

University of Pretoria Yearbook 2025

Bachelor of Sports Science [BSportSci] (10135010)

Department	Biokinetics and Sports Scienc
Minimum duration of study	3 years
Total credits	407
NQF level	07

Programme information

This three-year full-time BSportSci programme includes basic and applied sciences of the human body and provides a pathway towards a BScHons (Biokinetics) or a BScHons (Sports Science). Qualified BSc (Sports Science) students may also either apply for the Postgraduate Certificate in Education or start working in the sporting industry.

Admission requirements

Important information for all prospective students for 2025

The admission requirements apply to students who apply for admission to the University of Pretoria with a **National Senior Certificate (NSC) and Independent Examination Board (IEB) qualifications. Click here for this Faculty Brochure.**

Minimum requirements			
Achievement level			
English Home			
Language or			
English First	Mathematics	Physical Sciences or Life Sciences	ΔΡς
Additional			
Language			
NSC/IEB	NSC/IEB	NSC/IEB	
4	4	4	30

For advice on a second-choice programme, please consult a Student Advisor. To make an appointment, send an email to carol.bosch@up.ac.za.

Life Orientation is excluded when calculating the APS.

Applicants currently in Grade 12 must apply with their final Grade 11 (or equivalent) results.

Applicants who have completed Grade 12 must apply with their final NSC or equivalent qualification results.

Please note that meeting the minimum academic requirements does not guarantee admission.

Successful candidates will be notified once admitted or conditionally admitted.

Applicants should check their application status regularly on the UP Student Portal at click here.

Applicants with qualifications other than the abovementioned should refer to the International



undergraduate prospectus 2025: Applicants with a school leaving certificate not issued by Umalusi (South Africa), available at click here.

International students: Click here

A limited number of places are made available to citizens from countries other than South Africa (applicants who are not South African citizens), with those from SADC countries being given preference. Applicants who have multiple citizenships, including South African citizenship, will be considered to be South African.

Transferring students

A transferring student is a student who, at the time of applying at the University of Pretoria (UP) is/was a registered student at another tertiary institution. A transferring student will be considered for admission based on NSC or equivalent qualification and previous academic performance. Students who have been dismissed from other institutions due to poor academic performance will not be considered for admission to UP.

Closing dates: Same as above

Returning students

A returning student is a student who, at the time of application for a degree programme is/was a registered student at UP, and wants to transfer to another degree at UP. A returning student will be considered for admission based on NSC or equivalent qualification and previous academic performance.

- Students who have been excluded/dismissed from a faculty due to poor academic performance may be considered for admission to another programme at UP, as per faculty-specific requirements.
- Only ONE transfer between UP faculties and TWO transfers within a faculty will be allowed.
- Admission of returning students will always depend on the faculty concerned and the availability of space in the programmes for which they apply.

Closing date for applications from returning students is the same as the above.

Note: Any deliberate ommission of information, or false information provided by an applicant in the application may result in the immediate cancellation of the application, admission or registration.

Other programme-specific information

Students who obtain a 4 or 5 in the compulsory Academic Literacy Test (TALL) will be exempted from the ELH 121 and ELH 122 modules.

Examinations and pass requirements

- In accordance with the stipulations of the General Academic Regulations a year, semester or quarter mark of at least 40% is required for admission to the examination in all undergraduate modules in the University where year, semester and quarter marks apply.
- The final mark for a specific module is calculated from the examination mark as well as the mark compiled from the evaluation of a student during continuous, objective and controlled assessment opportunities during the course of the semester/year. A final mark of at least 50% is required to pass.
- In the case of modules with practical components, students are required to also comply with the applicable attendance requirements with regard to acquiring practical skills before a pass mark can be obtained for the module.
- There are two main examination opportunities per annum, the standard and supplementary examination. In
 respect of first-semester modules, the standard examination opportunity is in May/June and the
 supplementary examination opportunity in July. In respect of second-semester modules, the standard



examination opportunity is in October/November and the supplementary examination opportunity in November/ December of the same year. Only two examination opportunities per module are allowed. If a student fails a module at the second examination opportunity, the module must be repeated.

- A supplementary examination opportunity in a module is granted to students in the following cases:
- If a student obtains a final mark of less than 50% in the relevant module at the standard examination opportunity and thus fails.
- If a student does not obtain the subminimum in the examination, as required for a specific module.
- If a student does not sit the examination in a module at the standard examination opportunity due to illness, official UP recognised sports participation or extraordinary circumstances.
- If a student fails a module at the standard examination opportunity, the examination mark obtained in the relevant module at the supplementary examination opportunity will be calculated as the final mark. The marks obtained with continuous evaluation during the course of the semester/year will not be taken into calculation. If the student passes the module at the supplementary examination opportunity, a maximum of 50% is awarded as a pass mark to the module in question.
- If a student could not sit the examination in a module at the standard examination opportunity due to illness, official UP recognised sports participation or extraordinary circumstances, the continuous evaluation mark, together with the examination mark obtained in the module in question at the supplementary examination opportunity, will be calculated as the final mark obtained in the module.
- A student requiring a limited number of modules to complete his or her degree, may in terms of faculty regulations, be admitted to a Chancellor's examination in the modules in question.

Promotion to next study year

Admission to the second year of study

- i. To be admitted to the second year of study, a student must pass PRC 100, EXE 110, FSG 110,MTL 180, ANA 123, EXE 120 and FSG 120.
- ii. Modules can only be repeated if they can be accommodated within the existing examination timetable.
- iii. Students who are repeating the first year of study, retain credit for examination modules passed.

Admission to the third year of study

- i. To be admitted to the third year of study, a student must have passed all the first and second-year modules.
- ii. Students who are repeating the second year of study, retain credit for examination modules passed.

Academic exclusion

- i. A student following the BSportSci programme will only be allowed one opportunity to repeat a year of study.
- ii. A student who does not comply with the abovementioned requirements but nevertheless wishes to be admitted to the School, may request the Dean/Chairperson in writing to consider his or her application for readmission in accordance with the prescribed procedure.

Pass with distinction

The degree is conferred with distinction on a student who obtains a cumulative average of at least 75% for all modules over the three years of study (not rounded).



Curriculum: Year 1

Minimum credits: 136

Fundamental modules

Academic information management 111 (AIM 111)

Module credits	4.00
NQF Level	05
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology and Religion
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Information Science
Period of presentation	Semester 1

Module content

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology.

Academic information management 121 (AIM 121)

Module credits	4.00
NQF Level	05
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology and Religion Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Informatics



Module content

Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

Academic English for Health Sciences (BNurs, BDietetics, BOH, BOT, BRad and BPhysio) 121 (ELH 121)

6.00
05
Faculty of Health Sciences
No prerequisites.
2 lectures per week, 1 discussion class per week
Module is presented in English
Unit for Academic Literacy
Semester 1

Module content

Academic reading as well as academic writing and presentation skills, based on the approach followed in the healthcare sciences. **Presented to students in Health Sciences only.*

Academic English for Health Sciences 122 (ELH 122)

Module credits	6.00
NQF Level	05
Service modules	Faculty of Health Sciences
Prerequisites	No prerequisites.
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Unit for Academic Literacy
Period of presentation	Semester 2

Module content

Study of specific language skills required in the Health Care Sciences, including interviewing and report-writing skills. *Presented to students in Health Sciences only. (BCur, BDietetics, BOH, BOT, Brad, BPhysT)*

Academic orientation 110 (UPO 110)

Module credits	0.00
NQF Level	00
Language of tuition	Module is presented in English



Period of presentation Year

Core modules

Introduction to human anatomy 123 (ANA 123)

Module credits	8.00
NQF Level	05
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Anatomy
Period of presentation	Year

Module content

*Closed - requires departmental selection

This module serves as the foundation of the necessary knowledge required to understand human anatomy as well as facilitate the students' understanding in future applied anatomy modules. This module covers the following aspects of human anatomy: anatomical terminology, osteology, arthrology, the muscular system, the nervous system, the cardiovascular system and the respiratory system.

Sports injuries I 110 (EXE 110)

Module credits	12.00
NQF Level	05
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection This module serves as an introduction to the fundamental concepts related to sports injuries.

Research I 111 (EXE 111)

Module credits	12.00
NQF Level	05
Prerequisites	No prerequisites.
Contact time	3 lectures per week



Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

*Closed - requires departmental selection

This module serves an introduction to research and information technology in Sport and Exercise which include computer skills; research techniques; library services and functions; literature searches; referencing techniques; plagiarism as well as ethics and theories in research. The content not only covers the steps of the research process but also explains the researcher's role in the research process.

Motor learning and development I 120 (EXE 120)

Module credits	12.00
NQF Level	05
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed - requires departmental selection

The module focuses on a study, critique and analysis of the development of movement skills in humans from infancy to older adulthood, and on an examination of the way different motor, cognitive and social abilities affect how, when and why an individual learns motor skills. Students will gain a basic understanding of the fundamental concepts related to motor learning and motor development, and will be provided with a solid background regarding the fundamental motor skills developed during childhood and adolescence.

Exercise science programme development 121 (EXE 121)

Module credits	12.00
NQF Level	05
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 2



*Closed - requires departmental selection

This module focuses on the basic principles of exercise programme design. Students will gain a basic understanding of the fundamental concepts related to exercise and will be provided with a solid background regarding the development of an exercise program. Programme development aspects for cardiorespiratory exercise, weight management and body composition programs, stretching and flexibility training, strength and endurance training, speed development and plyometrics, balance and proprioception programs, exercise selection, and periodisation are included.

Measurement and evaluation I 122 (EXE 122)

NQF Level05Contact time3 lectures per weekLanguage of tuitionModule is presented in English	Module credits	12.00
Contact time3 lectures per weekLanguage of tuitionModule is presented in English	NQF Level	05
Language of tuition Module is presented in English	Contact time	3 lectures per week
	Language of tuition	Module is presented in English
Department Biokinetics and Sports Science	Department	Biokinetics and Sports Science
Period of presentation Semester 2	Period of presentation	Semester 2

Module content

*Closed - requires departmental selection

This module introduces students to physical fitness assessment, fitness test administration, exercise testing principles and procedures, assessment of fitness components, test quality in exercise science, evaluating and interpreting test data.

Physiology 110 (FSG 110)

Module credits	6.00
NQF Level	05
Service modules	Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Physiology
Period of presentation	Semester 1

Module content

Introduction (terminology and anatomical orientation); chemical principles; cytology and histology; neurophysiology and the senses; haematology and body fluids; cardiovascular system.

Physiology 120 (FSG 120)

Module credits

6.00



NQF Level	05
Service modules	Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	FSG 110
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Physiology
Period of presentation	Semester 2

Respiratory system; nutrition; digestion and metabolism; kidneys and acid-base equilibrium; endocrinology; reproduction physiology and reproduction; skin and body temperatures.

Medical terminology 180 (MTL 180)

Module credits	8.00
NQF Level	05
Service modules	Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Ancient and Modern Languages and Cultures
Period of presentation	Semester 1

Module content

The acquisition of a basic medical orientated vocabulary compiled from Latin and Greek stem forms combined with prefixes and suffixes derived from those languages. The manner in which the meanings of medical terms can be determined by analysing the terms into their recognisable meaningful constituent parts, is taught and exercised. The functional use of medical terms in context as practical outcome of terminological application is continually attended to.

Physics for biology students 131 (PHY 131)

Module credits	16.00
NQF Level	05
Service modules	Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
Prerequisites	A candidate must have passed Mathematics with at least 60% in the Grade 12 examination



Contact time	1 discussion class per week, 1 practical per week, 4 lectures per week
Language of tuition	Module is presented in English
Department	Physics
Period of presentation	Semester 1

Note: PHY 131 is aimed at students who will not continue with physics. PHY 131 cannot be used as a substitute for PHY 114.

Units, vectors, one dimensional kinematics, dynamics, work, equilibrium, sound, liquids, heat, thermodynamic processes, electric potential and capacitance, direct current and alternating current, optics, modern physics, radioactivity.

Sports practical 100 (PRC 100)

Module credits	12.00
NQF Level	05
Contact time	2 practicals per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed - requires departmental selection.

This module will serve as the foundation for swimming, netball, athletics and gymnasium movement skill acquisition. The module serves as exposure to and experience in the movement skills practiced in swimming, netball, athletics and gymnasium. This will aid the Sport Scientist and Biokineticist to better understand and condition clients and patients practicing these sports.Sports-specific skills, team situation; rules and regulations, refereeing; game analysis; coaching.



Curriculum: Year 2

Minimum credits: 141

Core modules

Motor learning and development II 221 (EXE 221)

Module credits	16.00
NQF Level	06
Prerequisites	EXE 120
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection

An analysis and critique of how motor learning is affected by adulthood and aging and how to design appropriate programmes to maximise motor skill acquisition.

Sports injuries II 222 (EXE 222)

Module credits	16.00
NQF Level	06
Prerequisites	EXE 110
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed – requires departmental selection

The module aims to further the knowledge and application of fundamentals concepts related to sports injuries.

Nutrition for exercise and sport 223 (EXE 223)

Module credits	16.00
NQF Level	06
Prerequisites	2nd-year status.
Contact time	2 lectures per week
Language of tuition	Module is presented in English



Module content

*Closed – requires departmental selection

Understanding the basic principles of substrate location and utilization in an exercise and sport-related context, as well as the application of nutrition recommendations for exercise and sport.

Basic emergency care 286 (GNK 286)

Module credits	5.00
NQF Level	06
Prerequisites	(does not apply to the BOH programme) CMY 151,FIL 155,MGW 112,MLB 111,PHY 131,MTL 180,GNK 120,BOK 121,GNK 127,GNK 128, AIM 111 and 121, ELH 111 and 112 2nd- year academic status.
Contact time	4 practicals per week, 2 other contact sessions per week
Language of tuition	Module is presented in English
Department	Health Sciences Dean's Office
Period of presentation	Semester 1 and/or 2

Module content

This practical-orientated module will provide students with training in basic life support, automated external defibrillation, and first aid treatment to the suddenly ill or injured patient. The theoretical content will be offered in an interactive format where students are expected to master the content as self-directed learning. Practical skills will be demonstrated in the skills laboratory and students will get the opportunity to practice the skills under guidance and supervision.

Sports practical II 201 (PRC 201)

Module credits	16.00
NQF Level	06
Prerequisites	PRC 100
Contact time	2 practicals per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed - requires departmental selection

This module will serve as the foundation for rugby, hockey, cricket and tennis movement skill acquisition. This module serves as exposure to and experience in the movement skills practiced in rugby, hockey, cricket and tennis. This will aid the Sport Scientist and Biokineticist to better understand and condition clients and patients practicing these sports.



Exercise physiology I 212 (SMC 212)

Module credits	14.00
NQF Level	06
Prerequisites	2nd-year status.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection

Homeostasis, thermoregulation, bone and connective tissue adaptations, muscle adaptations, and muscle force development.

Biomechanics I 213 (SMC 213)

Module credits	16.00
NQF Level	06
Prerequisites	2nd-year status.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection

This module focuses on the biomechanical principles involved in human movement and sports activities. It comprises primarily of the study of linear and angular kinematics and kinetics of human motion and introduces the student to various applications and measurement techniques used in biomechanics.

Human anatomy II 214 (SMC 214)

Module credits	16.00
NQF Level	06
Prerequisites	ANA 123
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1



*Closed – requires departmental selection

This module builds on the knowledge attained in ANA 123 and involves comprehensive study of the muscular system (origin, insertion, action and nerve supply of the muscles of the human body) and the nervous system.

Exercise physiology II 221 (SMC 221)

Module credits	14.00
NQF Level	06
Prerequisites	SMC 212
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed - requires departmental selection

Exercise metabolism, cardiovascular adaptations, respiratory adaptations, and water, electrolyte and acid-base balance responses to exercise.

Event and facility management 211 (SMS 211)

Module credits	12.00
NQF Level	06
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 2

Module content

*Closed - requires departmental selection

This module will provide the basic knowledge of management (planning, leading, organising and controlling) of sporting and health promotion events and exercise facilities.



Curriculum: Final year

Minimum credits: 130

Core modules

Exercise science programme development II 310 (BGN 310)

Module credits	15.00
NQF Level	07
Prerequisites	3rd-year status.
Contact time	1 practical per week, 1 lecture per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed - requires departmental selection

The module focuses on the practical application of the fundamental concepts related to exercise as well as principles for exercise programme design.

Measurement and evaluation II 320 (BGN 320)

Module credits	15.00
NQF Level	07
Prerequisites	3rd-year status.
Contact time	1 practical per week, 1 lecture per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection

This module includes the theoretical study and practical demonstration of exercise tests for health-related and sport-related physical fitness components, as well as exercise test data interpretation, evaluation and reporting.

Biomechanics II 321 (BGN 321)

Module credits	15.00
NQF Level	07
Prerequisites	3rd-year status.
Contact time	2 lectures per week, 1 practical per week
Language of tuition	Module is presented in English



Module content

*Closed - requires departmental selection

This unit involves the application of biomechanical principles to analyse human motion using various biomechanical methods. Students will learn to collect and analyse two-dimensional video and force platform data, with a focus on gait analysis and exercise training techniques.

Research II 301 (EXE 301)

Module credits	20.00
NQF Level	07
Prerequisites	EXE 111
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed - requires departmental selection

In this module the focus will be on fundamental quantitative or experimental research methodology, and statistics. The student will have the opportunity to demonstrate an understanding of the module through the medium of a written theoretical examination and a research proposal.

Sports injuries III 310 (EXE 310)

Module credits	15.00
NQF Level	07
Prerequisites	EXE 222
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

Module content

*Closed – requires departmental selection

Theoretical knowledge will be gained in the understanding of region specific sport injuries. This includes the mechanism of injury, type of injury, assessment and management of the sport injury.

Sports psychology 212 (MBK 212)

10.00

Module credits



NQF Level	06
Prerequisites	2nd-year status.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Semester 1

*Closed - requires departmental selection

In this module students will form an understanding of the multi-dimensional nature of sport psychology, with specific reference to Performance Termination (PT), Performance Dysfunction (PDy), Performance Impairment (PI) and Performance Development (PD) as portrayed in the Multi-Level Classification System for Sport Psychology (MCS-SP). Through studying the MCS-SP students will understand the role of sport psychologists in the sport context, how sport psychology focuses on the psychological well-being of athletes within sport organizations, as well as the psychological aspects that contribute to excellence in sport performance.

Exercise science practice 301 (PRC 301)

Module credits	20.00
NQF Level	07
Prerequisites	Final year status.
Contact time	2 practicals per week
Language of tuition	Module is presented in English
Department	Biokinetics and Sports Science
Period of presentation	Year

Module content

*Closed - requires departmental selection

This module serves as the platform for supervised practical training and application in exercise testing and interpretation for sport-related physical fitness components, exercise programme design and implementation for sport-related physical fitness, and sport science work experience. This module requires the student to have accumulated 45 hours of Sport First aid.

Exercise physiology III 320 (SMC 320)

20.00
07
SMC 221
1 tutorial per week, 2 lectures per week
Module is presented in English
Biokinetics and Sports Science



Module content

*Closed - requires departmental selection.

Allostasis, energy dynamics, fatigue, immune system considerations, muscle hypertrophy, DOMS, NSAIDs, environmental physiology.

General Academic Regulations and Student Rules

The General Academic Regulations (G Regulations) and General Student Rules apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations. The G Regulations are updated annually and may be amended after the publication of this information.

Regulations, degree requirements and information

The faculty regulations, information on and requirements for the degrees published here are subject to change and may be amended after the publication of this information.

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.