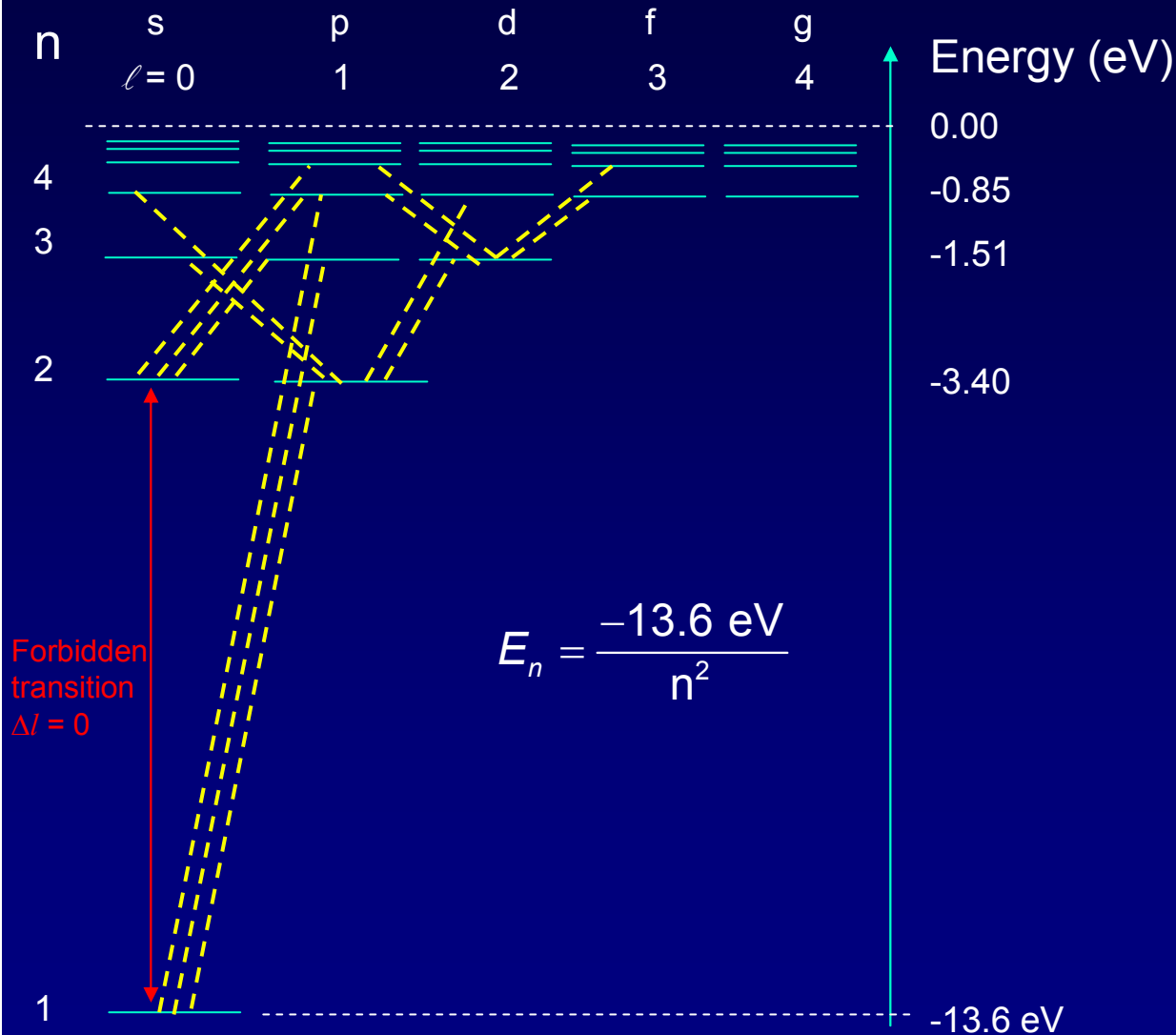


# Allowed Transitions for H

(You will observe some of these transitions in Lab 4.)



**Selection Rule** for “electric-dipole” (photon has  $l = 1$ ) transitions:

$$\Delta l = \pm 1$$
$$\Delta m = 0, \pm 1$$

NOTE:

It is possible (but unlikely) for the photon to have  $l \neq 1$  or for more than one photon to be involved. This permits other  $\Delta l$  and  $\Delta m$ .