

# Why and when using HTTPS?

**HTTPS = HTTP + TLS**

➔ TLS provides

- confidentiality: end-to-end secure channel
- integrity: authentication handshake

➔ HTTPS protects any data send back and forth including:

- login and password
- session ID

✓ **HTTPS everywhere**

HTTPS must be used during the entire session

# Be careful of mixed content

**Mixed-content** happens when:

1. an HTTPS page contains elements (ajax, js, image, video, css ...) served with HTTP
  2. an HTTPS page transfers control to another HTTP page within the same domain
- ⦿ authentication cookie will be sent over HTTP
  - ✓ browsers provide a mix-content protection now