**St. Francis Xavier University: Department of Human Kinetics**

**HKIN 425: Child Growth and Development**

**Fall 2016**

**Instructor:** Dr. Angie Kolen

**Office:**  Oland Center A 207

**Phone:** 902-867-3540

**E-Mail:** akolen@stfx.ca

Materials relevant to HKIN 425 including course outline, class assignments, PowerPoint slides, suggested readings, etc. will be distributed to students weekly via StFX email.

**Office Hours:** **Any time I am in my office and my door is open!**

Monday 3:00 to 5:00 p.m.

Tuesday 9:30 to 11:30 a.m.

Wednesday 11:30 to 1:30 p.m.

Thursday 5:00 to 7:00 p.m.

Friday 2:30 to 4:30 p.m.

**COURSE DESCRIPTION:** This course covers the physical growth, maturation, and development in children and adolescents. The implications of changes in structure and function as they relate to physical education, physical activity, and physical fitness will be discussed.

Prerequisites BIOL 251/252, HKIN 365

Three credits and laboratory.

Service learning option.

**COURSE OBJECTIVES:** Upon completion of the course, students will be able to…

1. describe the physical growth, maturation, and development of children

2. identify appropriate and applicable research designs that examine issues related to the physical growth, maturation, and development of children

3. clarify the factors that positively and negatively influence the physical growth, maturation, and development of children

4. apply what they have learned regarding the physical growth, maturation, and development of children to physical education, physical activity, exercise, training, and sport

**DAILY EXPERTS ☺ :** In most classes several students will be designated as “daily experts”. These individuals will be given the first opportunity to respond to questions and/or participate in activities. This opportunity to be a daily expert is intended to enhance class discussions and student participation. It is NOT intended as a means of embarrassing students. If this opportunity is one you would prefer to not be involved, please let me know via email ASAP.

Please know that choosing to not be a ‘daily expert’ does not imply that you should not participate in class discussions and group activities. Each student’s comments and contributions are welcome.

**EVALUATION:**

Midterm Exam (Thursday, October 6) 15%

Service Learning Reflection (electronically submitted no later than 11:59 p.m. Dec 2) 20%

Proposed lab dates (you are only expected to attend one time (i.e. Tuesday, Wednesday or Thursday) for each lab session; please let me know ASAP if you are NOT available on these dates so an alternative lab assignment can be created):

Lab 1 (October 4, 5 or 6\*): Anthropometry, lab report due Oct 17, 9:15 a.m.\*\* 10%

Lab 2 (Oct 18, 19 or 20\*): Physical Fitness, lab report due Oct 31, 9:15 a.m.\*\* 10%

Lab 3 (Nov 8, 9, or 10\*): Motor Skills, lab report due Nov 21, 9:15 a.m.\*\* 10%

\* data collection for each of these labs is estimated to take about 30 minutes and will be done at the beginning of a Fit 4 Life session. Please dress in comfortable clothing and plan to be ready to work with one or more children between ~ 3 and 3:30 p.m. on the date you are able to come.

\*\* lab reports are due electronically (via email from your StFX email account) or in hard copy.

Final Exam (TBA) 35%

**TEXT (recommended):** Malina, R.M., Bouchard, C., & Bar-Or, O. (2004). *Growth, Maturation and Physical Activity*. Champaign, Il: Human Kinetics.

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| **DETAILED SYLLABUS** | | | |
| **Day** | **Date** | **Topic** | **Readings** |
| 1 | Sept 7 | Introduction & setting the stage for learning in HKIN 425 |  |
| 2 | Sept 8 | Service Learning Options and Assignment |  |
| 3 | Sept 12 | Key definitions and rules of growth | Pgs 3-6 |
| Fit 4 Tots Service Learning Orientation: Monday, Sept 12 3:00 – 4:30 p.m. MAIN gym | | | |
| 4 | Sept 14 | Research designs applicable and appropriate for child growth, maturation, and development | Pgs 10-18 |
| 5 | Sept 15 | Research studies that informed what we know about child growth, maturation, and development |
| Fit 4 Life Service Learning Orientation, Sunday, Sept 18 1-3 p.m. AUX gym | | | |
| 6 | Sept 19 | Planning a research study to learn more about the influence of growth, maturation, development and adaptation on a child’s physical performance |  |
| 7 | Sept 21 | Factors influencing children’s growth, maturation, and development | Pgs 509-514; 521-522; 533-560; 565-571 |
| 8 | Sept 22 | Factors influencing children’s growth, maturation, and development |
| 9 | Sept 26 | Factors influencing children’s growth, maturation, and development |
| 10 | Sept 28 | Growth curves | Pgs 13-14 |
| 11 | Sept 29 | Growth in stature and body weight  Interpreting growth charts | Pgs 49-63 |
| 12 | Oct 3 | Interpreting growth charts - continued |
| Tuesday, Wednesday or Thursday October 4, 5, or 6  Lab 1: Anthropometry ~ 3:00 – 3:30 p.m. AUX gym | | | |
| 13 | Oct 5 | Velocity of growth, timing, peak values | Pgs 61-63 |
| 14 | Oct 6 | Midterm Exam |  |
| *Thanksgiving – Monday October 10, NO Class* | | | |
| 15 | Oct 12 | Somatotype | Pgs 83-95 |
| 16 | Oct 13 | Somatotype – measurement and evaluation |
| 17 | Oct 17 | Defining maturation | Pgs 277-297 |
| Lab 1: Anthropometry, lab report due Oct 17, 9:15 a.m. (electronic or paper submission) | | | |
| Tuesday, Wednesday, or Thursday, October 18, 19 or 20  Lab 2: Physical Fitness ~ 3:00 – 3:30 p.m. AUX Gym | | | |
| 18 | Oct 19 | Body composition, including measurement | Pgs 101-110 |
| 19 | Oct 20 | Fat and fat free mass  Measuring physical fitness in children | Pgs 69-72 |
| 20 | Oct 24 | Muscle development | Pgs 137-147 |
| 21 | Oct 26 | Strength training in children |  |
| 22 | Oct 27 | Bone development | Pgs 121-126 |
| 23 | Oct 31 | Factors influencing bone mass |  |
| Lab 2: Physical Fitness, lab report due Oct 31, 9:15 a.m. (electronic or paper submission) | | | |
| 24 | Nov 2 | Motor development and physical literacy | Chapter 10 |
| 25 | Nov 3 | Motor development and physical literacy | Chapter 13 |
| 26 | Nov 7 | Measuring strength, motor performance, motor development, and physical literacy | Pgs 121-126 |
| Tuesday, Wednesday, or Thursday November 8, 9 or 10  Lab 3: Motor Skills ~3:00 – 3:30 p.m. AUX Gym | | | |
| 27 | Nov 9 | Heart, blood, and lungs | Chapter 9 |
| 28 | Nov 10 | Measurement and development of aerobic power | Chapter 12 |
| *November 11 Remembrance Day – NO classes* | | | |
| 29 | Nov 14 | Measurement and development of aerobic power | Chapter 12 |
| 30 | Nov 16 | Measurement and development of anaerobic power | Chapter 13 |
| 31 | Nov 17 | Thermoregulation | Pgs. 493-505 |
| 32 | Nov 21 | 50 things we learned about children and their growth, maturation, and development so far | Review |
| Lab 3: Motor Skills, lab report due Nov 21, 9:15 a.m. (electronic or paper submission) | | | |
| 33 | Nov 23 | Trainability of children and adolescents |  |
| 34 | Nov 24 | Trainability of children and adolescents |
| 35 | Nov 28 | Applying what you have learned to physical education, recreational and competitive sport - considering children’s capacity for physical activity, exercise, and training and the implications on physical fitness |  |
| 36 | Nov 30 | Applying what you have learned to physical education, recreational and competitive sport - considering children’s capacity for physical activity, exercise, and training and the implications on physical fitness |
| 37 | Dec 1 | Final exam review |  |
| Service Learning Reflection (electronically submitted) no later than 11:59 p.m. Dec 2 | | | |