The following are some suggestions as to topics to spend time studying. This list or any list like it cannot be expected to cover each and every topic possible for the upcoming exam. However, it should give you a reasonable idea as to the breadth of material. My suggestion is to use this list as a way to help you organize your notes and your reading. "***" indicates material not covered in lecture that you need to read independently in your text.

**Topic 4**
- stereotypical roles for males and females
- sex differentiation
- sex determination
- various levels of examining sex
- levels of sex determination
- ultimate and proximate causes of sex differences
- gonadal development of the human embryo
- Mullerian and Wolffian duct development
- hermaphroditism
- free-martinization
- the scalar approach to masculinization/demasculinization and feminization/defeminization
- human sexual differentiation
- the aromatase enzyme
- aromatase related to rat behaviors
- how female copulatory behavior develops in birds
- how territoriality in lizards is affected by factors in the organizational and activational effects of hormones
- aggression in geckos
- LH secretion patterns in mammals
- affects of intrauterine position on hormonal aspects of development
- the experimental protocol that examines the time of effect of gonadal steroids
- the play behavior studies
- the pathways for ovulation

**Topic 6**
- specifics of male reproductive behavior
- territoriality
- appetitive vs consumatory behaviors
- activational effects of testosterone on species sexual motivation and drive
- identification of various behavioral components to the sexual behavior of males
- copulatory pattern examples
- the role of various neurotransmitters on male reproductive behavior
- testosterone replacement in castrates
- brain regions associated with male reproductive behavior
- the vomeronasal organ... its use, its design, and examples of species with this organ
- brain pathways related to the VMO and how they inter-relate with pathways associated with male sexual behavior

**Readings**