

```
select * from DEPARTMENTS d ;
```

```
select * from faculty f ;
```

```
select * from students s ;
```

```
select * from courses c ;
```

```
select * from enrollments e ;
```

--number of students enrolled for each course

```
select
```

```
    c.course_id,
```

```
    c.course_name,
```

```
    count(e.student_id) as total_enrolled
```

```
from courses c
```

```
left join enrollments e on c.course_id = e.course_id
```

```
group by c.course_id, c.course_name
```

```
order by total_enrolled desc;
```

--- how many students enrolled per semester

```
select
```

```
    semester,
```

```
    count(enrollment_id) as total_enrollments
```

```
from enrollments
```

```
group by semester
```

```
order by semester;
```

---departmentwise total enrollments

```
select
```

```
    d.department_name,
```

```
    count(e.enrollment_id) AS total_enrollments
```

```
from enrollments e
join courses c on e.course_id = c.course_id
join departments d ON c.department_id = d.department_id
group by d.department_name
order by total_enrollments desc;
```

---number of courses handled by each faculty

```
select
    f.faculty_id,
    f.name AS faculty_name,
    count(c.course_id) AS total_courses
from faculty f
left join courses c on f.faculty_id = c.faculty_id
group by f.faculty_id, f.name
order by total_courses desc limit 3;
```

---number of students with their department

```
select
    s.student_id,
    s.name,
    d.department_name
from students s
join departments d on s.department_id = d.department_id
order by s.name;
```

--faculty with their department and designation

```
select
    f.name as faculty_name,
    f.designation,
    d.department_name
from faculty f
```

```
join departments d on f.department = d.department_id  
order by d.department_name, f.designation;
```

```
--list all computer science students
```

```
select * from departments where department_name = 'CS'
```

```
-- Find courses with capacity > 50
```

```
select * from courses where max_capacity > 50;
```

```
--Show faculty with Professor designation
```

```
select * from faculty where designation = 'professor'
```

```
--Student enrollments with course names and grades
```

```
SELECT
```

```
    s.student_id,
```

```
    s.name AS student_name,
```

```
    c.course_id,
```

```
    c.course_name,
```

```
    e.semester,
```

```
    e.enrollment_date,
```

```
    e.grade
```

```
FROM ENROLLMENTS e
```

```
JOIN STUDENTS s
```

```
    ON e.student_id = s.student_id
```

```
JOIN COURSES c
```

```
    ON e.course_id = c.course_id
```

```
ORDER BY s.name, e.semester;
```

```
--All students with their enrollment count
```

SELECT

s.student_id,

s.name **AS** *student_name*,

COUNT(e.enrollment_id) **AS** *total_enrollments*

FROM STUDENTS s

LEFT JOIN ENROLLMENTS e

ON s.student_id = e.student_id

GROUP BY s.student_id, s.name

ORDER BY total_enrollments **DESC**;

--Count of students by department and gender

SELECT

c.course_id,

c.course_name,

c.max_capacity ,

COUNT(e.enrollment_id) **AS** *enrolled_students*,

ROUND((**COUNT**(e.enrollment_id) * 100.0 / c.max_capacity), 1) **AS** *occupancy_percent*

FROM COURSES c

LEFT JOIN ENROLLMENTS e

ON c.course_id = e.course_id

GROUP BY c.course_id, c.course_name, c.max_capacity

HAVING (**COUNT**(e.enrollment_id) * 100.0 / c.max_capacity) > 1

ORDER BY occupancy_percent **DESC**;