

COURSE CATALOG

BACHELOR OF SCIENCE PROGRAM
IN PROSTHETICS AND ORTHOTICS (INTERNATIONAL PROGRAM)
ACADEMIC YEAR 2020

SIRINDHORN SCHOOL OF PROSTHETICS AND ORTHOTICS (SSPO)

FACULTY OF MEDICINE SIRIRAJ HOSPITAL, MAHIDOL UNIVERSITY 14 ARUN-AUMARIN ROAD, ARUN-AUMARIN, BANGKOKNOI, BANGKOK, 10700 THAILAND

COURSE CATALOG

Bachelor of Science Program in Prosthetics and Orthotics (International Program)

Academic Year 2020

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DEGREE OFFERED

Bachelor of Science in Prosthetics and Orthotics (International Program)

B.Sc. (Prosthetics and Orthotics)

CURRICULUM STRUCTURE

Subject	Credits
General Education Subject	31
Core Subject	116
- Basic Science Subject	8
- Basic Medical Science Subject	18
- Basic Prosthetics and Orthotics Subject	7
- Prosthetics and Orthotics Subject	83
Elective Subject	6
Total	153





RECOMMENDED FOUR-YEAR PLAN

1st Year				
Semes	ster 1			Credits
SCID	182	Nature and Philosophy of science		3(3-0-6)
SCID	183	21st Century Learning and Learners		3(3-0-6)
SCIN	101	Creative Thinking and Innovation		2(2-0-4)
SCBE	100	Wonder of life		3(3-0-6)
SCCH	161	General Chemistry		3(3-0-6)
SCPY	169	Elementary Physics		3(3-0-6)
SIPO	123	Introduction to Prosthetics and Orthotics		2(2-0-4)
SIPO	101	Elementary Thai 1		3(3-0-6)
			Total	22

1st Yea	ar			
Semes	ter 2			Credits
LALA	280	Philosophy for Today's Life		3(3-0-6)
ICGE	122	Morality and Ethical Studies		3(3-0-6)
ICGE	124	English for Academic Presentation		2(2-0-4)
ICGE	125	Critical Thinking		3(3-0-6)
ICGE	141	Essential of Entrepreneurship		3(3-0-6)
SCMA	191	Statistics for Medical Science		2(2-0-4)
SIPO	102	Elementary Thai 2		3(3-0-6)
XXXX	XXX	Electives		2(X-X-X)
			Total	21



RECOMMENDED FOUR-YEAR PLAN (CONT.)

2 nd Y	'ear		
Seme	ster 1		Credits
SIAN	221	Anatomy	4(3-2-7)
SIPS	251	Physiology	2(2-0-4)
SIPA	213	Pathology	2(1-2-3)
SICP	212	Clinical Pathology	1(1-0-2)
SIPO	212	Biomechanics	3(3-0-6)
SIRM	212	Rehabilitation Medicine	3(3-0-6)
SIPO	262	Materials Science for Prosthetics and Orthotics	1(1-0-2)
SIPO	263	Prosthetic and Orthotic Technical Skills	4(1-6-5)
		Total	20

2 nd Y	'ear		
Seme	ster 2	2	Credits
SIPC	212	Psychology Practice for Persons with Physical Disabilities	1(1-0-2)
SIPO	264	Patient Assessment and Gait Analysis	2(1-2-3)
SIPO	273	Foot & Ankle Foot Orthotic Science	3(3-0-6)
SIPO	274	Foot & Ankle Foot Orthotic Practice	5(0-10-5)
SIPO	275	Medical Footwear and Shoe Modification	3(1-4-4)
SIPO	276	Spinal Orthotic Science	2(2-0-4)
SIPO	277	Spinal Orthotic Practice	4(0-8-4)
		Total	20



RECOMMENDED FOUR-YEAR PLAN (CONT.)

3rd Y	ear		
Seme	ster	1	Credits
SIPO	383	Ankle Disarticulation and Transtibial Prosthetic Science	3(3-0-6)
SIPO	384	Ankle Disarticulation and Transtibial Prosthetic Practice	5(0-10-5)
SIPO	385	Knee Disarticulation and Transfemoral Prosthetic Science	3(3-0-6)
SIPO	386	Knee Disarticulation and Transfemoral Prosthetic Practice	5(0-10-5)
SIPO	395	Clinical Practice in Prosthetics	4(0-12-4)
		Total	20

3 rd Year		
Semester 2		Credits
SIPO 363 Research Process in Prosthetics and Orthotics		2(2-0-4)
SIPO 364 Clinical Research Instrumentation in Prosthetics and Ort	thotics	2(1-2-3)
SIPO 375 Knee Ankle Foot Orthotic Science		2(2-0-4)
SIPO 376 Knee Ankle Foot Orthotic Practice		3(0-6-3)
SIPO 377 Upper Limb Orthotic Science		3(2-2-5)
SIPO 396 Clinical Practice in Orthotics		4(0-12-4)
	Total	16



RECOMMENDED FOUR-YEAR PLAN (CONT.)

4th Year		
Semester	1	Credits
SIPO 461	Wheelchair and Seating for Persons with Physical Disabilities	2(1-2-3)
SIPO 484	Upper Limb Prosthetic Science	4(2-4-6)
SIPO 485	Partial Foot and Hip Disarticulation Prosthetic Science	3(1-4-4)
SIPO 494	Preparation for Clinical Experience in Prosthetics and Orthotics	6(1-15-7)
XXXX XXX	Electives	2(X-X-X)
XXXX XXX	Electives	2(X-X-X)
	Total	19

4th Year		
Semeste	r 2	Credits
SIPO 46	Research Project in Prosthetics and Orthotics	3(0-6-3)
SIPO 49	Clinical Experience in Prosthetics and Orthotics	6(0-18-6)
SIPO 49	External Clinical Experience in Prosthetics and Orthotics	6(0-18-6)
	Total	15



COURSE DESCRIPTIONS

General Education SubjectSocial Science and Humanities Subjects 12 Credits

LALA 280 Philosophy for Today's Life 3(3-0-6)

Prerequisite: -

Basic concepts of philosophy necessary for today's life; free will; the value of life; happiness; love; living an ethical lifestyle in a global context

ICGE 122 Morality and Ethical Studies 3(3-0-6)

Prerequisite: -

Fundamental ethical theories and paradigms in comparison, particularly Virtue Ethics, Deontology and Utilitarianism. Major topics in applied ethics with focus on themes relating to the students' major subjects.

ICGE 125 Critical Thinking 3(3-0-6)

Prerequisite: -

Basic formal tools from sentential and predicate logic; logical structures of the primary classes of arguments used in the everyday contexts of life; analysis of arguments within these classes for their strengths and weaknesses; common fallacies in reasoning, including reasoning involving determining probabilities; construction of good arguments using principles of informal reasoning.

ICGE 141 Essentials of Entrepreneurship 3(3-0-6)

Prerequisite: -

Creating new businesses, capturing new markets, enhancing organizational effectiveness, entrepreneurship theories and frameworks, practices of promoting and managing startups, the life-cycle of an entrepreneurial venture, concept implementation, entrepreneurial pathway, customer analysis, integrated marketing, funding, securing and managing capital, human capital management.



Language Subjects

8 Credits

SIPO 101 Elementary Thai 1 3(3-0-6)

Prerequisite: -

Elements of fundamental grammar and basic vocabulary allowing the students to request, give and understand basic information, read simple short texts, and write at a simple sentence level.

SIPO 102 Elementary Thai 2 3(3-0-6)

Prerequisite: -

More fundamental grammar and basic vocabulary allowing the students to hold simple short conversations on common topics and situations, express opinions in a simple form, read short texts and write at a short paragraph levels.

ICGE 124 English for Academic Presentation 2 (2-0-4)

Prerequisite: -

Methods and strategies of oral rhetoric and speech making. Frequent oral presentations. Informative or persuasive speeches, debates, impromptu speaking, and seminar or conference-style presentations. Development of students' speaking proficiency and confidence to speak English in public academic forums.

Science & Mathematics Subjects

10 Credits

SCBE 100 Wonder of life 3 (3-0-6)

Prerequisite: -

Origin of life on Earth; composition of life and its organization; cell and its life; form breakfast to ATP; reproduce or die; like father like son versus like mother like daughter; adapt or otherwise extinct; we are the world; pollution not in my backyard

SCMA 182 Statistics for Health Science 2 (2-0-4)

Prerequisite: -

Concepts and applications of probability and probability distributions in various events; interpretation of statistical values; descriptive statistics; sampling for good representatives of populations and its use in estimation and hypothesis testing.



SCID 183 21st Century Learning and Learners 3 (3-0-6)

Prerequisite: -

21st century learning; 21st century learners; master learners; logical thinking and reasoning; critical thinking; creative thinking; strategic thinking, effective problem solving, effective communication and presentation; technology for learning

SCIN 101 Creative Thinking and Innovation 2 (2-0-4)

Prerequisite: -

Process thinking, creative thinking, innovation, problem solving, applications of creative thinking and innovation to learning, applications of creative thinking and innovation to living.

Core Subject	116 Credits
Basic Science Subjects	8 Credits

SCCH 161 General Chemistry 3 (3-0-6)

Prerequisite: -

Comprehensive concepts and principles of chemistry: atomic structure; chemical bonding; gases and the kinetic molecular theory of gases, phase equilibria, solutions and colloids, chemical thermodynamics, chemical kinetics, ionic equilibria, electrochemistry, basic organic molecules and their uses.

SCPY 169 Elementary Physics 3 (3-0-6)

Prerequisite: -

Mechanics of motion and equilibrium, work and energy, elastic properties of matters, fluid mechanics and blood circulatory system, temperature, heat, gas law and respiratory system, waves and wave properties, ears and hearing, lights and vision, electricity, magnetism, electricity in human body, electronics, atoms, nuclei and nuclear medicine

SCMA 191 Statistics for Medical Science 2 (2-0-4)

Prerequisite: -

Concepts and applications of probability and probability distributions in various events; interpretation of statistical values; descriptive statistics; sampling for good representatives of populations and its use in estimation and hypothesis testing; presentation of article or published research according to groups of student's interest by statistical methods.



Basic Medical Science Subjects

18 Credits

SIAN 221 Anatomy 4(3-2-7)

Prerequisite: Pass all subjects in 1st academic year

Gross anatomy of human body regarding structure, function and relationships between various structures of head, face and neck, upper extremity and brachial plexus, and the thoracic and abdominal wall including surface anatomy and practice of cadaver dissection.

SIPS 251 Physiology 2 (2-0-4)

Prerequisite: Pass all subjects in 1st academic year

Normal functions and mechanism of the body systems such as the musculoskeletal, circulatory, respiratory, endocrine, urinary, digestive, metabolism and body temperature regulatory systems.

SIPA 213 Pathology 2 (1-2-3)

Prerequisite: Has been studied or study with courses of SIAN 219 and SIPS 219

Causes, mechanisms and basic pathologic changes of cell and tissue of human body suffering from diseases. Pathology of organ systems that are important and / or commonly found.

SIPC 212 Clinical Pathology 1 (1-0-2)

Prerequisite: -

Principle of laboratory investigation; clinical microscopic, clinical chemistry, serology, hematology, molecular clinical pathology

SIPO 212 Biomechanics 3 (3-0-6)

Prerequisite: -

Basic mathematics; linear and angular kinematics, linear and angular kinetics; biomechanics of musculoskeletal system; posture and balance; ergonomics; biomechanics of lower limb, upper limb and spine; biomechanical application of lower limb, upper limb and spine to the orthotic and prosthetic device



SIPC 212 Psychology Practice for Persons with Physical Disabilities 1 (1-0-2)

Prerequisite: -

Basic Psychology; Clinical Psychology; Psychological reaction to loss; How to approach and communication for persons with physical disabilities

SIRM 212 Rehabilitation Medicine 3 (3-0-6)

Prerequisite: Has been studied or study with courses of SIPA 219

Gross rehabilitation medicine and teamwork, goals and principles of rehabilitation, rehabilitation, assessment, quality of life, activities of daily living, Introduction to physical therapy, occupational therapy: manual muscle testing, range of motion; Rehabilitation of common disease/disorders.

SIPO 363 Research Process in Prosthetics and Orthotics 2 (2-0-4)

Prerequisite: -

Introduction to research methodology; research problems; research design; statistics in research; research example in prosthetics and orthotics; research proposal structure; research presentation; ethics in research

Basic Prosthetics and Orthotics Subjects

7 Credits

SIPO 162 Introduction to Prosthetics and Orthotics 2 (2-0-4)

Prerequisite: -

Terminologies & definition in prosthetics and orthotics; role of prosthetist and orthotist; introduction to prosthetic and orthotic clinic; history of prosthetics and orthotics in Thailand; national and international prosthetic and orthotic services; code of ethics; laws and regulations relating to prosthetics and orthotics; patient centered care; community based rehabilitation; patient communication

SIPO 262 Materials Science for Prosthetics and Orthotics 1(1-0-2)

Prerequisite: -

Introduction to material science in prosthetics and orthotics; application and properties of wood, thermoplastic, leather, metal, fabric, chemical material



SIPO 263 Prosthetic and Orthotic Technical Skills 4 (1-6-5)

Prerequisite: -

Basic practical skills in prosthetics and orthotics; awareness of health and safety; basic skills for the use of hand tools, portable power tools and machines; introduction to materials used in prosthetics and orthotics, material sciences, decision on the use of materials

Prosthetics and Orthotics Subjects

83 Credits

SIPO 264 Patient Assessment and Gait Analysis 2 (1-2-3)

Prerequisite: -

Fundamental information regarding patient assessment; patient assessment principles; orthotic patient assessment; prosthetic patient assessment; special test; application of patient assessment; gait analysis instruments; normal gait; pathologic gaits; gait deviations; gait analysis principles

SIPO 273 Foot & Ankle Foot Orthotic Science 3 (3-0-6)

Prerequisite: -

Biomechanics of the lower leg; pathology of foot; an assessment and gait analysis; biomechanics of foot and ankle foot orthosis; the variation of materials for foot and ankle foot orthosis; prescription principle of foot and ankle foot orthosis; padding, posting and offloading in foot orthosis; shoe & shoe modification; principle of lower limb orthosis; variation of foot an ankle foot orthosis; prescription principle of foot and ankle foot orthosis

SIPO 274 Foot & Ankle Foot Orthotic Practice 5 (0-10-5)

Prerequisite: -

An assessment and gait analysis; foam impression casting & fabrication technique for flexible foot orthosis; padding, posting and offloading technique; foot orthotic fitting procedure; casting technique for UCBL; UCBL fitting procedure; casting technique for the ankle foot orthosis; fabrication and joint setting techniques



SIPO 275 Medical Footwear and Shoe Modification 3 (1-4-4)

Prerequisite: -

Lower limb assessment and deformities; pedorthic treatment options including materials selection, design, fit, function, biomechanical properties, construction methods for medical grade footwear and footwear modification; clinical consideration of the footwear to manage pathologies and deformities; existing orthotic appliances and its impact on footwear fitting; application of knowledge to construct lasts, orthotic appliances, medical grade footwear and footwear modification

SIPO 276 Spinal Orthotic Science 2 (2-0-4)

Prerequisite: -

A review of anatomy, biomechanics, pathologies related to spine; rehabilitation approach to spinal problems, exercise for spinal problems; prescription consideration; spinal orthotic principle, variation of spinal orthoses; orthotic management for patient with scoliosis; x-ray examination; biomechanical principle of orthotic design; patient communication and assessment; measurement and casting, rectification, fitting and modifying the spinal orthoses

SIPO 277 Spinal Orthotic Practice 4 (0-8-4)

Prerequisite: -

Clinical demonstration and practice of spinal orthotic management for patient with spinal disorders; patient communication and assessment; prescription and orthotic design, material selection, casting, rectification, fabrication, fitting, problem solving and outcome evaluation; spinal orthotic adjustment as necessary to obtain optimal function for the specific patient; patient, caregiver and family education in the use and care of orthotic devices

SIPO 383 Ankle Disarticulation and Transtibial Prosthetic Science 3 (3-0-6) Prerequisite: -

Anatomy, physical and functional deficits related to the transtibial and ankle disarticulation amputee; basic principle and biomechanical concept of the transtibial and ankle disarticulation prosthesis; composition of prosthesis, variation of design, materials and components; patient assessment; prosthetic prescription consideration; principles of manufacturing, alignment setting, fitting and adjustment of the transtibial and ankle disarticulation prosthesis; prosthetic gait analysis; transtibial and ankle disarticulation prosthetic gait training; patient education



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SIPO 384 Ankle Disarticulation and Transtibial Prosthetic Practice 5 (0-10-5) Prerequisite: -

Clinical and technical aspects on transtibial and ankle disarticulation amputees; an assessment and prescription based on the biomechanics principle; prosthetic socket design, components and materials selection; casting, rectification, fabrication and alignment, fitting; prosthetic problem analysis, solution

SIPO 385 Knee Disarticulation and Transfemoral Prosthetic Science 3 (3-0-6) Prerequisite: -

Physical, mental and functional deficits following knee disarticulation and transfemoral amputation; medical treatment; pre- and post-operative prosthetic care; prescription considerations; biomechanics; prosthetic materials and components; principles of fabrication, fitting, dynamic alignment of knee disarticulation and transfemoral prostheses

SIPO 386 Knee Disarticulation and Transfemoral Prosthetic Practice 5 (0-10-5) Prerequisite: -

the demonstration and practice of the physical, mental and functional deficits following knee disarticulation and transfemoral amputation; patient assessment; medical treatment; pre- and post-operative prosthetic care; prescription considerations; biomechanics; prosthetic materials and components; principles of fabrication, fitting, dynamic alignment of knee disarticulation and transfemoral prostheses; professional ethics; patients, rights, human relations

SIPO 395 Clinical Practice in Prosthetics 4 (0-12-4)

Prerequisite: -

A supervised clinical practice in the general provision of prosthetic services to the general public; a review of biomechanical and clinical assessments, gait analysis; medical reports; review cases by peer and supervisor interaction manufacture or modification of prosthetic device; professional competence, attitudes and standards appropriate for practice, interpersonal skills, workplace professionalism and teamwork; case planning and management



SIPO 364 Clinical Research Instrumentation in Prosthetics and Orthotics 2 (1-2-3) Prerequisite: -

An introduction to clinical research instrumentation in prosthetics and orthotics; the outcome measurement in prosthetics and orthotics; motion measurement; load and pressure measurement; 3D motion analysis; metabolism and energy expenditure measurement; mechanical property testing; data analysis and interpretation

SIPO 375 Knee Ankle Foot Orthotic Science 2 (2-0-4)

Prerequisite: -

A lower limb assessment and deformities of hip, knee, ankle; clinical evaluation for orthotic prescription, orthotic adjustment, treatment plan; pediatric hip and knee orthosis; principles of orthotic treatment; material and component selection; biomechanical approach; knee ankle foot orthotic fabrication, fitting, outcome measurement, clinical problem solving; complication of knee ankle foot orthotic fitting

SIPO 376 Knee Ankle Foot Orthotic Practice 3 (0-6-3) Prerequisite: -

A clinical practice of lower limb assessment; deformities of hip, knee, ankle; evaluation for orthotic prescription, orthotic adjustment, treatment plan; principles of orthotic treatment; material and component selection; knee ankle foot orthotic fabrication, fitting, outcome measurement, clinical problem solving; complication of knee ankle foot orthotic fitting

SIPO 377 Upper Limb Orthotic Science 3 (2-2-5)

Prerequisite: -

A review of anatomy, biomechanics, pathologies related to upper limb; prescription consideration principle; material used in upper limb orthoses; variation of upper limb orthoses; patient assessment, measurement and casting, rectification, fitting and modifying the upper limb orthoses



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SIPO 396 Clinical Practice in Orthotics 4 (0-12-4)

Prerequisite: -

A supervised clinical practice in the general provision of orthotic services to the general public; review biomechanical and clinical assessments, medical reports, including radiology results; a review of cases related manufacture or modification of orthotic device; professional competence, attitudes and standards appropriate for practice, interpersonal skills, workplace professionalism and teamwork; case planning and management

SIPO 461 Wheelchair and Seating for Persons with Physical Disabilities 2 (1-2-3) Prerequisite: -

An introduction to wheelchair users; wheelchair services; wheelchair mobility; sitting upright and transfers; pressure sores; appropriate wheelchairs; cushions and cushion fabrication; assessment and physical assessment; prescription; fitting; user training; maintenance and repairs; follow up

SIPO 484 Upper Limb Prosthetic Science 4 (2-4-6) Prerequisite: -

An overview, general principles, level of upper limb amputation; congenital upper limb deficiency; prosthetics for upper limb amputation; biomechanics, prescription considerations, materials and components of upper limb prostheses; principles, demonstration and practice of assessment, designation and prescription, casting, mechanism of suspension, fabrication, assembly, fitting, harness and cable, adjustment, cosmetic finishing for upper limb prostheses; problem solving skills; application of knowledge from theory to practice; self-assessment; multidisciplinary team working; professionalism; professional ethics; patient sight; good human relations; communications



SIPO 485 Partial Foot and Hip Disarticulation Prosthetic Science 3 (1-4-4) Prerequisite: -

Physical and functional deficits at each level of partial foot amputee; basic principle of the partial foot prosthesis; variation of design and materials; prosthetic prescription consideration in each level of amputation; principles of manufacturing, fitting and adjustment of the partial foot prosthesis; anatomy, physical and functional deficits that related to the hip disarticulation amputee; basic principle of the hip disarticulation prosthesis; composition of prosthesis, variation of socket design, prosthetic hip joint components; patient assessment; prosthetic prescription consideration; principles of manufacturing, alignment setting, fitting and adjustment of the hip disarticulation prosthesis; hip disarticulation prosthetic gait training; patient education; partial foot and hip disarticulation prosthetic practice project

SIPO 494 Preparation for Clinical Experience in Prosthetics and Orthotics 6 (1-15-7) Prerequisite: -

The process of patient check-in until device delivery in the clinical service; the reimbursement of the prosthetic and orthotic device following the patient's payment type; time management in clinical practice; review the proper performance to approach the patient; variety case study discussion

SIPO 462 Research Project in Prosthetics and Orthotics 3 (0-6-3) Prerequisite: -

Writing research proposal; doing research; presenting research; writing final research report

SIPO 495 Clinical Experience in Prosthetics and Orthotics 6 (0-18-6) Prerequisite: -

A clinical practice of the assigned prosthetic and orthotic device under supervision at the training placement at the Faculty of Medicine Siriraj Hospital and/or collaborating center; the practice including assessment, prescription considerations, manufacturing the appropriate prosthetic and orthotic device following the patient's condition, in the proper manner of professional ethics, patient's right and good human relations



SIPO 496 External Clinical Experience in Prosthetics and Orthotics 6 (0-18-6)

Prerequisite: -

A clinical practice of the assigned prosthetic and orthotic device under supervision at the training placement or the collaborating hospital; the practice including assessment, prescription considerations, and manufacturing the appropriate prosthetic and orthotic device following the patient's condition, in the proper manner of professional ethics, patient's right and good human relations

Elective Subjects

6 Credits

SIPO 414 Rehabilitation Practice 2 (0-4-2)

Prerequisite: -

A practice with multidiscipline disciplinary rehabilitation team; physical therapy, occupational therapy, speech therapy, recreational therapy, psychology and social work, professional ethics; patient's right; good human relations.

SIPO 415 Prosthetic and Orthotic Practice 2 (0-4-2)

Prerequisite: -

Prosthetic and orthotic practice as prosthetist and orthotist assistant in prosthetic and orthotic unit or organization.

SIPO 419 Prosthetic and Orthotic Education 2 (0-4-2)

Prerequisite: -

An introduction to prosthetic and orthotic education; psychology of learning; curriculum design; program evaluation; student presentation

SIPO 472 Orthotic Science for Clubfoot 2 (1-2-3)

Prerequisite: -

Patient assessment; biomechanics concept of the lower limb; joint alignment; pathology of clubfoot and treatments options; orthotic treatment plan and specific technique for clubfoot; design, materials and components to support the treatment plan; evaluate the fit and function of the device; adjust as necessary to obtain optimal function for the specific patient; educate the patient, caregiver and family in the use and care of orthotic devices



SIPO 473 Cranial Remolding Orthotic Science 2 (1-2-3)

Prerequisite: -

Patient assessment; anatomy and pathology of involving diseases; general and orthotic treatments; types, indications, precautions, and contraindications of cranial remodeling orthoses; materials, designs, procedures, and concerns in making an orthosis; adjusting an orthosis; counselling

SIPO 474 Orthotic Science for Charcot Foot 2 (1-2-3)

Prerequisite: -

Patient assessment; biomechanics and concept of orthotic management of charcot foot; ankle alignment; ankle and foot anatomy particularly in nervous system; pathology of charcot foot deformity and treatment options; orthotic treatment plan and specific technique for charcot deformities; design, materials and components to support the treatment plan; evaluate the fit and function of the device; adjust as necessary to obtain optimal function for the specific patient; educate the patient regarding to use and care of orthotic devices

SIPO 486 Custom Silicone in Prosthetic Science 2 (1-2-3) Prerequisite: -

Overview of silicone elastomers; basic silicone chemistry, types, mold manufacturing; prosthetic application, prescription considerations, assessment, design; molding machines, manufacturing processes; fabrication techniques; fitting and problem solving

