



**BUSINESS MATHEMATICS  
MTH 132-35  
(Fourteen-Week Course)**

**INSTRUCTOR INFORMATION**

Name:  
Email:  
Office:  
Office Phone:  
Office Hours:

**ONLINE STUDENT RESPONSIBILITY:**

- The recommended browser to use with the current version of Canvas is Mozilla Firefox or Google Chrome. Other browsers are inconsistent in their performance with Canvas. When taking tests or quizzes, use a wired connection.
- Check your VCCS email regularly and respond/keep in touch with your instructor.
- Students are responsible for addressing and overcoming any technology-related issues that are affecting their ability to participate or complete their college course work. If you are having problems meeting this requirement, please contact your instructor, your student services advisor, or the college's help desk.
- Please note that cell phones may be inadequate to manage and complete online assignments and are not recommended as students' primary device for course work.

The Student's Guide to Online Learning is available at <https://www.nr.edu/online/pdf/studentguide.pdf>.

**REGULAR AND SUBSTANTIVE INTERACTION:**

I will support your learning throughout the semester by communicating and collaborating with you on a regular basis. This communication may be in the form of participation in office hours, direct course instruction, response to questions, email messages, discussion board posts, announcements posted in Canvas, or providing content specific feedback on graded work.

**COURSE DESCRIPTION**

Description: Provides instruction, review, and drill in percentage, cash and trade discounts, markup, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.

Credits: 3

Prerequisite:	Competency in MTE 1-3 or as demonstrated through placement or unit completion or equivalent
Submissions:	For each of five (5) modules: <ul style="list-style-type: none"><li>• 30 – 40 online homework assignments using MyLab Math software</li><li>• 12 – 15 online quizzes using MyLab Math software</li><li>• 5 online unit test</li><li>• 1 final exam.</li></ul>
Assessments:	Five (5) online unit tests and one (1) comprehensive online final exam
Online Activities:	Required

## **COURSE MATERIALS**

**Required Textbook:** Business Mathematics, 14th Edition, Pearson  
MyLab Math 12-month Access Code (bundled with textbook)  
ISBN: 9780135902042

**Calculator:** Scientific calculator, **TI-30X IIS**

**Note:** NRCC assumes no liability for virus, loss of data, or damage to software or computer when a student downloads software for classes.

## COURSE INFORMATION

**Prepared By:**

**Approved By:** Dr. Sarah Tolbert-Hurysz

### INTRODUCTION

This is an online course designed specifically for students whose learning styles are best served by providing instructional opportunities beyond the traditional classroom setting.

### COURSE OUTCOMES

At the conclusion of this course a student should be able to:

- Solve application problems by interpreting the materials presented, including determining the nature and extent of the information needed, and present the answer in standard English.
- Estimate and consider answers to mathematical problems in order to determine reasonableness.
- Correctly calculate sums, differences, products and quotients of whole numbers, fractions and mixed numbers, and decimal numbers without the use of a calculator.
- Perform basic calculator operations.
- Solve equations using basic rules.
- Translate phrases into mathematical expressions.
- Evaluate formulas for given values of the variables.
- Solve a formula for any specified variable.
- Convert decimal numbers and fractions to and from percents.
- Solve word problems using the basic percentage formula.
- Calculate percent increase and percent decrease.
- Use the basic percentage formulas to calculate property taxes, assessment value and fair market value, and tax rates.
- Identify the component parts of a check, check stub and deposit slip.
- Complete the parts of a check register.
- Reconcile a bank statement with a checkbook register.
- Calculate gross earnings based on salaries, commissions and wages.
- Calculate overtime earnings for wages and salaries.
- Calculate FICA and Medicare taxes for employees and self-employed individuals.
- Calculate Federal withholding taxes using the wage bracket and percentage methods.
- Calculate State withholding taxes.
- Calculate an employer's Federal Tax Liability.
- Use the basic percentage formula to calculate trade, series (chain), quantity and cash discounts, list price and net cost.
- Calculate each series discount separately.
- Use complements to calculate net cost.
- Calculate the equivalent single discount for a series discount.
- Calculate list price given net cost and trade discount rate(s).
- Solve cash discount problems using ordinary dating, end-of-month dating, and receipt-of-goods dating methods.
- Determine the last date of a discount period.
- Use the formula for markup based on cost price to solve variations of markup problems.

- Use the formula for markup based on selling price to solve variations of markup problems.
- Calculate markdown, reduced price, and percent of markdown.
- Determine the break-even point and the amount of a profit/loss.
- Use the simple interest formula to solve loan problems.
- Use the formulas for maturity value and present value for simple interest loans.
- Use the compound interest formula to calculate the maturity value of an investment.
- Use compound interest tables to calculate interest and maturity value.
- Use tables to calculate present value and future value.
- Use future value and present value to estimate the value of a business.

## **GENERAL EDUCATION STUDENT LEARNING OUTCOMES INCLUDED IN COURSE**

General education at NRCC provides the educational foundation necessary to promote intellectual and personal development. Upon completing the associate degree, graduates will demonstrate competency in student learning outcomes in 1) civic engagement, 2) critical thinking, 3) professional readiness, 4) quantitative literacy, 5) scientific literacy, and 6) written communication.

This course includes the following general education student learning outcomes:

- Explain numerical information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
- Convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).
- Accurately solve mathematical problems.
- Make judgements and draw relevant conclusions from quantitative analysis of data and predict future trends when appropriate.
- Demonstrate appropriate workplace and classroom demeanor and behavior e.g., attendance (for online classes this means regular engagement), submissions of assignments by set deadlines and appropriate dress.

## **COURSE CONTENT**

Module 1:	Review of fundamental arithmetic skills
Module 2:	Percent and basic percent formula Property Taxes Reading material for this section is found in the e-textbook viewed from within the corresponding MyLab Math homework assignment Equations and Formulas
Module 3:	Bank Services; Payroll
Module 4:	Mathematics of Buying/ Mathematics of Selling
Module 5:	Simple and Compound Interest

## **GRADING/EVALUATION**

The final grade for MTH 132 will be determined as follows:

Description	Percent of Grade
MyLab Assignment	40%
MyLab Quizzes	13%
Video Tutorials	7%
Tests	35%
Final Exam	7%

NOTE: *Prior to the final exam, if a student has completed all tests and assignments, the lowest of their Module test scores will be dropped.*

### **FINAL EXAM Due Date: Wednesday, May 7**

Grading Scale:

Grade	Percent
A	90% – 100 %
B	80% – 89 %
C	70% – 79 %
D	60% – 69 %
F	Below 60%

The giving or receiving of any help on any graded portion of this course is considered cheating and will not be tolerated. Calculators are not to be shared during a test or exam and they are subject to inspection prior to such. Any student found cheating will receive a grade of “0” on that portion and a possible “F” for the course. This “0” will not be replaced by another exam score.

### **WITHDRAWAL POLICY**

#### **Student Initiated Withdrawal Policy**

A student may drop or withdraw from a class without academic penalty during the first 60 percent of a session. For purposes of enrollment reporting, the following procedures apply:

- a) If a student withdraws from a class prior to the termination of the add/drop period for the session, the student will be removed from the class roll and no grade will be awarded.
- b) After the add/drop period, but prior to completion of 60 percent of a session, a student who withdraws from a class will be assigned a grade of “W.”
- c) After that time, if a student withdraws from a class, a grade of “F” or “U” will be assigned. Exceptions to this policy may be made under documented mitigating circumstances if the student was passing the course at the last date of attendance. The last date of attendance for an online course will be the last date that work was submitted.

A grade of withdrawal implies that the student was making satisfactory progress in the course at the time of withdrawal, or that the withdrawal was officially made before the deadline date published in the college calendar, or that the student was administratively transferred to a different program.

Students requesting a late withdrawal due to documented mitigating circumstances should contact the Coordinator of Admissions and Records.

## **No-Show Policy**

A student must either attend face-to-face courses or demonstrate participation in online courses by the last date to drop for a refund. Course attendance requires the student's active participation in an instructional activity related to the course, such as attending a class lecture or lab, or by participating in an online class with an assignment submission, completion of a test or exam, or other substantial course activity. A student who does not meet this deadline will be reported to the Admissions and Records Office and will be withdrawn as a no-show student. No refund will be applicable, and the student will not be allowed to attend/ participate in the class or submit assignments. Failure to attend or participate in a course will adversely impact a student's financial aid award.

## **Instructor Initiated Withdrawal**

A student who adds a class or registers after the first day of class is counted absent from all class meetings missed. Each instructor is responsible for keeping a record of student attendance (face-to-face classes) or performance/participation (online classes) in each class throughout the semester.

When a student's absences equal twice the number of weekly meetings of a class (equivalent amount of time for summer session), the student may be dropped for unsatisfactory attendance in the class by the instructor.

Since attendance is not a valid measurement for online, a student may be withdrawn due to non-performance. A student should refer to his/her online course plan for the instructor's policy.

When an instructor withdraws a student for unsatisfactory attendance (face-to-face class) or non-performance (online), the last date of attendance/participation will be documented. A grade of "W" will be recorded during the first sixty percent (60%) period of a course. A student withdrawn after the sixty percent (60%) period will receive a grade of "F" or "U" except under documented mitigating circumstances when a letter of appeal has been submitted by the student. A copy of this documentation must be placed in the student's academic file.

The student will be notified of the withdrawal by the Admissions and Records Office. An appeal of reinstatement into the class may be approved only by the instructor and dean.

## **CHEATING/PLAGIARISM POLICY**

A grade of "F" will be awarded for the semester to any student caught cheating. This includes plagiarism, which is defined as "To present another's words or ideas as one's own or without attribution" (American Heritage Dictionary, 2019). Remember that plagiarism includes using words or ideas from Internet sites, as well as copying from print sources.

## **NON-DISCRIMINATION STATEMENT**

This college promotes and maintains educational opportunities without regard to race, color, national origin, religion, disability, sex, sexual orientation, gender identity, ethnicity, marital status, pregnancy, childbirth or related medical conditions including lactation, age (except when age is a bona fide occupational qualification), veteran status, or other non-merit factors. The following person has been designated to handle inquiries regarding the college's non-discrimination policies: Dr. Mark C. Rowh, Vice President for Workforce Development and External Relations and Equal Opportunity Officer, 217 Edwards Hall, 540-674-3600, ext. 4241.

Inquiries concerning Title IX (sexual harassment, sexual assault/domestic violence/dating violence, and stalking) may be directed to Dr. Deborah Kennedy (Title IX Coordinator for Students), Dean of Student Services, 268 Rooker Hall, 540-674-3600, ext. 3690, [dkennedy@nr.edu](mailto:dkennedy@nr.edu). For employees, Melissa Anderson, Interim Vice President for Finance & Administration Office, is the Title IX Coordinator for Employees, Godbey Hall Room 22, 540-674-3600, ext. 3660, [manderson@nr.edu](mailto:manderson@nr.edu).

Inquiries concerning ADA and Section 504 may be directed to Ms. Lucy Howlett, Coordinator of The Center for Disability Services, 275 Rooker Hall, V/TTY 540-674-3619, Videophone 540-585-4724.

## **DISABILITY STATEMENT**

If you are a student with a disability and in need of accommodations for this course, please contact the Center for Disability Services (CDS) for assistance. CDS is located within the Advising Center in Rooker Hall. For more information about disabilities services, see [Center for Disability Services](#).

## **ACADEMIC SUCCESS CENTER (TUTORING CENTER)**

NRCC offers free tutoring in every subject through the Academic Success Center, our one-stop campus resource for help with coursework. In addition to course-specific tutoring, the Academic Success Center houses the NRCC Writing Center, where students may work with tutors on issues specific to writing, whether for a course, a resume, a job application, or for pleasure.

Students may receive tutoring and/or writing assistance on an as-needed basis (walk-in), or via scheduled appointments. Students unable to come to campus may participate in online sessions by appointment. In addition, online tutorials for many courses are available on the website or through the Canvas portal “NRCC Tutoring Services” that students will find under “My Organizations.”

Tutoring is available during the week Monday-Friday. To schedule an appointment or meet with a tutor, visit the Academic Success Center in Godbey Hall (G131) on campus in Dublin, or the Christiansburg site (C202); students may also call (540) 674-3664 or complete an online tutor [request form](#). For more information, including hours, visit the Academic Success Center [webpage](#).

## **GENERAL HEALTH GUIDELINES AND STUDENT EXPECTATIONS**

In guarding against the transmission of infectious illnesses, it is imperative that we follow specific health-related best practices.

As a condition for attending class or otherwise using NRCC facilities, I, as a student, agree to the following conditions:

1. I will follow all CDC, state, and local guidelines pertaining to diseases and health conditions. More information can be found at the links below.
  - a. CDC Diseases and Conditions: <https://www.cdc.gov/nchs/fastats/diseases-and-conditions.htm>
  - b. Virginia Department of Health: <https://www.vdh.virginia.gov/>
  - c. New River Health District: <https://www.nrvroadtowellness.com/>

2. In the event of health threats or changes in guidelines, I understand in-person classes may be moved online, fully or partially, and I will need to be prepared to access technology and the internet with as little as 24 hours' notice.

By continuing my enrollment in class(es), **I agree to meet each of the expectations outlined above.**

New River Community College encourages all students to fully vaccinate against transmissible illnesses. Information about vaccinations can be found on the Virginia Department of Health website at [www.vdh.virginia.gov](http://www.vdh.virginia.gov).