

MATH 145 (Problem Solving) Syllabus

Spring 2025

Instructor Information

Name: Maria Nogin Department: Mathematics Email & Telephone: <u>mnogin@csufresno.edu</u>, 559-960-9420 (cell) Office: PB 340 Student Support Hours (aka Office Hours): Mon & Tue 2-3 pm, Wed, Thur, & Fri 10-11 am, and by appointment

Course Information

Course Modality: In-person Course ID: 37000 Units: 3 Class Meeting Time & Location: MWF 1:00-1:50 pm, PB 131 Canvas: <u>fresnostate.instructure.com</u> Prerequisite: MATH 111 Course Description: A study of formulation of problems into mathematical form; analysis of methods of attack such as specialization, generalization, analogy, induction, recursion, etc. applied to a variety of non-routine problems. Topics will be handled through student presentation.

It is expected that students will spend approximately 2 hours of study time outside of class for every hour in class. Since this is a 3 unit class, you should expect to study an average of 6 hours outside of class each week.

Required Course Materials

The textbook is available on Canvas.

Course Specifics

Course goals:

Upon completion of this course, students should know/understand:

- Importance of a formal (rigorous) proof
- Principle of Mathematical Induction
- Dirichlet's Box Principle
- Divisibility properties of integer numbers; congruences
- Technique of working backwards
- Concept of invariant

- Technique of using coloring to obtain a contradiction
- Basic graph theory terminology (vertex, edge, degree of a vertex, etc.)

Student Learning Outcomes:

Upon completion of this course, students will be able to do:

- Translate word problems into mathematical equations and relations
- Recognize problems which can be solved using one of the following techniques:
 - Dirichlet's Box Principle
 - Mathematical Induction
 - Divisibility and/or Congruences
 - Case Analysis
 - Working backwards
 - Patterns
 - Invariants
 - Coloring
 - Symmetry
 - Graphs
 - Combinatorics
 - Equations

GE ePortfolio Assignment:

N/A (This class is not a GE class.)

Course Assignments:

There will be weekly **homework** due Friday night at 11:59 pm, usually on the topic(s) covered recently (roughly during the preceding week). There will be 11 written homework assignments. Each homework will consist of 3 problems and will be worth 15 points total. The lowest homework score will be dropped. Homework problems will be *new* problems, sometimes somewhat similar to the problems discussed in class and sometimes quite different. You may have to spend a few hours on each homework (remember, the main purpose of this class is to learn to solve unfamiliar, non-routine problems).

You should do homework in groups of 2-4 people. If you are having difficulty finding a group, contact your instructor. The groups do not have to be the same for all homework; you may do one homework with one person/group and another homework with another. However, in case you want to change your group, you should notify both your instructor and your group members well in advance (at least two weeks notice is recommended.) Write the names of all group members on the first page clearly. Please make sure that everyone in the group participates, understands, and agrees with all solutions. The primary goal of homework is to learn, so if someone else does a part of the homework, you don't learn anything. You need to actively participate to make sure you learn well. The whole group will receive the same grade. If you have any questions or need someone to listen to and possibly comment on your ideas, please do not hesitate to ask your instructor (this is one thing that her office hours are for!) Also, you are encouraged to work with any of your classmates even if they are not in your group. However, your

group has to write all explanations/solutions by yourself, in your own words. Any copying will be considered cheating and will not be tolerated.

Homework is to be done using Overleaf (online collaborative LaTeX editor). I will type my feedback in the file itself. I will create your Overleaf project. Please send me the list of your group members (names and Fresno State emails) as soon as you have your group. You must type all text directly in Overleaf (no copying). If you would like to have draft/test files, you may do so in the same project, but then indicate clearly which file is a draft and which is the final version to be graded. The homework will not be checked or graded before the deadline. Continue working on your homework at any time before the deadline, however, you may not make any changes after the deadline. If any edits are made after the deadline, this will be considered cheating, and your homework will not be accepted. No late submissions will be accepted unless you are sick or have another documented serious and compelling reason to delay homework (notify your group and instructor in advance if possible; provide a doctor's note or other documentation). Keep in mind that in case of a delay, you will most likely have to do the homework by yourself as your group members will have to submit their homework on time.

Important: the use of AI is NOT allowed, would be regarded as cheating, and will not be tolerated.

Exams:

There will be three tests (50 minutes long each). If for any reason you are unable to take a test at the scheduled time, please let your instructor know as soon as possible, and certainly before the test. In most cases, you will be expected to take the test before it is given in class. No late tests are given unless you have a serious and documented reason to miss class.

Attendance:

Attendance is required. Group/class discussions are an important part of the course. One "problem of the day" will be assigned for each class period (except when there is a test). Students will be randomly called to present their ideas/solutions. These presentations are part of your grade. Thus, you have to be in class on time. If you are called and you are absent, you will receive zero points for your presentation. (If you are sick or have another serious reason to miss a class, notify your instructor before the class to be missed. Up to three absences during the semester for undocumented reasons are allowed. If you are unable to notify the instructor before class or exceed three absences, please provide a doctor's note, etc.) In addition to these presentations and new material/problem discussions, important course information may be given in class. If you miss a class, you should contact one of your classmates and/or the instructor to find out what was done in class and whether important announcements were made or homework was assigned.

Grading policy:

Your grade for the course will be based on your performance on presentations, exams, homework, and participation in the problem-solving activities. The number of points awarded for these is as follows. A grade of C or better is required to pass this class.

Assignment	Weigth
Problem of the day presentations	12%
Written homework	20%
Participation in departmental problem solving activities	8%
Test 1	12%
Test 2	12%
Test 3	12%
Final Exam	24%
Total	100%

Letter Grade	Score
А	90-100%
В	80-89%
С	70-79%
D	60-69%
F	0-59%

Participation in departmental problem solving activities:

Participation is expected and counts toward your grade in the course. Below are the activities supported by the Mathematics Department. You are welcome to participate in any of these. Choose anything that interests you and fits your schedule. Please report your attendance via this Google form.

- Journal Problems. During the semester, the instructor will post a few collections of journal problems for you to try to solve. (Problems from some journals have already been posted on Canvas.) You may work on these in any of the following two ways:
 - Work individually, at your own schedule and pace. When you have a solution, write it down and show to the instructor. If your solution is correct, depending on its completeness/clarity and the difficulty of the problem, you will get at least 3 points (that is, 3% of your total grade, possibly more if the problem is difficult/long and took a lot of time) for your solution. If it is correct and complete, you are encouraged to send your solution to the journal (and your name and/or solution may get published!) You can also present your solution in class. You will get 1

additional point for sending your solution to the journal, and 1 more point for your presentation in class.

- Work in a group, day/time/location to be determined. We will start in February. You are expected to be present for the whole time period and actively participate when you attend. When the group makes any progress, we will start an overleaf file with solution(s). For each problem, we will designate one person responsible for final proofreading, finalizing, and sending the file to the journal. The submission will indicate "Fresno State Problem Solving Group" rather than the names of just one individual who was designated to send off the solution(s). You will get 1 point for attending each session (for 50 minutes). The designated person will get 1 additional point for sending the solution to the journal. Any volunteer may present the solution in class and get 1 more point for their presentation.
- Fresno Math Circle. This is a math enrichment program for students in grades 3-12. We are focusing on problem solving and deep understanding of mathematics concepts. You are invited to participate in the sessions which are held on campus on Wednesdays, 5:30-7:30 pm, on any of the following days: Feb 12, Mar 12, Apr 9 (dedicated to MFD problems), May 7. No prior experience is necessary. Topics sometimes overlap with those in this class. Space is limited. To sign up, contact your instructor. You are expected to be present for the whole session and actively participate when you attend. You will get 2 points for each session.
- Math Kangaroo Competition Practice Sessions. Three practice sessions will be held on Saturdays, Feb 8, Feb 22, Mar 8, from 10:00 am-12:00 pm for grades 9-10 and from 1:30-3:30 pm for grades 11-12. The problems range from fairly easy to very challenging for high school students (and for anyone). You are welcome to participate in the sessions. No prior experience is necessary, however, for the Feb sessions, you will need to work on the problems in advance. Space is limited. To sign up, contact your instructor. You are expected to be present for the whole session and actively participate when you attend. You will get 2 points for each session (3 if you had to prepare for it).
- Math Kangaroo Competition Solution Session. One solution session will be held on Saturday, Apr 5, from 10:00 am-12:00 pm for grades 9-10. No prior experience is necessary, however, you will need to work on the problems in advance. Space is limited. To sign up, contact your instructor. You are expected to be present for the whole session and actively participate when you attend. You will get 3 points for each session.
- Math Field Day Practice Sessions. Two sessions will be held for grades 9-12: on Tuesday, Mar 11, and on Monday, Mar 24. No prior experience or preparation are necessary. Space is limited. To sign up, contact your instructor. You are expected to be present for the whole session and actively participate when you attend. You will get 2 points for each session.
- Math Field Day. Volunteers are needed to help run this event for students 6-12. It is unlikely that you will get to solve any math problems during this event, however,

your help will be extremely useful and you may have to use your general problem-solving skills in various scenarios. The event is on Saturday, April 12, usually in the morning and early afternoon, the exact time is TBD for this year. The exact time of your assignment will be determined by you and the Math Field Day coordinator. Typically assignments are approx. 3-4 hours long. You will get 1 point for each hour of volunteering. No preparation is necessary. As many volunteers as possible are welcome. <u>Sign up to volunteer at the Math Field Day.</u> Dr. Kay Kelm (kbyler@csufresno.edu) is the Math Field Day coordinator this year.

- Central Valley Integration Bee. This is an annual competition in integration for undergraduate and high school students. The day/time to be determined and will be announced later. In the event that you get eliminated from the tournament at some point, you may (and are encouraged to) stick around and watch the rest of the competition and cheer for your peers. You will get 1 point for each hour spent at the event.
- If you earn more than 40 points participating in the above activities, you will receive extra credit (at half the usual rate).

Extra help:

It is essential not to fall behind because most classes will use the material studied previously. If you have trouble with some material, seek help in the following ways:

- If you are having any difficulties, seek help immediately don't wait until it is too late to recover from falling behind!
- Ask me, either in class or privately. Don't be shy to ask questions. If you don't understand something, chances are very high that somebody else doesn't understand that either. So your classmates will be thankful to you for asking questions in class!
- Attend office hours. These are drop-in hours when I am in my office for sure, with my door open. If my posted office hours do not work for your schedule, make appointments. My contact info is listed on the first page of this syllabus.
- Questions about homework are welcome at any time. However, after you get help from me, you should put aside all the notes you made while talking to me, and write a complete solution from scratch, in your own words. I rarely write complete sentences during my office hours, I may only help you to find an approach or an idea. You are responsible for writing a complete solution/explanation.
- Work with your classmates. Note: working on your homework together is encouraged, however, every group should write down their solutions on their own. If somebody is helping you with your homework then the same rules as for my helping you apply, i.e. you should put aside all the notes and write a complete solution from scratch, in your own words. That way you will learn the best.

If you are having any difficulties, seek help immediately - don't wait until it is too late to recover from falling behind, or failing to understand a concept!

Course Policies & Safety Issues

In class, you are expected to pay attention (taking notes is strongly encouraged) and work solely on the in-class assignments. No talking on unrelated topics, reading of outside materials, use of electronic devices (with very rare exceptions when the class works on LaTeX) is allowed. No audio or video recording in class is allowed.

If you are absent from class, it is your responsibility to check on the material covered and announcements made while you were away.

Please see the Course Assignments section above for more information on homework rules and expectations. All tests will be individual; no collaboration or communication will be allowed.

The following sections regarding COVID are subject to change given the changing circumstances on-campus and in the community. Please check the <u>COVID website</u> for the most up-to-date information.

Vaccination:

The California State University system strongly recommends the COVID-19 vaccination and booster for all students, faculty, and staff. As a reminder, you are eligible for a booster five (5) months after receiving a final dose of the Pfizer or Moderna vaccine; or two (2) months after receiving a Johnson & Johnson vaccine.

Face Coverings:

Fresno State no longer requires masks to be worn indoors, but based on updated guidance from public health experts, the University highly recommends that all students, faculty, and staff, regardless of vaccination status, wear a surgical grade or KN95 mask indoors. Faculty will continue to have the discretion to require face coverings for their in-person classes as they evaluate the health and safety needs of their individual classroom environments.

Testing:

The campus was fortunate to receive the Higher Education Emergency Relief (HEERF) Funds during the pandemic and through June 2023 but funds are no longer available. Students will still be able to obtain free kits from the Student Health and Counseling Center. Additionally, free <u>COVID-19 test</u> options are offered by the Fresno County Department of Public Health.

Please remember that the same student conduct rules that are used for in-person classroom instruction also apply to virtual/online classrooms. Students are prohibited from any unauthorized recording, dissemination, or publication of any academic presentation, including any online classroom instruction, for any commercial purpose. In addition, students may not record or use virtual/online instruction in any manner that would violate copyright law. Students are to use all online/virtual instruction exclusively for the educational purpose of the online class in which the instruction is being provided. Students may not re-record any online recordings or post any online recordings in any other format (e.g., electronic, video, social media, audio recording, web page, internet, hard paper copy, etc.) for any purpose without the explicit written permission of the

faculty member providing the instruction. Exceptions for disability-related accommodations will be addressed by Student Disability Services working in conjunction with the student and faculty member.

Dispute Resolution:

If there are questions or concerns that you have about this course that you and I are not able to resolve, please feel free to contact the Chair of the department to discuss the matter.

Chair's name: Dr. Carmen Caprau Department name: Mathematics Chair's email: ccaprau@csufresno.edu Department phone number: 559.278.2992

Intellectual Property:

All course materials, including but not limited to the syllabus, readings, quiz questions, exam questions, and assignments prepared by the instructor are the property of the instructor and University. Students are prohibited from posting course materials online (e.g., Course Hero) and from selling course materials to or being paid for providing materials to any person or commercial firm without the express written permission of the professor teaching this course. Doing so will constitute both an academic integrity violation and a copyright violation. Audio and video recordings of class lectures as well as images of chat or messages shared during course sessions are prohibited unless I give you explicit permission in advance. Students with an official letter from the Services for Students with Disabilities office may record the class if SSD has approved that service. Otherwise, recordings of lectures are included in the intellectual property notice described above. These provisions exist regardless of the modality of the course. That is they apply to in-person, hybrid, and online courses.

Student Ratings of Instruction:

In the final weeks of the semester, you will be asked to complete a short survey to provide feedback about this class. The primary goal of student ratings is to help your instructor improve the class. Feedback will also be reviewed by the department chair and the college dean. Please offer feedback honestly and thoughtfully. Your participation is appreciated. You can access your student rating surveys and get more information at Fresno State Student Ratings for Instruction (SRI)

University Policies

Students with Disabilities:

Upon identifying themselves to the instructor and the university, students with disabilities will receive reasonable accommodation for learning and evaluation. For more information, contact Services to Students with Disabilities in the University Library, Room 1202 (278-2811).

Financial Aid Satisfactory Academic Progress Standards and Appeals Process: https://studentaffairs.fresnostate.edu/financialaid/policies/sap/index.html

The following University policies can be found on the web at:

- Adding and Dropping Classes
- <u>Cheating and Plagiarism</u>
- <u>Computers</u>
- <u>Copyright Policy</u>
- Disruptive Classroom Behavior
- Honor Code
- <u>Title IX</u>

Fresno State is committed to fostering a safe, productive learning environment for all students. Title IX and CSU policy prohibit discrimination on the basis of sex, which includes sexual harassment, domestic and dating violence, sexual assault, sexual exploitation, and stalking. We understand that sexual violence can impact a student's ability to be successful in the learning environment. We encourage students who have experienced sexual misconduct to seek information on where to report from any member of our faculty or staff in order to ensure that the university can provide students with the necessary resources and supportive measures.

As an instructor, I have a mandatory reporting responsibility as a part of my role. It is my goal that you feel comfortable sharing information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep the information you share private to the extent possible. However, I am required to report any information I receive regarding sexual misconduct or information about a crime that may have occurred during your time at Fresno State.

Students can report incidents of alleged sexual misconduct to either or both of the following resources:

Office of Compliance and Civil Rights | <u>occr.fresnostate.edu</u> | 559.278.5003 Fresno State Police Department | <u>fresnostate.edu/police</u> | 559.278.8400

Students can also report other incidents of discrimination or harassment to:

Office of Compliance and Civil Rights | occr.fresnostate.edu | 559.278.5003

Students can access confidential support from two separate resources on campus:

Counseling Services | <u>studentaffairs.fresnostate.edu/health/counseling</u> | 559.278.2734 Survivor Advocacy Services | <u>fresnostate.edu/survivoradvocate</u> | 559.278.6796

Pregnancy or Related Conditions:

<u>Pregnant Students</u> or those with related conditions should contact the Title IX Coordinator in the Office of Compliance and Civil Rights for assistance. The Title IX Coordinator can coordinate specific actions to prevent sex discrimination and ensure the student's equal access to educational programs or activities.

Office of Compliance and Civil Rights | occr.fresnostate.edu | 559.278.5003

<u>Parent scholars</u> provides information on priority registration and other support for parenting students.

<u>Services for Students with Disabilities</u> can also provide assistance with <u>accommodations</u>.

If you have concerns and you are unsure who to contact, please visit the <u>Concern &</u> Action Guide.

Emergency Information:

In the event of an emergency, everyone in the campus community becomes a partner in the response. To ensure you are prepared and remain calm you must make yourself familiar with campus protocols. To contact the Fresno State Police Department call 559.278.8400 from your cell phone or 911 from a campus phone. Prior to an emergency, assess your environment for options depending on the emergency. Identify all possible exit routes, in an emergency always use the closest safest exit. Once you exit the building go to the predetermined evacuation assembly point, if that is unavailable then go to an open safe space away from the emergency. Identify where and how you can secure yourself inside if you need to shelter in place or hide from a threat. Be prepared to help guide those around you and assist individuals who may be in need. Additional information can be found at <u>www.fresnostate.edu/emergency</u>.

University Services

The following University services can be found on the web at:

- Associated Students, Inc.
- <u>Students with Disabilities</u>
- Dream Success Center
- <u>Library</u>
- Learning Center Information
- <u>Student Health and Counseling Center</u>
- Academic Success Coaching
- <u>Survivor Advocacy</u>
- Writing Center

Subject to Change Statement This syllabus and schedule are subject to change in the event of extenuating circumstances.

Tentative Course Schedule

Date	Chapter and Topic	Problem(s) of the day: solve before class	Homework due at 11:59 PM: submit via Overleaf
Fri, Jan 17	Introduction. Syllabus. Overleaf, Homework 1 template.		
Mon, Jan 20	Holiday - Martin Luther K	ing Jr. Day	
Wed, Jan 22	Co-curricular activities: Journal Problems, Math Circle, Competitions.	1.5	
Fri, Jan 24	2. Principle of mathematical induction	2.5(d)	
Mon, Jan 27	2. Principle of mathematical induction	2.16	
Wed, Jan 29	2. Principle of mathematical induction	2.25	
Fri, Jan 31	3. Dirichlet's box principle	3.10	
Mon, Feb 3	3. Dirichlet's box principle	3.24	
Wed, Feb 5	3. Dirichlet's box principle	3.34	
Fri, Feb 7	4. Number theory	4.2(a)	homework 1: any 3 problems from: 2.8, 2.12, 2.14, 2.18, 2.20, 2.22 for extra credit: 2.24 or 2.26 <u>Homework 1 template</u> (optional, may use your own)
Sat, Feb 8	Math Kangaroo Practice session, 10:00 am-12:00 pm (grades 9-10) and 1:30-3:30 pm (grades 11-12), PB 013, need to solve problems in advance		
Mon, Feb 10	4. Number theory	4.10	
Wed,	4. Number theory	4.36	
Feb 12	High School Math Circle, 5:30-7:30 pm, S 145, no preparation necessary		
Fri, Feb 14	5. Case analysis	5.3(b)	homework 2: any 3 problems from: 3.8, 3.16, 3.18, 3.22, 3.26, 3.30 for extra credit: 3.32 or 3.36

Date	Chapter and Topic	Problem(s) of the day: solve before class	Homework due at 11:59 PM: submit via Overleaf
Mon, Feb 17	Holiday - Presidents' Day	,	
Wed, Feb 19	5. Case analysis	5.14	
Fri, Feb 21	6. Finding a pattern	6.2	homework 3: any 3 problems from: 4.16, 4.27(d), 4.28, 4.30, 4.32, 4.34 for extra credit: 4.26 or 4.44
Sat, Feb 22	Math Kangaroo Practice session, 10:00 am-12:00 pm (grades 9-10) and 1:30-3:30 pm (grades 11-12), PB 013, need to solve problems in advance		
Mon, Feb 24	6. Finding a pattern	6.19(b,c)	
Wed, Feb 26	7. Working backwards	7.4	
Fri, Feb 28	Review	none	homework 4: 3 problems total: 1 or 2 problems from: 5.2(a and c), 5.3(d), 5.4(a), 5.8 1 or 2 problems from: 5.16, 5.18 for extra credit: 5.10(a) or 5.11(b)
Mon, Mar 3	Test 1 (chapters 2-5)	none	
Wed, Mar 5	7. Working backwards	7.14	
Fri, Mar 7	7. Working backwards	7.26	homework 5: any 3 problems from: 6.4, 6.8, 6.10, 6.14, 6.16, 6.20 for extra credit: 6.18
Sat, Mar 8	Math Kangaroo Practice session, 10:00 am-12:00 pm (grades 9-10) and 1:30-3:30 pm (grades 11-12), PB 013, no preparation necessary		
Mon, Mar 10	8. Invariants	8.2	
Tue, Mar 11	Math Field Day Practice session, 5:30-7:30 pm (grades 9-12), no preparation necessary		
Wed,	8. Invariants	8.14	
Mar 12	High School Math Circle, 5:30-7:30 pm, S 145, no preparation necessary		
Fri, Mar 14	8. Invariants	8.22	homework 6: any 3 problems from: 7.6, 7.8, 7.10, 7.16, 7.22, 7.28 for extra credit: 7.30 or 7.32

Date	Chapter and Topic	Problem(s) of the day: solve before class	Homework due at 11:59 PM: submit via Overleaf
Mon, Mar 17	9. Coloring	9.2	
Wed, Mar 19	9. Coloring	9.10	
Fri, Mar 21	9. Coloring	9.16	homework 7: any 3 problems from: 8.4, 8.8, 8.10(a), 8.12, 8.18, 8.32 for extra credit: 8.10(b) or 8.34
Mon,	10. Graphs	10.2	
Mar 24	Math Field Day Practice	session, 5:30-7:30 pm	(grades 9-12), no preparation necessary
Wed, Mar 26	10. Graphs	10.22	
Fri, Mar 28	Review	none	homework 8: any 3 problems from: 9.4, 9.8, 9.12, 9.20, 9.24, 9.26 for extra credit: 9.22
Mon, Mar 31	Holiday - Cezar Chavez Day		
Wed, Apr 2	Test 2 (chapters 6-9)	none	
Fri, Apr 4	10. Graphs	10.42	
Sat, Apr 5	Math Kangaroo Solutions/Awards session, 10:00 am-12:00 pm (grades 9-10), PB 103, need to solve problems in advance		
Mon, Apr 7	11. Combinatorics	11.4	
Wed, Apr 9	11. Combinatorics 11.22 High School Math Circle (dedicated to MFD problems), 5:30-7:30 pm, S 145, no preparation necessary		
Fri, Apr 11	11. Combinatorics	11.48	homework 9: any 3 problems from: 10.10, 10.12, 10.18, 10.26, 10.30, 10.40 for extra credit: 10.46 or 10.52
Sat, Apr 12	Math Field Day. Volunteers are needed, shifts vary		
Mon, Apr 14	Spring Break		

Date	Chapter and Topic	Problem(s) of the day: solve before class	Homework due at 11:59 PM: submit via Overleaf
Wed, Apr 16			
Fri, Apr 18			
Mon, Apr 21	12. Calculus	12.8	
Wed, Apr 23	12. Calculus	12.12	
Fri, Apr 25	12. Calculus	12.22	homework 10: any 3 problems from: 11.6, 11.10, 11.28, 11.30, 11.54, 11.64 for extra credit: 11.46 (at least two parts) or 11.62
Mon, Apr 28	13. Various problems / journal problems presentations	13.12, 13.16, or 13.20 (your choice)	
Wed, Apr 30	13. Various problems / journal problems presentations	13.18, 13.24, or 13.26 (your choice)	
Fri, May 2	Review	none	homework 11: any 3 problems from: 12.10, 12.14, 12.16, 12.24, 12.36, 12.38 for extra credit: 12.26 or 12.32
Mon, May 5	Test 3 (chapters 10, 11, 12)	none	
Wed, May 7	Review	none	(last day of instruction)

Finals week	Dates
Final Exam Preparation & Faculty Consultation Days:	Thu, May 8 and Fri, May 9
Dr. Nogin's Consultation Hours	To be determined
Final Examinations	Mon, May 12 through Thu, May 15
Final Exam in this course	Mon, May 12, 1:15-3:15 PM