# Session 2-6 Associative Entity

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Associative Entity: Converting Relationship and Attribute to Entity

- In relational database, an ERD is eventually converted to a series of tables at the logical modeling phase

- Some relationships and attributes in ERD cannot be represented with the tables, thus need to go through *modification* first
  - Converting them into **Associative Entities**

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Associative Entity: Converting Relationship and Attribute to Entity

Associative Entity
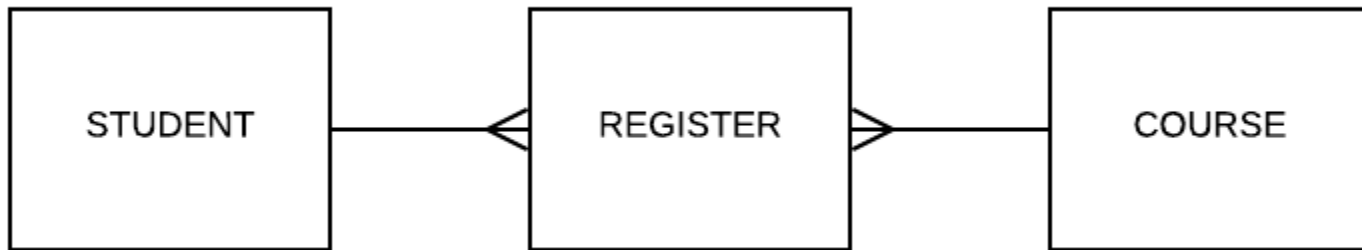
Where *date_completed* should go?

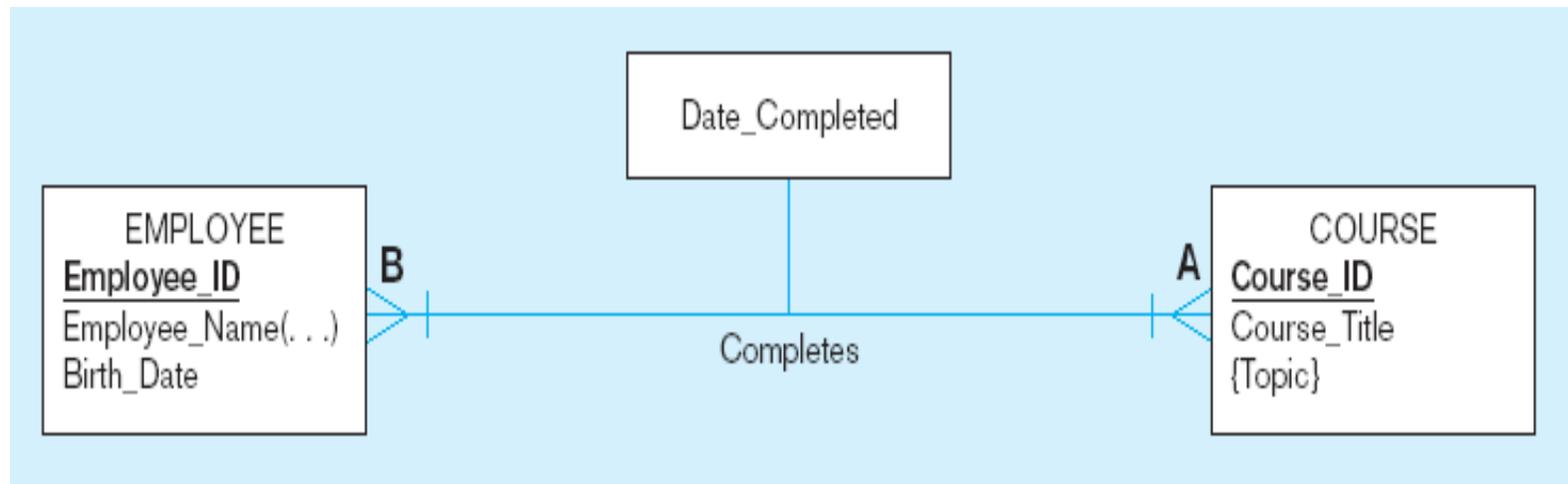- ***date_completed* attribute**: date on which an employee has completed a course

date_completed is an attribute on the relationship "Completes"
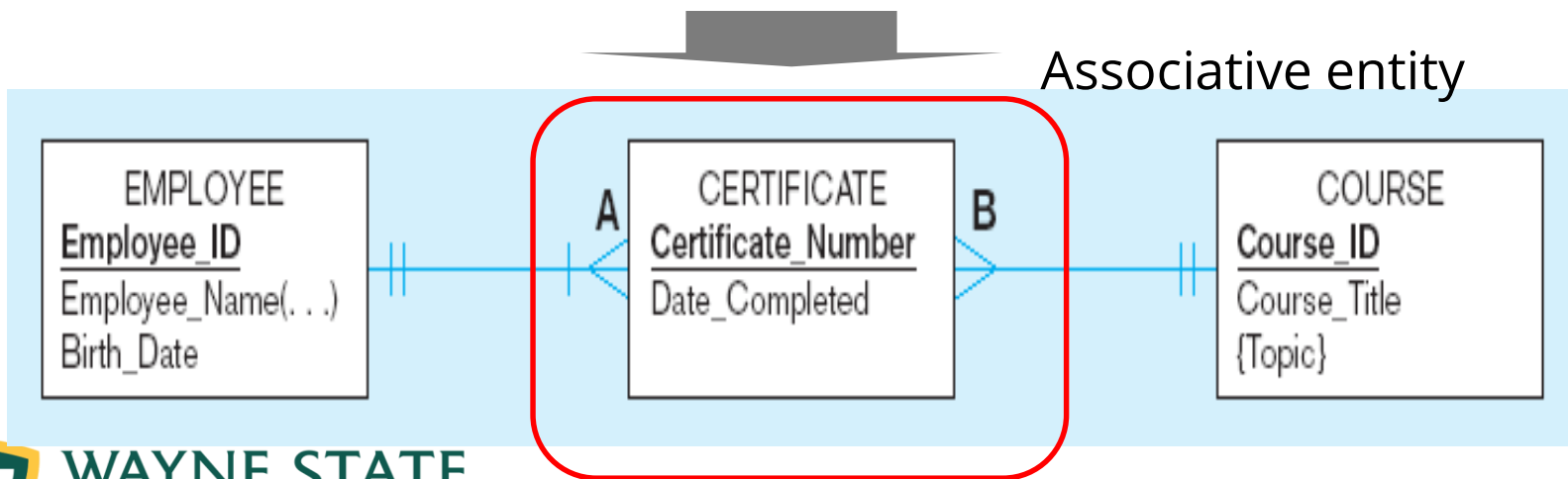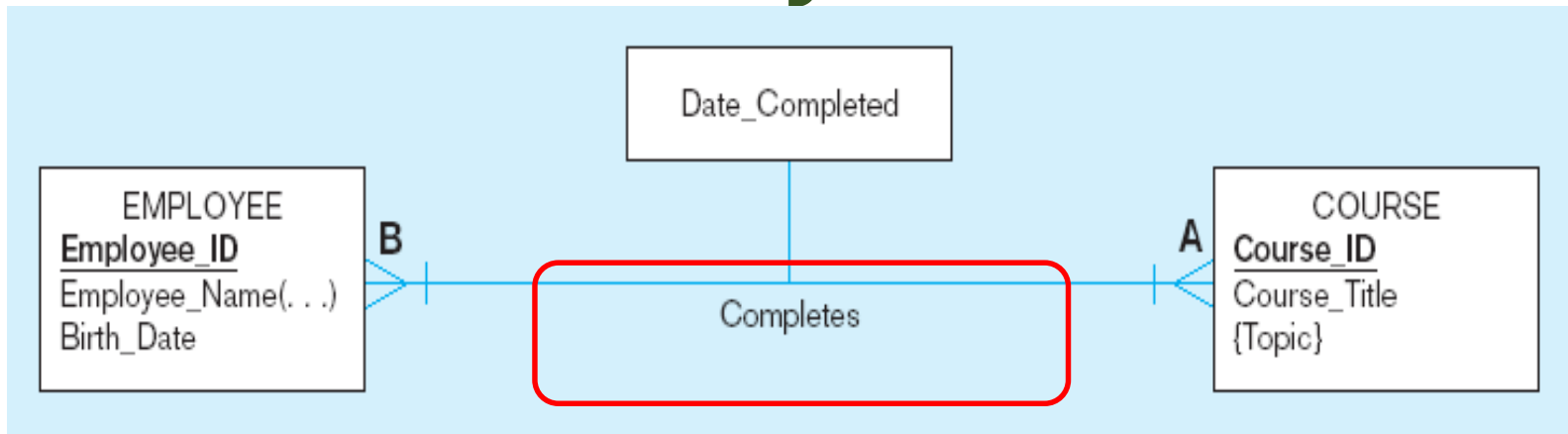
Attribute on Relationship

- These describe features pertaining to the association between the entities in the relationship
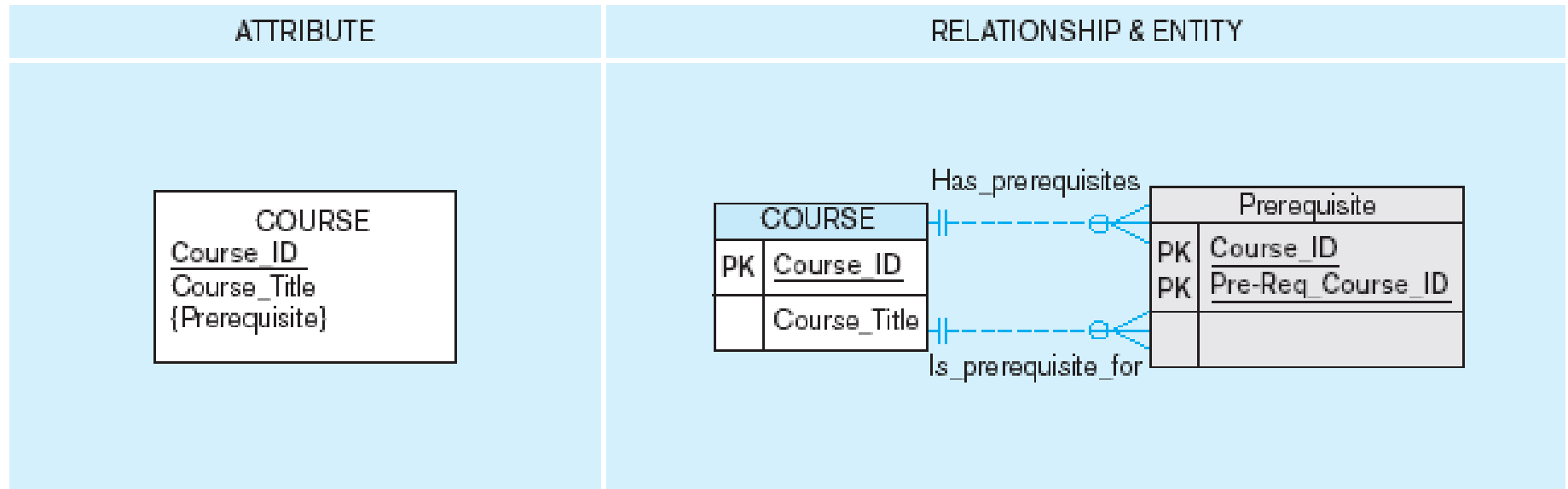
Converting Relationship to Associative Entity

Associative entity

Converting Multi-valued Attribute to Associative Entity

Converting Multi-valued Attribute to Associative Entity

EMPLOYEE
Employee_ID
Employee_Name
{Skill (Skill_Code,
Skill_Title, Skill_Type)}

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Converting High-order (Ternary) Relationship to Associative Entity
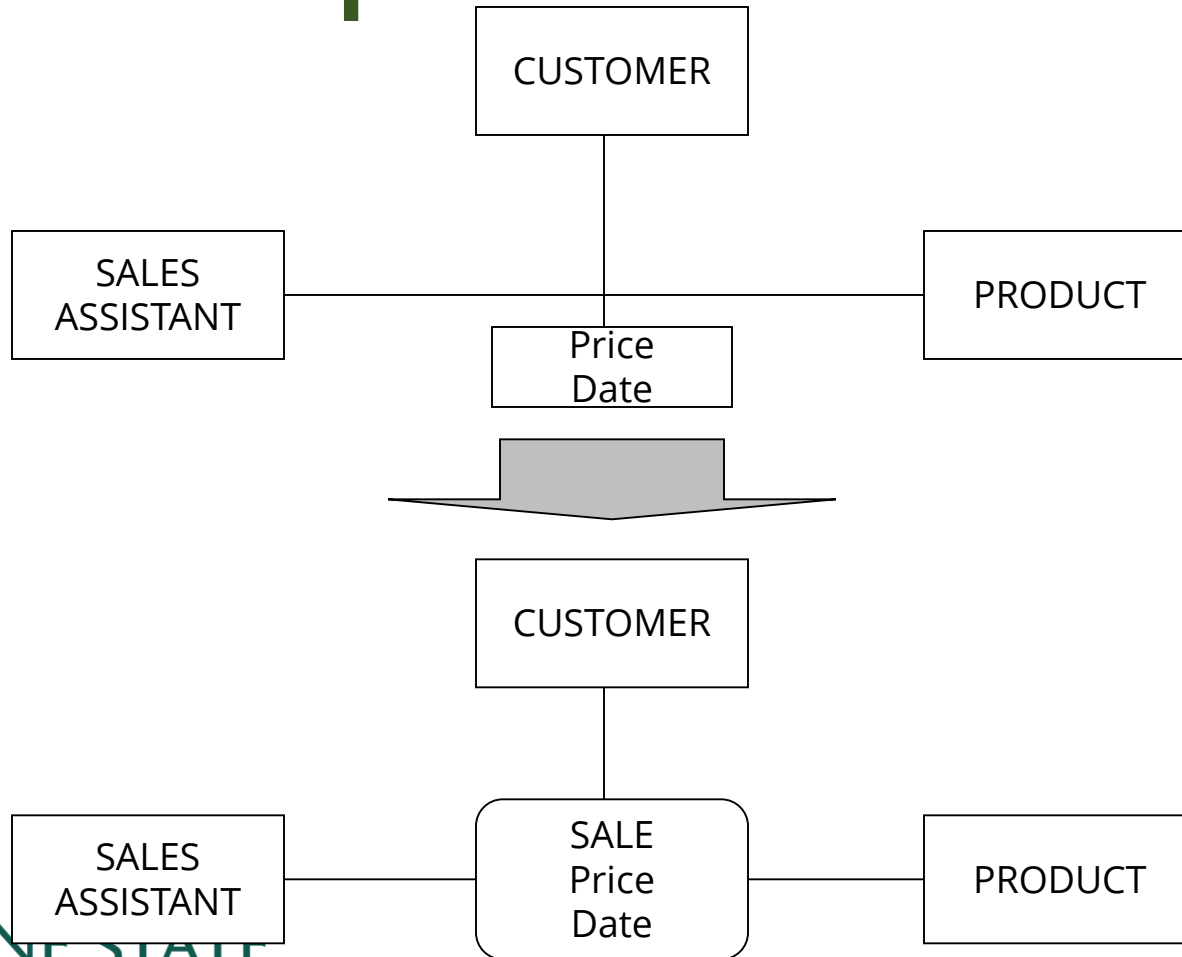
When do we need the conversion to entity?

- **Any "Many-to-many" relationships**
- The associative entity
  - could have independent meaning to end users
  - has a unique identifier and/or other attributes
  - may participate in other relationships
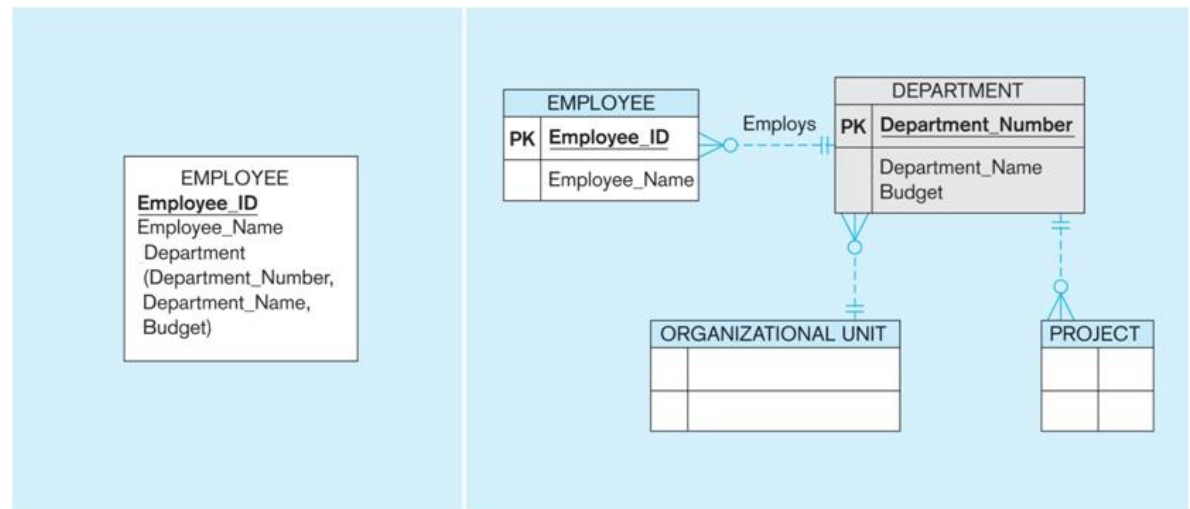
Wrap-up

- Converting attribute on relationship to entity
- Converting multi-valued attribute to entity
- Converting high-order relationship into entity

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