## **MATH 125** (Intermediate Algebra) – Prerequisite Math 115

**Section** - 20024 (MW 6:50 - 9:20 PM - MS 113) - **Office Hours at MS 112:** MW 5:50 - 6:50 p.m.

#### **Spring 2019 (Los Angeles Valley College)**

**Masoud Nassimi** { Mbox # 796 ; nassimmm@lavc.edu ; V.M: (818) 947-2600 # 8184 }

Web sites: www.mnassimi.com www.lavcmath.com www.khanacademy.org

**Course Objective:** This course reviews concepts learned in Math 115 or (Math 113 & 114) and applies them to more complicated problems; also covers inequalities, setting up and solving a variety of word problems, absolute values, relations and functions, conic sections, exponential and logarithmic functions, and number series ..

**Textbooks:** 1) Intermediate Algebra - by "Masoud Nassimi" [Required]

2) Intermediate Algebra Exercises (The Big Book) by "Teresa V. Sutcliffe" [Required]

**Homework:** Selected problems from each section of <u>Sutcliffe book</u> are assigned. Students are required to work these problems thoroughly and compile them in a separate folder. Homework should be done daily to keep up with the class. Folder will be graded periodically during the exam nights.

Class/Group Work: Small teams will be formed to solve the class-work problems from <u>Nassimi's book</u>.

Every student is required to participate actively and the class-work due will be announced at the end of class. *Following the policies stated below is mandatory* 

**Quiz:** 10 minutes <u>surprise</u> quiz will be given at the end of lecture. The material on the quiz will be from materials covered by homework and/or class-work. <u>No make up Quiz under any circumstances</u>

**Exams:** There will be four (one-hour) tests & Final exam (2 hours). One test with the lowest score will be dropped.

No make up exam is allowed under any circumstances.

Grading Policy: (A: > 90%; B: 80% - 89%; C: 70% - 79%; D: 55% - 69%; & F < 55%)

| Class/Group work12 %            |  |
|---------------------------------|--|
| Quiz & Attendance10 %           |  |
| HW Folder 10 %                  |  |
| Three tests (16% each) 48 %     |  |
| Final exam (Comprehensive) 20 % |  |

Affirming that after census weeks, it is **solely the responsibility of the students** to drop themselves through the Office of Admissions. Failure to do so may result in a grade of "**F**" in the class.

**SSD (Students with disability):** If you are requiring classroom accommodations, and have not contacted SSD, do so in a timely manner. SSD is located in the Student Services Annex, Room 175 or call SSD at (818) 947-2681 or TTD (818) 947-2680 to meet with a SSD counselor. If SSD has already sent the memo to the instructor confirming accommodations required by student for this class, please meet with me to discuss the necessary arrangements.

### Homework / Class-work & Exam Policy

- Write (Print) your name (Last, First) on all documents you submit, No name, No credit
- Use the paper properly (Be neat, clear & organized. (Do not write too big or too small)
- Show all the steps involved in the solution (Required)
- Write on one side of the paper only (<u>Backside of the paper will not be graded</u>)
- Use standard paper size (8 ½ " X 11")
- Assemble all your papers and must be stapled prior to submittal. No loose papers will be collected
- class-works (if not finished in the class time) will be collected only at the beginning of next class

#### List of the items that must be purchased for this class:

| ■ Text books (Required)   | ■ 8 ½" X 11" papers (about 300) | ☐ Staple |
|---------------------------|---------------------------------|----------|
| ☐ Graph Papers (about 50) | Scientific Calculator           | ■ Ruler  |
| ☐ Index cards             |                                 |          |

#### Class Ethics & Rules:

- ✓ Each Student is required to participate in class activities and try his/her best to solve the given problem.
- ✓ Students are not allowed to play with their electronic devices during lecture & class work.
- ✓ If you miss the lecture, it is your responsibility to update yourself about the class from your fellow student(s).
- ✓ If you come late or has to leave early, please use the back door and sit/leave quietly
- ✓ Always respect your classmates and the instructor by not disturbing anyone in any form.

  If anyone mis-behaves while class is in session, the instructor will ask him/her to leave the classroom for the whole session on that day. Repetition of miss-behavior(s) will result to the formal disciplinary action mandated by LAVC regulations and guideline that allow the instructor to exclude a student from the class.
- ✓ **Cell Phones**: Please turn off or put on vibration all phones before the class starts.
- ✓ Cellular phones are not allowed to be used in Instead of calculators during the exam & quiz times
- ✓ No eating/drinking is allowed on the class-room.
- ✓ **Zero Policy on Cheating:** According to district policy, a student caught cheating on a test should be given "F" on that test, and also Student Services will be contacted to report the incident.
- ✓ The instructor may exclude students who have excessive absences without any prior notification

**Math Lab:** located in LARC 226. One of the services offered is FREE tutoring for your math class. Students raise their hands when they want to ask a tutor for assistance.

**SLO (Student Learning Outcome):** Students will be able to think analytically and read critically to solve intermediate algebra level mathematical problems

Applying all the rules mentioned above is mandatory. Failure to abide these rules may result your exclusion from the class

According to college guidelines, a student must spend a minimum of

Two hours studying Outside of class for every One hour spend in class

#### **Important Deadlines:**

Last day to add/audit the class Feb. 14, 2019

Drop the class without receiving "W" & full Refund is Feb 18, 2019 (Online only)

Drop the class with receiving "W" is May 5, 2019

At the end of semester, a letter grade will be assigned to all active students

# MATH 125 - CLASS SCHEDULE (Spring 2019)

| Date  |    | Topics   |        | simi Book     | Sutcliffe Book    |  |  |
|-------|----|--|--------|---------------|-------------------|--|--|
|       |    |  |        | Pages         | Page              |  |  |
| Feb   | 04 | Opening Remarks – Real No., Sets, Equation (1 Var.)              | 1      | 3 - 13        | 229-233 ; 341-345 |  |  |
|       | 06 | Inequalities, interval notation, absolute value                  | 1      | 14 - 32       | 234-240 ; 346-355 |  |  |
|       | 11 | Rectangular Coordinate Sys., Slope of a Line                     |        | 35 - 37       | 391-393           |  |  |
|       | 13 | Equation of Lines, Graph Linear Equation & Inequalities          | 2      | 38 - 62       | 385-390 ; 394-400 |  |  |
| гер   | 18 | Holiday - No Class - President Day                               |        |               |                   |  |  |
|       | 20 | Solving Linear Equations (Elimination)                           | 3      | 65 - 70       | 445-455           |  |  |
|       | 25 | Word Problem - Number, Geometry                                  | 4      | 93 - 118      | 478-487 ; 495-519 |  |  |
|       | 27 | Solving Linear Equations (Matrix Method)                         | 3      | 71 - 79       | 456- 468          |  |  |
|       | 04 | Exam - 1 (Covers material studied                                | d from | Feb. 6 - 27   |                   |  |  |
|       | 04 | Word Problem - Motion  | 4      | 133 - 140     | 529-542           |  |  |
|       | 06 | Solving Linear Equations (Determinant Method)                    | 3      | 80 - 90       | 467-469           |  |  |
|       | 11 | Exponents laws ; Scientific Notation, Polynomials                | 5      | 161 - 165     | 06-22             |  |  |
| March | 13 | Binomial expansion & Polynomial Division                         | 5      | 166 -190      | 23-38             |  |  |
|       | 18 | Factoring, Special Factoring                                     | 6      | 193 – 205     | 55-67             |  |  |
|       | 20 | Factoring review   | 6      | 205 -214      | 68-79             |  |  |
|       | 25 | Word Problem - Mixture, Coin, Investment                         | 4      | 119 - 132     | 520-528           |  |  |
|       |    | Exam - 2 (Covers material studied fro                            | m Ma   | rch 1st - 22  | 2nd)              |  |  |
|       | 27 | Rational Exp. – Simplification, Multiplication, Division         | 7      | 217 - 218     | 87-112            |  |  |
|       | 01 | Spring Brook   |        |               |                   |  |  |
|       | 03 | Spring Break   |        |               |                   |  |  |
|       | 80 | Rational Exp. – Add./Subt.; Complex fraction                     | 7      | 219 - 234     | 113-136           |  |  |
|       | 10 | Radicals   | 8      | 237 - 256     | 151-197           |  |  |
|       | 15 | Radical review, Word Problem - Age                               | 4      | 141 - 146     |                   |  |  |
| April | 17 | Complex Numbers  | 9      | 259 - 268     | 198-207           |  |  |
|       | 22 | Quadratic Equation   | 10     | 271 - 275     | 241-265           |  |  |
|       | 24 | Exam - 3 (Covers material studied from March 27th to April 17th) |        |               |                   |  |  |
|       | 24 | Rational & Radical Equations                                     | 10     | 278 - 304     | 266-289           |  |  |
|       | 29 | Non-linear Inequalities and Absolute Value Inequalities          | 11     | 307 - 320     | 356-371           |  |  |
|       | 01 | Functions  | 12     | 323 - 348     | 559-594           |  |  |
|       | 06 | Word Problem - Variation; Work                                   | 4      | 147 - 158     | 543-552; 595-601  |  |  |
|       | 08 | Logarithmic Functions  | 13     | 351 - 372     | 613-647           |  |  |
|       | 12 | Compaund interest, Parabalas                                     | 12     | 357-358       | 655 650 - 401 421 |  |  |
|       | 13 | Compound interest; Parabolas                                     | 13     | 276 - 277     | 655-658 ; 401-421 |  |  |
| May   | 15 | Exam - 4 (Covers material studied from                           | April  | 19th to May   | / 10th)           |  |  |
|       | 13 | Conic Section - Circle   | 10     | 375-376       | 422-425           |  |  |
|       | 20 | Conic Section - Ellipse & Hyperbola                              | 14     | 377 - 396     | 426-434           |  |  |
|       | 22 | Arithmetic & Geometric Sequences and Series                      | 15     | 399 - 410     | 659-677           |  |  |
|       | 27 | Holiday - No Class - Memorial Day                                |        |               |                   |  |  |
|       | 29 | Review   |        |               |                   |  |  |
| June  | 03 | Final Exam (Comprehensive) – 40% New material                    | covere | d after May 1 | 15 ; 60% Others   |  |  |

## MATH 125 – Assignment Sheet

## Selected Homework Problems

From: Intermediate Algebra (Big Book) by "Teresa Sutcliffe"

|      | Pages    | Problem Numbers              |
|------|----------|------------------------------|
|      | 229-233  | 1, 7, 10, 14, 17, 19         |
|      | 341-345  | 2, 10, 15, 38, 48, 60, 69    |
| - F  | 234-240  | 9, 19, 24, 28, 37, 43, 53    |
| pts) | 346-355  | 1, 8, 19, 27, 32, 37, 40     |
| (15  | 385-390  | 4, 14, 24, 28, 35, 44        |
| 1-1  | 391-393  | 47, 54, 61, 73, 85, 90       |
| Ē    | 394-400  | 3, 6, 11, 17, 23, 29, 34, 40 |
| Exam | 445- 448 | 3, 7, 12, 18, 27             |
| Oue  | 449-455  | 3, 9, 16, 20                 |
| ۵    | 478- 487 | 1, 7, 12, 17, 25, 27         |
|      | 495-501  | 3, 8, 11, 16                 |
|      | 502-519  | 1, 7, 13, 21, 29, 32         |

|                  | 456 - 468 | 5, 23, 32             |
|------------------|-----------|-----------------------|
|                  | 529-543   | 3, 7, 12, 17, 21, 27  |
|                  | 467-469   | 35, 38,39,40          |
| _                | 520-528   | 2, 5, 8, 11, 15, 18   |
| pts)             | 06-09     | 9, 19, 33, 39, 45     |
| Due Exam – 2 (20 | 10-12     | 3, 10, 15, 20, 21, 23 |
|                  | 13-17     | 1, 5, 9, 13, 17, 20   |
|                  | 18-22     | 3, 8, 11, 16, 23, 37  |
|                  | 23-29     | 4, 13, 18, 26, 35     |
|                  | 29-38     | 1, 7, 15, 21, 26, 29  |
|                  | 55-58     | 9, 26, 37, 46, 52, 59 |
|                  | 59-62     | 4, 15, 22, 39, 49     |
|                  | 63-64     | 5, 20, 25, 37, 41     |
|                  | 65-67     | 3, 9, 11, 22, 29, 39  |
|                  |           |                       |

|        | Pages   | Problem Numbers              |
|--------|---------|------------------------------|
|        | 68-70   | 3, 11, 20, 23                |
|        | 71-79   | 7, 27, 39, 46, 54, 63, 70    |
|        | 87-96   | 1, 7, 14, 17, 23, 29, 33, 47 |
|        | 97-112  | 2, 7, 13, 19, 22, 31         |
| pts)   | 113-120 | 2, 17, 23, 27, 31            |
| (20    | 121-136 | 3, 7, 13, 22, 33, 43, 49     |
| ω<br>I | 151-152 | 9, 19, 28, 33, 47, 60        |
| E      | 153-159 | 7, 17, 43, 53, 64, 75, 77    |
| Exam   | 160-163 | 3, 8, 19, 27, 31, 37         |
| Oue    | 164-173 | 5, 15, 23, 29, 45, 61, 77    |
| _      | 174-179 | 7, 11, 21, 30, 33, 39        |
|        | 179-187 | 41, 49, 58, 62, 73, 78, 87   |
|        | 188-193 | 11, 24, 31, 43, 51, 65       |
|        | 194-196 | 5, 11, 15, 18                |

|                   | 198-204 | 1, 18, 23, 31, 37, 45, 63, 67 |
|-------------------|---------|-------------------------------|
|                   | 204-207 | 69, 80, 83, 89, 96, 102, 103  |
|                   | 241-251 | 7, 20, 35, 46, 50, 85         |
|                   | 251-257 | 95, 104, 113, 123, 131        |
|                   | 258-265 | 3, 13, 16, 29, 39, 53         |
|                   | 266-280 | 1, 4, 9, 17, 24, 31, 39       |
|                   | 281-289 | 1, 4, 9, 17, 23, 31,39,47     |
| ts)               | 356-366 | 3, 15, 29, 37, 47, 55, 69     |
| 30 p              | 367-371 | 5, 18, 29, 33, 37             |
| exam – 4 (30 pts) | 559-569 | 1, 7, 19, 23, 41, 55, 72, 89  |
|                   | 570-573 | 3, 10, 17, 23, 29             |
| xar               | 583-586 | 1, 7, 15, 18                  |
|                   | 587-594 | 3, 7, 15, 18, 19, 32, 33      |
| Due               | 543-552 | 3, 6, 9, 13, 17, 20           |
|                   | 595-601 | 7, 10, 15, 21, 29             |
|                   | 613-615 | 11, 16, 25, 32, 39            |
|                   | 621-625 | 9, 23, 35, 46, 59, 67, 87, 99 |
|                   | 626-630 | 131, 139, 149, 157            |
|                   | 630-632 | 163, 175, 182                 |
|                   | 633-638 | 3, 9, 16, 23, 31, 39, 47      |
|                   | 639-647 | 3, 5, 11, 14, 18              |

| 655 -658 | 72, 75, 77, 78   |
|----------|--|
| 401-406  | 3, 8, 14, 20, 27, 44   |
| 407-416  | 1,4,7, 12, 15, 19, 24, 26,<br>39   |
| 417- 421 | 27, 35, 45, 47   |
| 421-425  | 3, 9, 14, 17, 24, 31, 34   |
| 422-425  | 3, 9, 11, 14, 17, 24, 31,34  |
| 426-430  | 1, 8, 13, 17, 25, 33, 39   |
| 431- 434 | 4, 11, 21, 29, 32  |
| 659-662  | 3, 10, 27, 31  |
| 663      | 3, 10, 17, 26  |
| 665-671  | 2, 5, 9, 13, 17  |
| 672-677  | 1, 5, 8, 11, 17  |
|          | 401-406<br>407-416<br>417- 421<br>421-425<br>422-425<br>426-430<br>431- 434<br>659-662<br>663<br>665-671 |