MASTER SYLLABUS

Course Discipline	e Code & No: <u>CIS 288</u>	Title: Systems Ana	lysis and Design	Effective Term Fall 2008_
Division Code:	BCT	Department Code:	CISD	Org #:
Don't publish:	□College Catalog	☐Time Schedule	□Web Page	
■New course a	labus review/Assessment r	L	☐Reactivation of inactive co ☐Inactivation (Submit this p	
Change informati	on: Note all changes tha	it are being made. For	rm applies only to changes	noted.
required. Course discipl *Must submit Course title (v Course descrip		ious course.	Distribution of contact hou	clinical other) or enrollment restrictions
Level II prerequisit C++ and CPS 185 (attached) shall rem	es need to be amended to a Introductory Visual Basic . ain the same	dd CPS 161 Introductor Net. In all other respects		prerequisites CPS 171 Introductory t plan as submitted in February 2007
		☐ New resources need		
Print: <u>Clarence</u> Print: <u>Clarence</u>	Hasselbach/Neil Gudsen Faculty/Preparer Hasselbach Department Chair	Signature Signature	arene Handbad arene Handbo	Date: 4/7/2008 Date: 4/7/200
Division Revie	w by Dean			
☐ Request for	conditional approval	yaaman (Juan Marine	4/7/28
Curriculum Co Recommendation	ommittee Review	earrs/Administrators 31	gnature	
☐ Tabled	Yes No G	rriculum Committee O	nair's Signature	
	•	ce President's Signature	Valsey.	571/08 Date
Approval A	Yes No Condition	u /	V	
Date of the profit of the control of		C&A Database \$/6	C&A Log File Basi	c skills Contact fee 🖺

Office of Curriculum & Assessment

Approved by Assessment Committee 10/06

MASTER SYLLABUS

*Complete ALL sections which apply to the course, even if changes are not being made. Course title: Course: CIS 288 Systems Analysis and Design Are lectures, labs, or Contact hours per semester: Grading options: Credit hours: 3___ clinicals offered as Student Instructor If variable credit, give range: separate sections? P/NP (limited to clinical & practica) Lecture: _____ to ____ credits Yes - lectures, labs, S/U (for courses numbered below 100) Lab: or clinicals are Clinical: offered in separate Practicum: sections Other: No - lectures, labs, or clinicals are Totals: 45 <u>45</u> offered in the same section Prerequisites. Select one: No Basic Skills Prerequisite □ College-level Reading & Writing Reduced Reading/Writing Scores (Add information at Level I prerequisite) (College-level Reading and Writing is not required.) In addition to Basic Skills in Reading/Writing: Level I (enforced in Banner) Min. Score Concurrent Corequisites Test Course Grade Must be enrolled in this class Enrollment Can be taken together) a lso during the same semester) CPS 161 CPS 171 and 🛛 or CPS 185 and 🛛 or Level II (enforced by instructor on first day of class) Test Min. Score Grade ☐ and ☐ or and or Enrollment restrictions (In addition to prerequisites, if applicable.) □and □or Admission to program required □and □or Other (please specify): □and □or Consent required Program: _____ Please send syllabus for transfer evaluation to: Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as. as _____ _____ as ____ ☐ U of M as _____ _____ as _____ _____ as _____

•	s Analysis and Design Effective Term 2007 Fall CIS Org #: 13400
Don't publish: College Catalog Time Schedule	□Web Page
Reason for Submission. Check all that apply. New course approval Three-year syllabus review/ Assessment report Course change	Reactivation of inactive course Inactivation (Submit this page only.)
Change information: Note all changes that are being made. I	
□ Consultation with all departments affected by this course is required. □ Course discipline code & number (was	Total Contact Hours (total contact hours were:) Distribution of contact hours (contact hours were:) lecture: lab clinical other) Pre-requisite, co-requisite, or enrollment restrictions Change in Grading Method Outcomes/Assessment Objectives/Evaluation Other
Rationale for course or course change. Attach course assessment and re-evaluation	
Approvals Department and divisional signatures indicate that all department Review by Chairperson New resources n	partments affected by the course have been consulted. All relevant departments consulted
Print: Laurence Krieg Signature Print: Phillip Geyer Signature Department Chair	Date: 2006-11-22 Muly Say Date: 11-22-06
Division Review by Dean	and the second s
Request for conditional approval Recommendation Yes □ No Rosemary Wilson	Date Date
Curriculum Committee Review Recommendation	2/10/00
☐ Tabled ☐ Yes ☐ No Curriculum Committee	Chair's Signature Date
Vice President for Instruction Approval Vice President's Signa	M. Jaley 3/13/07
Approval ⊠ Yes □ No □ Conditional	V
202	

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to sjohn@wccnet.edu for posting on the website.

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*Complete ALL sections w	hich apply to the course, even	it changes are not being	g mage.	
Course: CIS 288	Course title: Systems Analysis and Design			
Credit hours: 3	Contact hours per semester:	Are lectures, labs, or clinicals offered as	Grading options:	
If variable credit, give range:	Student Instructor	separate sections?	P/NP (limited to clinical & practica)	
tocredits	Lecture: <u>45</u> <u>45</u>	☐Yes - lectures, labs,	S/U (for courses numbered below 100)	
	Lab:	or clinicals are offered in separate	Letter grades	
	Practicum:	sections		
	Other:	□No - lectures, labs,		
	Totals: 45 45	or clinicals are offered in the same		
		section	·	
Prerequisites, Select one:	<u></u>	<u> </u>		
•				
⊠College-level Reading & Writi		•	[No Basic Skills Prerequisite (College-level Reading and Writing is not required.)	
	(Add information at Le	vei i prerequisite)	Complement remails and remails to that reducers)	
In addition to Basic Skills in F	teading/Writing:			
Level I (enforced in Banner)				
Course	Grade Test	Min. Score Concur		
		Enrollm Gan be taken i		
and or				
Level II (enforced by instructor of	on first day of class)			
	Course	Grade Test	Min. Score	
	and the state of t		Approximation to the second se	
☐ and ☑ or <u>CPS 185</u> ☐ and ☐ or		<u> </u>		
Enrollment restrictions (In add	lition to prerequisites, if applicable.)			
□and □or Consent required	□and □or Admission	to program required	□and □or Other (please specify):	
	Program:			
Please send syllabus for tran	nsfer evaluation to:			
Conditionally approved course				
☐ E.M.U. as	•		as	
U of M as			as	
3	s		as	
		-		

Course CIS 288	Course title: Systems Analysis and Design	
Course description State the purpose and content of the course. Please limit to 500 characters.	schedules and resource requirements for software develo	of package software evaluation and acquisition, planning opment, and producing software development will be introduced and used. Several approaches to system
Course outcomes	Outcomes	Assessment
List skills and knowledge	(applicable in all sections)	Methods for determining course effectiveness
students will have after taking the course. Assessment method	Professional approach to client interaction and reporting, properly using the English language	Outside expert or other faculty member will observe a student group presenting a report to a simulated client, scoring according to outcomes-based rubric
Indicate how student achievement in each outcome will be assessed to determine student		Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes-based rubric
achievement for purposes of course improvement.	Ability to apply at least one approach to system planning and development	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes
	Ability to apply professional software to data and process modeling tasks	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes
	Achieve a professional level of system analysis and design	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes
Course Objectives	Objectives	Evaluation
Indicate the objectives that support the course	(applicable in all sections)	Methods for determining level of student performance of objectives
outcomes given above. Course Evaluations	Identify computer-based business systems and their principal components	Multiple choice tests
Indicate how instructors	Identify the principal systems development approaches, their stages, strengths and weaknesses	Multiple choice tests
will determine the degree to which each objective is met for each student.	Recognize and apply terminology used professionally in the systems analysis field	Multiple choice tests; Individual assignments and Group project
	Perform a system study of either a real or realistically simulated computer-based business system	Individual assignments and Group project
	Perform project planning using computer-based software	Individual assignments and Group project
	Describe system operation, data flow, input, control, output and communication using Unified Modeling Language (UML)	Individual assignments and Group project
	Describe and utilize principles of hardware and software evaluation and selection	Individual assignments and Group project
	Describe the principles of system conversion and implementation	Individual assignments and Group project

	ed for course, including library materials.		
Software for systems mode	eling with UML		
C. J. A. Maradala		was the state of t	
Student Materials: List examples of types			Estimated costs
Texts Supplemental reading	Text, such as Systems Analysis and Design: an active M. Marakas	approach, Second edition, by George	\$100
Supplies Uniforms Equipment Tools	USB-based portable data storage device		\$20-90
Software			
Equipment/Facilities: Ch	neck all that apply. (All classrooms have overhead		
Check level only if the speci	ified equipment is needed for all sections of a	Off-Campus Sites	
course.		Testing Center	
Permanent screen & over	erhead projector	Computer workstations/lab	
☐ Level II classroom		□ITV	
Level I equipment plus	TV/VCR	TV/VCR	
■ Level III classroom	data projector, computer, faculty workstation	Data projector/computer Other	

Assessment plan:	·			
Learning outcomes to be assessed (list from Page 3)	Assessment tool	When assessment will take place	Course section(s)/other population	Number students to be assessed
Professional approach to client interaction and reporting, properly using the English language	Outside expert or other faculty member will observe a student group presenting a report to a simulated client, scoring according to outcomesbased rubric	W inter, 2009	All sections (there is usually only one)	10-12, by groups
	2. Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes-based rubric			
Ability to apply at least one approach to system planning and development	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	W inter, 2009	All sections (there is usually only one)	10-12, by groups
Ability to apply professional software to data and process modeling tasks	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	W' inter, 2009	All sections (there is usually only one)	10-12, by groups

MASTER SYLLABUS: CIS 288, Systems Analysis and Design

Achieve a professional level of system analysis	Outside expert or other faculty member will	W inter, 2009	All sections (there is usually only one)	10-12, by groups	Principle of the Princi
and design	examine student group				
	written report(s) to				1
	simulated clients, scoring				
	according to outcomes				

Scoring and analysis of assessment:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.

Departmental rubric attached

2. Indicate the standard of success to be used for this assessment.

All groups display "Satisfactory" (score 2) or "Professional" (score 3) level of work, as outlined in the rubric

3. Indicate who will score and analyze the data (data must be blind-scored).

An outside assessor, or a member of the faculty not teaching the course during the term being assessed, familiar with the field of systems analysis.

4. Explain the process for using assessment data to improve the course.

The assessor's report will be carefully considered, and suggestions for improvement will be incorporated into assignments, tests, teaching methods, or the master syllabus, as appropriate.

	BCT	Department Code:		Org#:	13400
on't publish:	College Catalog	Time Schedule	□Web Page		
☐New course ap	abus review/Assessment re		☐Reactivation of inactiv☐Inactivation (Submit th		
hange information	on: Note all changes tha	t are being made. F	orm applies only to char	nges noted.	
required. Course discipli *Must submit Course title (w Course descrip Course objecti	ne code & number (was inactivation form for previas ition ves (minor changes) credits were:)	ious course.	☐ Total Contact Hours (t☐ Distribution of contact lecture: lab ☐ Pre-requisite, co-requisite Change in Grading Me ☐ Outcomes/Assessmen ☐ Objectives/Evaluation ☐ Other	t hours (contact hor clinical site, or enrollment r ethod at	ırs were:
	se or course change. Atta	ach course assessme	nt report for existing co	urses that are beir	ng changed.
provals Departm	ent and divisional signature	es indicate that all depa	artments affected by the co	ourse have been co	nsulted.
Print: <u>Laurence</u>	Krieg Faculty/Preparer yer Department Chair	Signature		departments consul	Date: <u>2006 -</u> Date: <u>//-22 -</u>
	h D				
Division Revie	w by Dean				
Request for	conditional approval	otemary Wilson	Dle		Date Date
Request for	on Yes No Rommittee Review Yes No Yes No Yes	otemary Wilson	Chair's Signature		12/05 Date 3/12/07 Date
☐ Request for Recommendation Curriculum Control Recommendation ☐ Tabled Vice President	on Yes No Rommittee Review Yes No Yes No Yes	otemary Wilson urriculum Committee ice President's Signatu	Chair's Signature M. Cally		13/12/07 Date 3/12/07 Date

Credit hours: 3_ Contact hours per semester: Are lectures, labs, or clinicals offered as	*Complete ALL sections v	which apply to the course, even		g made.		
If variable credit, give range: Four credits Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Institution	Course: CIS 288	Course title: Systems Analysis and Design				
If variable credit, give range: Four credits Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Institution						
If variable credit, give range: Four credits Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Soulcant Institution Institution				T =		
If variable credit, give range: Student Interactive Superate sections? PAN [finited to clinical & practical Particions Pa	Credit hours: 3	Contact hours per semester:		Grading options:		
Clinical:	If variable credit, give range:			P/NP (limited to clinical & practica)		
Clinical:	to credits			S/U (for courses numbered below 100)		
Other: Totals: 45 45 Mo lectures, labs, or clinicals are offered in the same section Prerequisites. Select one:		Clinical:		Letter grades		
Totals: 45 45 Some chinicals are offered in the same section			sections			
Prerequisites. Select one: College-level Reading & Writing						
Prerequisites. Select one: College-level Reading & Writing		Totals: $\frac{45}{100}$	offered in the same			
College-level Reading & Writing			section			
College-level Reading & Writing	Prerequisites. Select one:					
College-level Reading and Writing is not required	1					
Level I (enforced in Banner) Course	College-level Reading & Writ	0	_			
Level I (enforced in Banner) Course Grade Test Min. Score Concurrent Enrollment Can be taken rogether) Adag be conciled in this class a loo during the same semester) and or		(Add information at La	evel I prerequisite)	(College-level Reading and Writing is <u>not</u> required.)		
Level I (enforced in Banner) Course Grade Test Min. Score Concurrent Enrollment Can be taken rogether) Adag be conciled in this class a loo during the same semester) and or	In addition to Regia Skills in l	Reading / Writing:				
Course Grade Test Min. Score Concurrent Enrollment Can be taken together) And to or and or and or and or and or and or Course Grade Grade Grade Test Min. Score Must be enrolled in this class a loo during the same semester) Course Grade Test Min. Score Must be enrolled in this class a loo during the same semester) Course Grade Test Min. Score CPS.171 C. CPS.171 C. and or and or and or CPS.185 C. And or Consent restrictions (In addition to prerequisites, if applicable.) Program: Program: Program: Program: As	in addition to basic skins in i	Reading/ witting.				
Course Grade Test Min. Score Concurrent Enrollment Can be taken together) And to or and or and or and or and or and or Course Grade Grade Grade Test Min. Score Must be enrolled in this class a loo during the same semester) Course Grade Test Min. Score Must be enrolled in this class a loo during the same semester) Course Grade Test Min. Score CPS.171 C. CPS.171 C. and or and or and or CPS.185 C. And or Consent restrictions (In addition to prerequisites, if applicable.) Program: Program: Program: Program: As	Level I (enforced in Banner)					
Enrollment Can be taken together) Mast be enrolled in this class a loo during the same semester)	,	Grade Test	Min. Score Concur	rent Corequisites		
and or	Course	3		nent Must be enrolled in this class		
and or			<u>Can</u> be taken	together) a iso during the same semester)		
and or						
Level II (enforced by instructor on first day of class) Course Grade Test Min. Score CPS 171 C and or CPS 185 C Enrollment restrictions (In addition to prerequisites, if applicable.) And or Consent required Program: Please send syllabus for transfer evaluation to: Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as. E.M.U. as U of M as as as as						
Level II (enforced by instructor on first day of class) Course Course CPS 171 CPS 185 C and or CPS 185 C Enrollment restrictions (In addition to prerequisites, if applicable.) And or Consent required Program: Please send syllabus for transfer evaluation to: Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as. E.M.U. as Lewel II (enforced by instructor on first day of class) Min. Score Min. Score Min. Score And Or Other (please send) Program required And or Other (please specify): Program: As As As As As As As As As A						
Course Grade CPS 171 Grade CPS 185 C and or CPS 185 C Enrollment restrictions (In addition to prerequisites, if applicable.) □ and □ or Consent required □ and □ or Admission to program required □ and □ or Other (please specify): □ Program: □ Please send syllabus for transfer evaluation to: Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as. □ E.M.U. as □ as □ U of M as as						
Course Grade CPS 171 GL GL GL GRADE CC GRADE GRADE CC GRADE G	I 1 II (C d b	on first day of class)				
CPS 171	Level II (enforced by instructor		Grade Test	Min. Score		
□ and □ or □ and □ or Enrollment restrictions (In addition to prerequisites, if applicable.) □ and □ or Consent required □ and □ or Admission to program required □ and □ or Other (please specify): □ Program: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	CPS 171		<u>C</u>			
Enrollment restrictions (In addition to prerequisites, if applicable.) and or Consent required and or Admission to program required and or Other (please specify): Program:			<u>C</u>			
□ and □ or Consent required □ and □ or Admission to program required □ and □ or Other (please specify): Program:	and or					
□ and □ or Consent required □ and □ or Admission to program required □ and □ or Other (please specify): Program:		v				
Program:	Enrollment restrictions (In ad					
Please send syllabus for transfer evaluation to: Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as. [E.M.U. as as as	□and □or Consent required	□and □or Admission	n to program required	\square and \square or Other (please specify):		
Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as.		Program:				
Conditionally approved courses are not sent for evaluation. Insert course number and title you wish the course to transfer as.	Please send syllabus for tra	nsfer evaluation to:				
□ E.M.U. as as □ U of M as as	Conditionally approved cours	es are not sent for evaluation.				
U of M as as				_		
	☐ E.M.U. as		-	as		
asas	U of M as			as		
		as	[as		

This course surveys computer applications and technique analytical communication with system users, principles of schedules and resource requirements for software develops specifications. Software for data and process modeling we planning and development will be examined. Prerequisite	f package software evaluation and acquisition, planning opment, and producing software development rill be introduced and used. Several approaches to system
Outcomes (applicable in all sections) Professional approach to client interaction and reporting, properly using the English language	Assessment Methods for determining course effectiveness 1. Outside expert or other faculty member will observe a student group presenting a report to a simulated client, scoring according to outcomesbased rubric 2. Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes-based rubric
Ability to apply at least one approach to system planning and development Ability to apply professional software to data and process modeling tasks Achieve a professional level of system analysis and design	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes
Objectives (applicable in all sections)	Evaluation Methods for determining level of student performance of objectives
Identify computer-based business systems and their principal components Identify the principal systems development approaches, their stages, strengths and weaknesses Recognize and apply terminology used professionally in the systems analysis field	Multiple choice tests Multiple choice tests Multiple choice tests; Individual assignments and Group project
Perform a system study of either a real or realistically simulated computer-based business system Perform project planning using computer-based software	Individual assignments and Group project Individual assignments and Group project
Describe system operation, data flow, input, control, output and communication using Unified Modeling Language (UML) Describe and utilize principles of hardware and software evaluation and selection Describe the principles of system conversion and	Individual assignments and Group project Individual assignments and Group project Individual assignments and Group project
	Ability to apply at least one approach to system planning and development Ability to apply professional software to data and process modeling tasks Achieve a professional level of system analysis and design Objectives (applicable in all sections) Identify computer-based business systems and their principal components Identify the principal systems development approaches, their stages, strengths and weaknesses Recognize and apply terminology used professionally in the systems analysis field Perform a system study of either a real or realistically simulated computer-based business system Perform project planning using computer-based software Describe system operation, data flow, input, control, output and communication using Unified Modeling Language (UML) Describe and utilize principles of hardware and

	led for course, including library materials.		
Software for systems mod	eling with UML		
Student Materials:			T
List examples of types			Estimated costs
Texts	Text, such as Systems Analysis and Design: an active	approach, Second edition, by George	\$100
Supplemental reading	M. Marakas		
Supplies	USB-based portable data storage device		\$20-90
Uniforms Equipment	r		Ψ20-70
Tools			
Software			
Equipment/Facilities: Ch	neck all that apply. (All classrooms have overhead	projectors and permanent screens.)	
	ified equipment is needed for all sections of a	Off-Campus Sites	
course.		Testing Center	
Level I classroom			
Permanent screen & ove	erhead projector	⊠Computer workstations/lab	
Level II classroom		□ITV	
Level I equipment plus	TV/VCR	TV/VCR	
		Data projector/computer	
☐ Level III classroom			
Level II equipment plus	data projector, computer, faculty workstation	Other	

Assessment plan:		W/1	Course section(s)/other	Number students to be
Learning outcomes to	Assessment tool	When assessment will take place	population	assessed
be assessed		take place	population	assessed
(list from Page 3) Professional approach to client interaction and reporting, properly using the English language	1. Outside expert or other faculty member will observe a student group presenting a report to a simulated client, scoring according to outcomes-	W inter, 2009	All sections (there is usually only one)	10-12, by groups
	based rubric 2. Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes-based rubric			
Ability to apply at least one approach to system planning and development	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	W inter, 2009	All sections (there is usually only one)	10-12, by groups
Ability to apply professional software to data and process modeling tasks	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	W inter, 2009	All sections (there is usually only one)	10-12, by groups

				40.40.1
Achieve a professional	Outside expert or other	W inter, 2009	All sections (there is	10-12, by groups
level of system analysis	faculty member will		usually only one)	
and design	examine student group			
	written report(s) to			
	simulated clients, scoring			
	according to outcomes			

Scoring and analysis of assessment:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.

Departmental rubric attached

2. Indicate the standard of success to be used for this assessment.

All groups display "Satisfactory" (score 2) or "Professional" (score 3) level of work, as outlined in the rubric

3. Indicate who will score and analyze the data (data must be blind-scored).

An outside assessor, or a member of the faculty not teaching the course during the term being assessed, familiar with the field of systems analysis.

4. Explain the process for using assessment data to improve the course.

The assessor's report will be carefully considered, and suggestions for improvement will be incorporated into assignments, tests, teaching methods, or the master syllabus, as appropriate.

Assessment Rubric

Learning outcomes to be	Assessment tool	Score					
assessed (list from Page 3)		0 Not attempted	1 Poor	2 Satisfactory	3 Excellent		
Professional approach to client interaction and reporting, properly using the English language	Outside expert or other faculty member will observe a student group presenting a	Not observed or not attempted	Presentation has many unprofessional aspects and would reflect poorly on a company giving it.	Most aspects professional in quality, though there are areas that need improvement.	Fully professional presentation, and would reflect well on a company giving it.		
	report to a simulated client, scoring according to outcomes- based rubric		Consideration includes spoken English, clarity, and audibility; and quality of projection materials or handouts				
	other faculty member will examine student group written	Not observed or not attempted	Report has many unprofessional aspects and would reflect poorly on a company giving it.	Most aspects professional in quality, though there are areas that need improvement.	Fully professional presentation, and would reflect well on a company giving it.		
	report(s) to simulated clients, scoring according to outcomes- based rubric		Consideration includes written English, clarity, grammar, spelling, and format.				
Ability to apply at least one approach to system planning and development	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	Not observed or not attempted	Report reflects little or no understanding of the approach	Report generally follows the approach, but lacks certain details	Report reflects a good understanding of the approach used		
Ability to apply professional software to data and process modeling tasks	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	Not observed or not attempted	Diagrams and explanatory text are difficult to understand, poorly reflect the system, and show serious errors in conventional usage	Diagrams and explanatory text are largely correct and reflect the analyzed or proposed system, but have a few minor defects	Diagrams and explanatory text are clear, correct, and reflect the analyzed or proposed system accurately.		
Achieve a professional level of system analysis and design	Outside expert or other faculty member will examine student group written report(s) to simulated clients, scoring according to outcomes	Not observed or not attempted	Incomplete, inaccurate, or flawed analysis and design	Largely complete and accurate but with a few correctable flaws	Complete, accurate, and sound analysis and design		