

COURSE CLASSIFICATION FORM

Course Number/Name	Math 450 Computational Numerical Analysis		
Prepared by	Dr. Mohamed Ahmed Attia		
Program Learning Outcomes	Levels*	Relevant Activities	Assessment Methods/Metrics
	(0,1,2,3,4,5)		
a1. Apply fundamentals and concepts of mathematics.	5	- Lectures - Assignments.	2 Midterm and final exams Home work
a2. Apply fundamentals and concepts General sciences and Computer skills.	4	- Lectures - Assignments.	-Check the problems solution Discusses with them the results of computations analysis and problem solutions
a3. Realize Social and ethical values.			
b1. Read and construct mathematical arguments and proofs.	4	- Lectures - assignments	2 Midterm and final exams Home work
b2. Apply critical thinking skills to solve problems that can be modeled mathematically.	3	- Lectures - assignments - Oral discussion	Home work Quizzes
c1. Work independently and within a team	3	Divided students into groups and using oral discussion with homework	2 Midterm and final exams Home work
c2. Bear responsibility for different situations.	2		-Check the problems solution Discusses with them the results of computations analysis and problem solutions -Quizzes
c3. Realize codes of ethics and their importance.			
d1. Communicate a depth and breadth of mathematical knowledge, both orally and in writing.	4	- Lectures - assignments - Oral discussion	2 Midterm and final exams Home work

d2. Ability to Organize, connect and communicate mathematical and algorithmic ideas.	3	- Lectures - assignments	Home work Quizzes
d3. Critically interpret numerical and graphical data.	4	- assignments on information data and represented data	Home work Quizzes
e1. Use computer and its applications as an office tool	3	- assignments on some resulting numbers.	Home work Quizzes

* Please mark (or type) High (5), Medium-High (4), Medium (3), Low-Medium (2), Low (1) or Not At All (0) indicating the level to which you believe, as an instructor, the students have achieved these outcomes in this course.

Instructor Course Evaluation Form

The purpose of this evaluation is to collect instructor feedback for improving this course and the Mathematics program. Information will also be used for program accreditation purposes.

I. Program Learning Outcomes Evaluations

Course Number/Name	Math 450 Computational Numerical Analysis	Semester	First 1434/1435				
Instructor	Dr. Mohamed Ahmed Attia	2					
The course listed above is designed for students to achieve the following outcomes at a Not At All, Low, Low-Medium, Medium, Medium-High or High level.							
Please mark (or type) High (5), Medium-High (4), Medium (3), Low-Medium (2), Low (1) or Not At All (0) indicating the level to which you believe, as an instructor, the students have achieved these outcomes in this course.							
Program Learning Outcomes	Relevant Activities	5	4	3	2	1	0
a1. Apply fundamentals and concepts of mathematics.	- Lectures - Assignments	√					
a2. Apply fundamentals and concepts General sciences and Computer skills.	- Lectures - Assignments.		√				
a3. Realize Social and ethical values.							√
b1. Read and construct mathematical arguments and proofs.	- Lectures - assignments		√				
b2. Apply critical thinking skills to solve problems that can be modeled mathematically.	- Lectures - Assignments - Oral discussion			√			
c1. Work independently and within a team	Divided students into groups and using oral discussion with homework			√			
c2. Bear responsibility for different situations.					√		
c3. Realize codes of ethics and their importance.							√
d1. Communicate a depth and breadth of mathematical knowledge, both orally and in writing.	- Lectures - assignments - Oral discussion		√				
d2. Ability to Organize, connect and communicate mathematical and algorithmic ideas.	- Lectures - Assignments		√				
d3. Critically interpret numerical and graphical data.	- Assignments on information data and represented data			√			

Instructor Course Evaluation Form

e1. Use computer and its applications as an office tool	Assignments on some resulting numbers					√			
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II. Catalog Description , and Course Prerequisites Evaluations:

Based on your experiences in the course, please respond by circling the most appropriate number. Circle N/A for items that are not applicable, or if you have no opinion.

Catalog Description 1434-1435	<ul style="list-style-type: none"> Advanced Numerical methods with computer applications Approximation theory (polynomial approximations+ Chebyshev polynomials+ trigonometric polynomials+ rational function approximation. Least square problems. Numerical methods for solving ordinary differential equations. Direct methods for large and sparse linear and nonlinear systems. Boundary value problems. Solving partial differential equations by finite differences and finite elements methods. 	Circle One (5=Strongly Agree; 1=Strongly disagree)					
Course Prerequisites:	Math 351						
2a. Do you believe that the catalog description (above) is accurate for this course?		(5)	4	3	2	1	N/A
2b. Do you believe that the course prerequisites (above) are appropriate for this course?		5	(4)	3	2	1	N/A
2c. If not, please list any prerequisites you believe are not appropriate for this course.							

III. Textbook(s) and/or Lab Manuals (if applicable) Evaluations:

Textbook(s) and/or Lab Manuals (if applicable):	-Numerical Analysis (9 th Ed.), Richard L. Burden, J. Douglas Faires, 2011. -Numerical Methods for Engineers, S. C. Chapra & R. P. Canale, 6th Edition, McGraw-Hill Inc. UK, 2010	Circle One (5=Strongly Agree; 1=Strongly Disagree)					
3a. In general, do you believe this to be an appropriate textbook for this course?		(5)	4	3	2	1	N/A
3b. Was the organization of the textbook appropriate for this course?		5	(4)	3	2	1	N/A
3c. Was the level of the textbook appropriate for this course?		5	(4)	3	2	1	N/A

IV. Computer usage (if applicable) Evaluations:

Computer usage (if applicable):		Circle One (5=Strongly Agree; 1=Strongly Disagree)					
5a. Was the use of computer well integrated with the course?		5	4	(3)	2	1	N/A

Instructor Course Evaluation Form

5b. Was the computer lab adequately equipped with well-maintained and updated computers?	5	4	3	(2)	1	N/A
5c. Was the computer lab equipped with sufficient number of computers?	5	4	3	(2)	1	(N/A)
5d. Were the special software packages (MATLAB, SPSS, C+, FORTRAN, etc) available and accessible?	5	4	(3)	2	1	(N/A)
5e. Was adequate technical support available when needed?	5	4	3	2	1	(N/A)

Student Course Evaluation Form

The purpose of this evaluation is to collect instructor feedback for improving this course and the Mathematics program. Information will also be used for program accreditation purposes.

I. Program Learning Outcomes Evaluations

Course Number/Name	Math 450 Computational Numerical Analysis	Semester	First 1434/1435			
Instructor	Dr. Mohamed Ahmed Attia					
Student Name	-----	Student ID	-----			
The course listed above is designed for students to achieve the following outcomes at a Not At All, Low, Low- Medium, Medium, Medium-High or High level.						
Please mark (or type) High (5), Medium-High (4), Medium (3), Low-Medium (2), Low (1) or Not At All (0) indicating the level to which you believe, as an instructor, the students have achieved these outcomes in this course.						
Program Learning Outcomes	5	4	3	2	1	0
a1. Apply fundamentals and concepts of mathematics.						
a2. Apply fundamentals and concepts General sciences and Computer skills.						
a3. Realize Social and ethical values.						
b1. Read and construct mathematical arguments and proofs.						
b2. Apply critical thinking skills to solve problems that can be modeled mathematically.						
c1. Work independently and within a team						
c2. Bear responsibility for different situations.						
c3. Realize codes of ethics and their importance.						
d1. Communicate a depth and breadth of mathematical knowledge, both orally and in writing.						
d2. Ability to Organize, connect and communicate mathematical and algorithmic ideas.						
d3. Critically interpret numerical and graphical data.						
e1. Use computer and its applications as an office tool						

Instructor Course Evaluation Form

II. Catalog Description , and Course Prerequisites Evaluations:

Based on your experiences in the course, please respond by circling the most appropriate number. Circle N/A for items that are not applicable, or if you have no opinion.

Catalog Description 1434-1435	<ul style="list-style-type: none"> • Advanced Numerical methods with computer applications • Approximation theory (polynomial approximations+ Chebyshev polynomials+ trigonometric polynomials+ rational function approximation. • Least square problems. • Numerical methods for solving ordinary differential equations. • Direct methods for large and sparse linear and nonlinear systems. • Boundary value problems. • Solving partial differential equations by finite differences and finite elements methods. 					
Course Prerequisites:	Math 351	Circle One (5=Strongly Agree; 1=Strongly disagree)				
2a. Do you believe that the catalog description (above) is accurate for this course?	5	4	3	2	1	N/A
2b. Do you believe that the course prerequisites (above) are appropriate for this course?	5	4	3	2	1	N/A
2c. If not, please list any prerequisites you believe are not appropriate for this course.						

III. Textbook(s) and/or Lab Manuals (if applicable) Evaluations:

Textbook(s) and/or Lab Manuals (if applicable):	<ul style="list-style-type: none"> -Numerical Analysis (9th Ed.), Richard L. Burden, J. Douglas Faires, 2011. -Numerical Methods for Engineers, S. C. Chapra & R. P. Canale, 6th Edition, McGraw-Hill Inc. UK, 2010 					
	Circle One (5=Strongly Agree; 1=Strongly Disagree)					
3a. In general, do you believe this to be an appropriate textbook for this course?	5	4	3	2	1	N/A
3b. Was the organization of the textbook appropriate for this course?	5	4	3	2	1	N/A
3c. Was the level of the textbook appropriate for this course?	5	4	3	2	1	N/A

IV. Computer usage (if applicable) Evaluations:

Computer usage (if applicable):	Circle One (5=Strongly Agree; 1=Strongly Disagree)					
4a. Was the use of computer well integrated with the course?	5	4	3	2	1	N/A
4b. Was the computer lab adequately equipped with well-maintained and updated computers?	5	4	3	2	1	N/A
4c. Was the computer lab equipped with sufficient number of computers?	5	4	3	2	1	N/A
4d. Were the special software packages (MATLAB, SPSS, C+, FORTRAN, etc) available and accessible?	5	4	3	2	1	N/A
4e. Was adequate technical support available when needed?	5	4	3	2	1	N/A

المقر	الزلفي- ذكور	اسم المقرر	التحليل العددي الحاسوبي
الدرجة	البكالوريوس	النشاط	محاضرة
رمز المقرر	MATH 450	الشعبة	460

تسلسل	رقم الطالب	اسم الطالب	فصلي (60%)	نهائي (40%)	المجموع	التقدير
1	292100863	سعد بن عيد بن عتيق القرعوطي البلوي	0	0	0	ح
2	301101802	يزيد بن عبدالبديع بن حسن الغانم	39	29	68	د+
3	301106877	فواز بن مفلح بن صلاح المطيري	----	----	----	ع
4	301107441	أحمد بن عوض بن عابر الشمري	42	12	54	هـ
5	301107450	عبدالله بن ملحق بن عاذي السقياني	46	29	75	ج+
6	301109067	فواز بن ضحوي بن عواد الحربي	36	30	66	د+
7	301113277	هايس بن رشيد بن زنبور الشمري	33	19	52	هـ
8	302100243	عبدالعزیز بن هليل بن عويد السبيعي العنزي	38	23	61	د
9	302102448	عبدالسلام بن محسن بن مبيريك الجلادي الرشيدى	42	39	81	ب
10	312100097	علي بن سليمان بن صالح الرشيدى	46	39	85	ب+
11	321100103	منيف بن معيبد بن عبيد الرشيدى	58	40	98	أ+
12	321100456	صالح بن معيبد بن عبيد الرشيدى	57	38	95	أ+
13	321120142	محمد بن عبدالمحسن بن محمد البدر	59	36	95	أ+
14	321120323	فهد بن سعود بن محمد الفرهود	49	39	88	ب+
15	431320276	أنس بن ضويحي بن حمود الضويحي	47	31	78	ج+

اسم رئيس القسم :

التوقيع :

اسم أستاذ المقرر : محمد احمد ابراهيم عطية

التوقيع :