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Nota di contenuto	Cover -- Title page -- Copyright page -- Contents -- Contributors -- Manuscript Reviewers -- Preface -- 1: Decoding and Encoding the "DNA" of Teaching and Learning in College Classrooms -- Introduction -- Teaching and learning: definitions -- Understanding learning -- Research in learning -- Transferable and life-long learning skills and aptitudes -- Understanding teaching -- Research in teaching -- Implications for classroom design in the twenty-first century -- Architecture of an effective classroom -- Instructional features for life-long learning -- Toward an active learning classroom -- Final thoughts -- References -- Review questions -- Section 1: Quantitative and Population Genetics -- 2: Mating Systems: Inbreeding and Inbreeding Depression -- Introduction -- Inbreeding -- Genetic defects -- Inbreeding depression -- Cause of inbreeding depression -- Quantifying inbreeding -- Inbreeding coefficient -- Inbreeding coefficient formula -- Calculating inbreeding coefficients -- Genomics

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Sommario/riassunto

Animal genetics is a foundational discipline in the fields of animal science, animal breeding, and veterinary sciences. While genetics underpins the healthy development and breeding of all living organisms, this is especially true in domestic animals, specifically with respect to breeding for key traits. Molecular and Quantitative Animal Genetics is a new textbook that takes an innovative approach, looking at both quantitative and molecular breeding approaches. The bookprovides a comprehensive introduction to genetic principles and their applications in animal breeding. This text provides a useful overview for those new to the field of animal genetics and breeding, covering a diverse array of topics ranging from population and quantitative genetics to epigenetics and biotechnology. Molecular and Quantitative Animal Genetics will be an important and invaluable educational resource for undergraduate and graduate students and animal agriculture professionals. Divided into six sections pairing fundamental principles with useful applications, the book's comprehensive coverage will make it an ideal fit for students studying animal breeding and genetics at any level.