

-- Find the set of all courses taught either in Fall 2009 or in Spring 2010, or both.--

```
SELECT course_id, title
FROM course
WHERE course_id IN (
    SELECT course_id
    FROM section
    WHERE (sem = 1 AND year = 2009) OR (sem = 2 AND year = 2010)
);
```

-- TYB10 --

-- Find the set of all courses taught in the Fall 2009 as well as in Spring 2010.--

```
SELECT course_id, title
FROM course
WHERE course_id IN (
    SELECT course_id
    FROM section
    WHERE (sem = 1 AND year = 2009)
) AND course_id IN (
    SELECT course_id
    FROM section
    WHERE (sem = 2 AND year = 2010)
);
```

-- Find all courses taught in the Fall 2009 semester but not in the Spring 2010 semester.--

```
SELECT course_id, title
FROM course
WHERE course_id IN (
    SELECT course_id
    FROM section
```

```
WHERE (sem = 1 AND year = 2009)
) AND course_id NOT IN (
    SELECT course_id
    FROM section
    WHERE (sem = 2 AND year = 2010)
);
```

-- Find all the courses taught in the both the Fall 2009 and Spring 2010 semesters (Use set membership).

```
SELECT course_id, title
FROM course
WHERE course_id IN (
    SELECT course_id
    FROM section
    WHERE sem = 1 AND year = 2009
)
INTERSECT
SELECT course_id, title
FROM course
WHERE course_id IN (
    SELECT course_id
    FROM section
    WHERE sem = 2 AND year = 2010
);
```

-- Find all the courses taught in the Fall 2009 semester but not in the Spring 2010 semester (Use set membership).

```
SELECT course_id, title
FROM course
WHERE course_id IN (
    SELECT course_id
    FROM section
```

```
WHERE sem = 1 AND year = 2009
)
```

```
EXCEPT
```

```
SELECT course_id, title
```

```
FROM course
```

```
WHERE course_id IN (
```

```
    SELECT course_id
```

```
    FROM section
```

```
    WHERE sem = 2 AND year = 2010
```

```
);
```

-- Find the names of all instructors whose salary is greater than at least one instructor in the Biology department.

```
SELECT DISTINCT I1.name
```

```
FROM instructor I1
```

```
WHERE I1.salary > ANY (
```

```
    SELECT I2.salary
```

```
    FROM instructor I2
```

```
    WHERE I2.department_name = 'Biology'
```

```
);
```

-- Find the names of all instructors that have a salary value greater than that of each instructor in the Biology department.

```
SELECT DISTINCT I1.name
```

```
FROM instructor I1
```

```
WHERE I1.salary > ALL (
```

```
    SELECT I2.salary
```

```
    FROM instructor I2
```

```
    WHERE I2.department_name = 'Biology'
```

```
);
```