## Learning Outcomes

The student should be able to:

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Assessment Criteria</th>
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</thead>
<tbody>
<tr>
<td>1 Demonstrate an understanding of the male and female reproductive systems</td>
<td>1.1 Explain the relationship between structure and function of the male and female reproductive systems</td>
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<td>1.2 Explain the role of hormonal control in the human reproductive cycle</td>
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<tr>
<td>2 Describe different methods of contraception</td>
<td>2.1 Critically evaluate the advantages/disadvantages of different methods of contraception</td>
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<tr>
<td>3 Demonstrate an understanding of genetic disorders and genetic screening</td>
<td>3.1 Describe the cause of a range of common genetic conditions</td>
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<td>3.2 Explain different methods of genetic counselling</td>
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</tbody>
</table>

## Assessment Methodology

Assignment part or wholly undertaken under controlled conditions or a 1000 – 1500 word report.

## Grading of this unit

The following grade descriptors will be applied to the assessment of this unit:

1 Understanding of the subject
2 Application of Knowledge
3 Application of Skills
4 Communication and Presentation
5 Quality

Please refer to the QAA Grade Descriptors for detail of the components of each descriptor.
### Indicative Content

#### The Male Reproductive System
Anatomy and function of: penis; scrotum; testes; seminiferous tubules; Leydig cells; epididymis; vas deferens; ejaculatory duct; urethra; seminal vesicles; prostate gland; bulbourethral glands; Spermatogenesis: stages in production of spermatozoa; importance of mitosis and meiosis. Hormone regulation: hypothalamus; anterior pituitary, GnRH, FSH; LH; Leydig cells, androgens (testosterone).

#### The Female Reproductive System
Anatomy and function of: ovaries; follicle; corpus luteum; oviduct; endometrium; cervix; vagina. Oogenesis: stages in the production of ova; importance of mitosis and meiosis. Hormone regulation of the menstrual flow, proliferative and secretory phases of menstrual cycle: LH; FSH; oestrogen; progesterone. Post fertilisation changes: parturition; lactation; hormone control, (HCG, oestrogen, oxytocin, prostaglandins). Placenta structure and function.

#### Methods of Contraception
Surgical, mechanical and hormonal.

#### Genetic Disorders and Genetic Screening.
Inheritance: patterns of autosomal and sex linked conditions (e.g. Cystic fibrosis, Tay-Sachs Disease, Huntington’s disease, haemophilia). Non-disjunction at meiosis (e.g. Down’s syndrome, Turner’s syndrome, Klinefelter’s syndrome). Pre-natal screening: amniocentesis and chorionic villus sampling; marker enzyme e.g. Tay-Sachs disease; karyotyping e.g. Down’s syndrome; carrier recognition by family pedigree analysis or diagnostic testing e.g. cystic fibrosis. Genetic counselling: family pedigrees

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**Validation end date: 31 August 2019**