SAMPLE ANSWERS

Data Design:
Entity-Relationship Diagrams

Task A. For each statement, indicate the relationship (1:1, 1:M, M:N).

The relationship between advisors and students is 1:M. A student has only one advisor, but an advisor can have many students.

Each instructor has a parking space assigned, so the relationship is 1:1.

Students and Courses have a M:N relationship.

An office is shared by several teaching assistants. This is 1:M, because an office has several TAs, but each TA has only one office location.

Task B. Do any statements require an associative entity? Explain your answer.
Statement C requires an associative entity to join the entities, because they have a M:N relationship.

Task C. Draw an ERD showing the entities and the relationships among them. Include associative entities, if any.

1:M

Advisor

↓

◇ Assigned to ◇

↓

Student

1:1

Advisor

↓

◇ Has ◇

↓

Parking Place

M:N

Student

↓

◇ Takes ◇

↓

Course

Course Schedule

Associative Entity

1:M

Office

↓

◇ Shared by ◇

↓

Teaching Assistant