

in Scripture. This implies compassionate behavior toward other individuals as well as respect for the dignity of all peoples, recognizing their creation in the image of God.

- Enjoy camaraderie with many individuals, form enduring friendships within the diverse campus community, and esteem the sacred nature of marriage.
- Evaluate one's interpersonal effectiveness, including the ability to work in groups while maintaining the ability to think for oneself, and strive to enlarge the scope of all personal abilities.
- Understand one's role and responsibilities as a citizen in a secular society and as a member of a religious community; and then, beyond understanding, to respond with thoughts, with emotion, and with action to the needs of one's wider community.
- Strengthen the ability to judge clearly, observe accurately, draw reasonable inferences, perceive relationships, and to show the ability to discriminate among alternatives and design creative strategies to solve problems.
- Enjoy the cultural achievements of humanity and foster participation in creative and aesthetic activity.

## GENERAL EDUCATION GOALS

To be well-informed, participating members of society, graduates must be knowledgeable in many areas. Andrews University considers the following areas to be important and designs its curriculum to help students meet the goals.

**Religion**—From a study of faith, ethics, and doctrine, students will gain an experiential understanding of God's divine plan for their lives.

**Language and Communication**—Through practice, students will develop strategies for effective oral and written English communication. A Bachelor of Arts student will learn to communicate in a foreign language at the intermediate level.

**Arts and Humanities**—As students study and experience literature, ideas, and the performing and visual arts, they will come to understand how civilization expresses itself.

**Social Science**—Students will come to understand human-behavioral theories and perspectives as manifested in social, geographic, political, and economic relationships.

**Service**—Students will apply their knowledge and skills to the benefit of others by identifying with and serving in a selected community.

**Physical/Natural Science**—Students will experience the scientific method of studying the natural universe and the current way of understanding it.

**Wellness**—Students will understand the importance of physical, mental, and emotional health and the role of wellness in a holistic approach to life.

**ment**, which should be met first, and a **reasoning requirement**, which should be fulfilled no later than the second year of college.

**The Andrews Mathematics Placement Examination (MPE)** provides information essential to planning the college career. Subject to exceptions listed below, all new students, including transfer students, must take the MPE during the first semester of residence and before taking any mathematics courses.

The MPE takes one hour, no calculators are allowed, and there is a fee which may be charged to the student's account. (See Fee Schedule on p. 60.) It is given during Orientation Week, at other convenient times throughout the year, and each spring at participating Adventist academies. Three months must normally elapse between tests. Similar tests taken elsewhere are not recognized. The MPE score is valid as a prerequisite for mathematics courses for three years after it is earned.

**The skill requirement** is met by an MPE score of at least P2, showing competence in arithmetic and high school algebra.

*At a minimum, the entering student should be proficient in addition, subtraction, multiplication and division of whole numbers, fractions, and decimals, and should be able to handle percentage problems. The student should not need a calculator to find answers to problems no more difficult than  $9 \times 6 = 54$ ,  $13 - 21 = -8$ ,  $2(3/14) = 3/7$ , or  $4/0.02 = 200$ .*

Any student with an ACT math score of 17 or below, or an SAT math 450 or below, and many higher scoring students will need to do serious study and review to achieve a score of P2 on the MPE. Students should do everything possible to improve mathematics performance before coming to campus. A thorough review of algebra the summer before enrolling in college will pay great dividends even if the student places into the skill course.

Specific suggestions for self-evaluation and review including sample questions may be found on the web site [www.math.andrews.edu](http://www.math.andrews.edu) (click on "Mathematics Placement Examination").

**The skill course, MATH091 and 092.** Students with MPE scores of E0, E1, M0, M1, P0, or P1 at the time of enrollment must enroll in MATH091 Arithmetic and Algebra Review, or engage in other study to achieve a score of P2. *Many students, including all who score E0 or M0, should plan to enroll first in MATH091 and then in MATH092 (for two successive semesters) to bring their skills up to the required level.* Completion of the MATH 091/092 Arithmetic and Algebra Review sequence fulfills the skill requirement and awards a P2 score.

The principal means of instruction in MATH 091/092 is through the use of the *Mathematics for Scientists and Engineers* by Young and Freedman, 2nd ed. (University of California). Instruction is entirely individualized and students can advance as rapidly as their capacity will allow. The faculty instructor consults with students, tracks the student progress and is available for individual assistance. Each student is assigned to a cluster of about 15 students supervised by a lab instructor, who provides one-on-one assistance during class time. At other times the student can work on any computer with a web connection, or use a computer in the Mathematics Tutoring Center and receive help from a tutor. See MATH091/092 course descriptions, p. 148.

**The reasoning course, MATH 145.** MATH 145 Reasoning with Functions is the course which most non-science students will find most appropriate for meeting the reasoning requirement. See course description on p.149. MATH 166, 167, 168, 182, and 141 also meet the reasoning requirement.

**Transfer policy.** Courses transferred to meet the reasoning requirement must be broadly equivalent, both in content and level, to those offered at Andrews to meet the requirement. Andrews students who wish to take a course elsewhere to meet the reasoning requirement must first meet the skill requirement, and must

**General Education Mathematics.** The Andrews General Education mathematics requirement consists of a **skill require-**

have the proposed course accepted by petition before enrolling in it. Courses titled Intermediate Algebra, Elementary Algebra, Basic Algebra, Pre-algebra, College Arithmetic, or Business Mathematics may prepare the student for the MPE but do not normally meet the reasoning or the skill requirement.

**Exceptions**

1. Students who at admission transfer College Algebra, College Algebra with Trigonometry, Precalculus, Precalculus Algebra, Precalculus Trigonometry, Calculus, a Cambridge "A Level" pass in Mathematics, or AP Calculus fulfill the mathematics reasoning requirement. They do not have to take the MPE and the math skill requirement is waived.
  2. Some courses other than those listed in 1. above may be accepted for the reasoning requirement, provided they are presented at admission and the skill requirement is separately fulfilled. Current criteria will be applied case-by-case. Students wishing to have a course evaluated should bring a description to
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