

# Week 4 4.4 Note

---

## 1. Extra R Commands

---

- Histogram:
  - `freq = F`: produce a density table rather than frequency table
    - ex.

```
hist(iris$Petal.Length, freq=F)
```

- Normal Curves:
  - `curve()`: produce a curve (normal curve)
  - Add a curve onto a histogram: `curve(add = TRUE)`
    - ex.

```
hist(iris$Petal.Length, freq=F)
  curve(dnorm(x, mean = mean(iris$Petal.Length), sd =
sd(iris$Petal.Length)), col = "lightblue", lwd = 6, add = TRUE)
```

- `dnorm()`: create a standard normal curve (mean=0, sd=1)
- `pnorm()`: Finding area under normal curve (probabilities) given a **x** - given N (mean, SD^2)
- `qnorm()`: Find x given an **area** - given N (mean, SD^2)