MISC 1010, PHIH, 1030, RELS 2010, THITR 1020, RES 2010, THITR 2000, RES 2010, SOCI 2010, URBS 2010, or     COMP 4300       HIST 2010, DOLI 1010, PSYC 2010, SOCI 2010, URBS 2010, or     COMP 4500     Imit 1010, Imit 10	Communication (9)							Hrs
ENGL 1020     3     COMP 1500       COMM 2200     3     CS Core (35)       Humanities/Fine Arts (9)     COMP 2140       Come Humanities/Fine Arts course must be selected from ENGL 210, 2310, 2022, 2023, or 2220     COMP 2440       Come Humanities/Fine Arts course must be selected from ENGL 210, 2310, 2022, 2023, or 2220     COMP 3040       Come Humanities/Fine Arts course must be selected from ENGL 210, 2310, 2022, 2023, or 2220     COMP 3040       Come Humanities/Fine Arts course must be selected from ENGL 210, 2010, THTR 1020, MEX 2010, THR 100, MEX 200, MEX 2010, THR 100, MEX 200, MEX 200, MEX 200,		Communication (9)			Orientation and General CS (4)			
COMM 2200     3     CS Core (35)       Humanities/Fine Arts (9)     3     COMP 2140       0ne Humanities/Fine Arts course must be selected from ENGL 2110, 2310,2012,2013,2210, 2320, 2022, 2023, or 2220     COMP 2240       0ne Humanities/Fine Arts course must be selected from ENGL 2110, 2310,2012,2013,2210, 2320, 2022, 2023, or 2220     COMP 2400       1     3     COMP 3040     Image: Comp 3040       1     3     COMP 3050     Image: Comp 3190       1010, HIST 1220, MISC 1010, PHIL 1030, RELS 2010, THTR 1020, RKR 2310, or any of English courses above)     COMP 3100     Image: Comp 3100       Social/Behavioral Sciences (6)     COMP 3310     Image: Comp 4300     Image: Comp 4300       Social/Behavioral Sciences (6)     COMP 4300     Image: Comp 4300     Image: Comp 4300       They must satisfy the university general education program requirements (te. ART 2300, RCOM 2010, ECOM 2020, CEOC 1010, GEOG 1020, Ims 5100, POL 1010, PSV 2010, SOCI 2010, URBS 2010, or     COMP 4300     Image: Comp 4300       History (6)     3     COMP 4500     Image: Comp 4700     Image: Comp 4700       HIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education cequirement)     Image: Comp 3110 or 3120 or 3130 or 3140 or 3150     Image: Comp 3110 or 3120 or 3130 or 3130 or 3130 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></td<>								1
Humanities/Fine Arts (9)     COMP 2140       One Humanities/Fine Arts course must be selected from ENGL 2110, 33 COMP 22400     COMP 2240       One Humanities/Fine Arts course must be selected from ENGL 2110, 330,2012,2013,2210, 3230, 2023, 0023, 0022,0023     COMP 3040       They must satisfy the university general education program requirements (i.e. ART 1010, HIST 1210, HIST 1220, MISE 1010, FHIL 1030, RELS 2010, FHIR 1020, MER 210, or any of English courses above)     COMP 3100       Social/Behavioral Sciences (6)     3     COMP 4100       They must satisfy the university general education program requirements (i.e. ARX 2010, ANTI 2300, ECON 2010, ECON 2020, GEOG 1010, GEOG 1020, HISS 1010, OLD, POLI 1010, PSIC 2010, SOCI 2010, OR BS 2010, or WISST 2000     COMP 4300       History (6)     3     COMP 4500     COMP 4500       IHIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education requirements)     COMP 4500     COMP 4700       HIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education requirements)     COMP 3110 or 3120 or 3130 or 3140 or 3150     3130 or 3140 or 3150       Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/221 (or PHYS 300/2021), CHEM 1110/1111, CHEM 1120/121, BIOL     COMP 3110 or 3120 or 3130 or 3140 or 3150       MATH Elective     4     COMP 3112/3113     MATH A								1
3     COMP 2240       One Humanities/Fine Arts course must be selected from ENGL 2110, 2310,2013,2210, 2320, 2022, or 2220     COMP 2400       3     COMP 3040     COMP 2400       3     COMP 3040     COMP 3050       They must saftsfif the university general education program requirements (i.e. ART 100, 1157 122, MES 120, MES 1010, PHL 1030, RELS 2010, THTR 1020, AREN 2310, or any of English courses above)     COMP 3310       Social/Behavioral Sciences (6)     COMP 3310     COMP 3310       They must saftsfif the university general education program requirements (i.e. AFAS 2010, AVTH 2300, ECON 2010, ECON 2010, GEOG 1010, GEOG 1020, ITSS 131, DCLI 2010, POLI 1010, PSYC 2010, SOCI 2010, URBS 2010, or WAST 2000)     COMP 4300     COMP 4300       History (6)     3     COMP 4510     COMP 4700     ItSI 2010 OR HIST 2020, May be replaced by HIST 2030 (i.e. mist saftsfif the university general education requirements)     COMP 4510     ItSI 2010 OR HIST 2020, COMP 4500				3			1	Ļ
One Humanities/Fine Arts course must be selected from ENGL 2110, 2310,2012,2013,2210, 2320, 2022, 2023, or 2220.     COMP 2400       0     3     COMP 3040     0       1     3     COMP 3050     0       100. HIST 1210, HIST 1220, MISC 1010, PHIL 1030, RELS 2010, THTR 1020, AREN 2310, or any of English courses above)     COMP 3110     0       Social/Behavioral Sciences     6     3     COMP 3560     0       100. HIST 1210, HIST 1220, MISC 1010, PHIL 1030, RELS 2010, THTR 1020, AREN 2310, or any of English courses above)     COMP 3310     0       Social/Behavioral Sciences     6     3     COMP 3400     0       17by must satisfy the university general education program requirements (i.e. ArXs 2010, ARTH 2300, ECOV 2020, GEOG 1010, GEOG 1020, or WMST 2000     COMP 4300     0       1History (6)     COMP 4500     0     0     0       HIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education requirements)     0     3     COMP 4510     0       Natural Sciences (12)     10     3     COMP 4700     0     0     0       1100-1110     4     CS and Technical Electives (21)     0     0     0     0     0<	Humanities/Fine Arts (9)		-					4
Solo 2012, 2013, 2210, 2320, 2022, 2023, or 2220.   3   COMP 3040     Image: Comparison of Compar				3	COMP 2240			4
Image: Second			n ENGL 2110,		COMP 2400			3
They must satisfy the university general education program requirements (i.e. ART 1010, INST 1220, MUSC 1010, PHIL 1030, RELS 2010, THTR 1020, AREW 3310, or any of English coarses above)     COMP 3190       Social/Behavioral Sciences (6)     COMP 3310     COMP 3100       They must satisfy the university general education program requirements (i.e. AFAS 2010, ANTH 2300, ECON 2010, ECON 2020, GEOG 1010, GEOG 1102, HPSS 1510, POLI 2010, POLI 1010, PSYC 2010, SOCI 2010, URBS 2010, or WMST 2000     COMP 4300       History (6)     3     COMP 4500     COMP 4500       Instructure equirements (i.e. AFAS 2010, ANTH 2300, ECON 2020, GEOG 1010, GEOG 1102, or WMST 2000)     COMP 4500     COMP 4500       History (6)     3     COMP 4500     COMP 4500     COMP 4700       Matural Sciences (12)     3     COMP 4700     COMP 4700     COMP 4700       HIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education requirements)     COMP 3110 or 3120 or 3130 or 3140 or 3150     COMP 3110 or 3120 or 3130 or 3140 or 3150       Mathematics (18)     COMP 4820     COMP 4820     COMP 4820     COMP 4820       MATH 1920     4     COMP 3110 or 3120 or 3130 or 3140 or 3150     COMP 3200     A       MATH 1920     4     COMP 3200     COMP 3200     A				3	COMP 3040			3
Information of the second state of				3	COMP 3050			3
3     COMP 3560       They must satisfy the university general education program requirements (i.e. ArAS 2010, ANTH 3300, ECON 2010, ECON 2020, GEOG 1010, GEOG 1020, IPSS 1510, POLI 2010, POLI 1010, PSYC 2010, SOCI 2010, URBS 2010, or WMST 2000)     COMP 4300       History (6)     COMP 4500	1010, HIST 1210, HIST 1220, MUS	SC 1010, PHIL 1030			COMP 3190			2
Image: Comparison of the university general education program requirements (i.e. AFAS 2010, ATH 2300, ECON 2010, ECON 2020, GEOG 1010, GEOG 1020, HESS 1510, POLI 2010, POLI 1010, PSYC 2010, SOCI 2010, URBS 2010, or     COMP 4300       History (6)     COMP 4510     COMP 4510       Image: Comparison of the university general education requirements)     3     COMP 4500       Image: Comparison of the university general education requirements)     3     COMP 4510       Image: Comparison of the university general education requirements)     3     COMP 4700       Image: Comparison of the university general education requirements)     4     CS and Technical Electives (21)       Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 1120/1121,	Social/Behavioral Scienc	es (6)			COMP 3310			3
They must satisfy: the university general education program requirements (i.e., AFAS 2010, ANTH 2300, ECON 2010, ECON 2020, GEOG 1010, GEOG 1020, HPSS 1510, POLJ 2010, POLJ 1010, PSYC 2010, SOCI 2010, URBS 2010, or   COMP 4300     History (6)   3   COMP 4500     History (6)   3   COMP 4510     University general education requirements)   3   COMP 4700     History (6)   3   COMP 4700     University general education requirements)   3   COMP 4700     Natural Sciences (12)   5   5     BIOL 1110/1111   4   4     Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 1120/1121.   COMP 3110 or 3120 or 3130 or 3140 or 3150     Mathematics (18)   COMP 3110   4   COMP 3110     MATH 1910   4   COMP 3112/3113   MATH 1920     MATH 1920   4   COMP 3112/3113   MATH 1920     MATH 1920   4   MATH 1920   4   MATH 1920     MATH Elective   3   COMP 3200   4   MATH Elective				3	COMP 3560			3
They must satisfy: the university general education program requirements (i.e.   AFAS 2010, ANTH 2300, ECON 2010, ECON 2020, GEOG 1010, GEOG 1020, ItESS 1510, POLJ 2010, POLJ 2010, SOCI 2010, URBS 2010, or   COMP 4300     History (6)   3   COMP 4500      History (6)   3   COMP 4510      HIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education requirements)       Natural Sciences (12)        BIOL 1110/1111   4       Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 1120/1121.   COMP 3110 or 3120 or 3130 or 3140 or 3150     Mathematics (18)   COMP 3110   4      MATH 1910   4   COMP 3110      MATH 1920   4       MATH 1920   4 <t< td=""><td></td><td></td><td></td><td>3</td><td>COMP 4100</td><td></td><td></td><td>3</td></t<>				3	COMP 4100			3
3     COMP 4510     1       HIST 2010 OR HIST 2020 may be replaced by HIST 2030 (i.e. must satisfy the university general education requirements)     COMP 4700     1       Natural Sciences (12)     Image: Comp 4700     Image: Comp 4700     1       BIOL 1110/1111     4     Image: Comp 4700     1     1       BIOL 1110/1111     4     Image: Comp 4700     1 <td< td=""><td>HPSS 1510, POLI 2010, POLI 101 WMST 2000)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	HPSS 1510, POLI 2010, POLI 101 WMST 2000)							
Image: Second	History (6)							1
Interpretation of the second								2
university general education requirements)     Image: Constraint of the selected from in the select				3	COMP 4700			3
BIOL 1110/1111   4     BIOL 4110/4111   4     Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 1120/1121.   COMP 3110 or 3120 or 3130 or 3140 or 3150     Mathematics (18)   COMP 3710   COMP 4820     MATH 1910   4   COMP 3112/3113     MATH 1920   4   COMP 3112/3113	university general education requin		30 (i.e. must so	atisfy the	_			
BIOL 4110/4111   4   4   CS and Technical Electives (21)     Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 3130 or 3140 or 3150   COMP 3110 or 3120 or 3130 or 3140 or 3150     1110/1111, or BIOL 1120/1121.   COMP 3710   COMP 3710     Mathematics (18)   COMP 4820   COMP 4820     MATH 1910   4   COMP 3112/3113     MATH 1920   4   COMP 3112/3113     MATH 1920   4   COMP 3112/3113     MATH 1920   4   COMP 3110     MATH 1920   4   COMP 3110     MATH 1920   4   COMP 3110     MATH 1920   4   COMP 3112/3113     MATH 1920   4   COMP 3110     MATH 1920   3   COMP 3112/3113				4				
4     CS and Technical Electives (21)       Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 1120/1121, BIOL 1120/1121.     COMP 3110 or 3120 or 3130 or 3140 or 3150       Mathematics (18)     COMP 3710     COMP 4820       MATH 1910     4     COMP 3112/3113       MATH 1920     4     COMP 3112/3113       STAT 3110     3     COMP 3200       MATH Elective     3     COMP 3200								_
Courses can be selected from: PHYS 2110/2111 (or PHYS 2010/2011), PHYS 2120/2121 (or PHYS 2020/2021), CHEM 1110/1111, CHEM 1120/1121, BIOL 3130 or 3140 or 3150   COMP 3110 or 3120 or 3130 or 3140 or 3150     1110/1111, or BIOL 1120/1121.   COMP 3710   COMP 3710     Mathematics (18)   COMP 4820   COMP 4820     MATH 1910   4   COMP 3112/3113     MATH 1920   4   COMP 3112/3113     STAT 3110   3   Image: selective selectiv	BIOL 4110/4111				CS and Technical Elections	(21)		
Mathematics (18)     COMP 4820     Image: Comp 4820       MATH 1910     4     COMP 3112/3113     Image: Comp 3112/3113 <t< td=""><td>2120/2121 (or PHYS 2020/2021)</td><td></td><td></td><td>2011), PHYS</td><td>COMP 3110 or 3120 or</td><td></td><td></td><td>3</td></t<>	2120/2121 (or PHYS 2020/2021)			2011), PHYS	COMP 3110 or 3120 or			3
Mathematics (18)     COMP 4820     Image: Comp 4820       MATH 1910     4     COMP 3112/3113     Image: Comp 3112/3113 <t< td=""><td></td><td></td><td></td><td></td><td>COMP 3710</td><td></td><td></td><td>3</td></t<>					COMP 3710			3
MATH 1910 4 COMP 3112/3113   MATH 1920 4   STAT 3110 3   COMP 3200 4   MATH Elective 3	Mathematics (18)							3
MATH 1920 4   STAT 3110 3   COMP 3200 4   MATH Elective 3				4				4
STAT 3110 3   COMP 3200 4   MATH Elective 3	MATH 1920							1
COMP 3200     4        MATH Elective     3								
MATH Elective 3								
								1
MATH 2500, 3130, 3710, 4500, 4724, 4750, 4900 are NOT accepted.				-			+	

Electives must be appropriately chosen so that the total of the 3000-4000 level courses must be at least 42 credits.

## TOTAL HOURS: \_\_\_\_\_

Student:	Date:	Department Head:	Date:
Advisor:	Date:	Dean:	Date:

120