UNIVERSITY OF SARAJEVO – FACULTY OF DENTISTRY WITH DENTAL CLINICAL CENTER

AND

EUROPEAN ACADEMY OF IMPLANT DENTISTRY, SMILE USA ACADEMY and ROSEMAN SCHOOL OF DENTISTRY, UTAH

ACADEMIC SPECIALIST AND MASTER STUDY OF DENTAL IMPLANTOLOGY

CURRICULUM OF STUDY PROGRAM

1. GENERAL

Modern Pedagogy – Case Based Learning(CBL)

The *Academic specialist and master study of dental implantology* curriculum created for Bosnia and the Balkan region has been designed to be in tune with the modern trends in pedagogy that focuses on student oriented teaching methods rather than the traditional faculty oriented lecture formats. This is a departure from the existing styles of the Implant training formats given in a typical University setting.

While it is logical to teach students the fundamentals with basic sciences first and then progress to advanced implantology techniques, there is a lapse in correlation overtime between the basic science and the clinical methodology that is being taught. It is true with the conventional undergraduate curriculum, the students tend to forget much of their anatomy, pharmacology, occlusion and biochemistry by the time they get to the clinics. They then wish for a refresher course. Hence the introduction of Case Based Learning (CBL) format for this study program.

The CBL method of teaching can have several important purposes. A central purpose is to foster analytic or critical thinking, which will also develop student's confidence and skill in dealing successfully with unanticipated issues under practical constraints. Another key purpose is to beneficially transfer much of the responsibility for learning from the teacher to the student, whose role importantly shifts from passive absorption to active construction of meaning. The teacher challenges students to be prepared to discuss various aspects of the material, to set priorities for learning and to acquire information as it is needed to deal with the problem at hand. Cases help students learn higher-level concepts and their application to practical situations. A good case discussion can be lively, exciting and involving for learners. It energizes the students. It emphasizes synergistic collaborative learning, in which the group product exceeds the sum of learners' individual contributions because it results partly from the interaction among them. This confidence as well as knowledge is enhanced.

Finally, the case method communicates the important value of good questions in situations where there are few single right answers. Learning to ask the right question is imperative to successful treatment.

There is no simple and unequivocal "right answer" to the problems presented in the cases. There may be some solutions which arguably are better than others under some circumstances. One purpose of discussing the cases is to explore what the circumstances appear to be to each of the people involved and why they do not appear to be uniform, to identify possible ways of dealing with the problems, and to encourage learners to make their own decisions based upon their reflections and interpretation of the case. The insight gained from this process hopefully enables learners to deal with, or prevent, untoward incidents in their own settings. Case studies also raise awareness of educational issues and of possible ways of dealing with them. Therefore, learners may be better able to anticipate and cope with new and unrelated problems.

Rationale for Case-Based Learning (CBL)

There are three principles from Cognitive Psychology that provide support for Case based learning(CBL).

First, CBL activates the prior knowledge of the learner, since learners must use their previous knowledge to help address the problem posed. Prior knowledge may be the most important determinant of the nature and amount of new information that can be assimilated and processed for use.

Second, as learners discuss a case, they elaborate on knowledge that has been presented initially and on new knowledge that is contributed. Learners create new associations among prior concepts and multiple cognitive links among old and new concepts. The more links that are created, the better learners will be able to retrieve information from memory and adapt it.

Third, CBL presents problems to learners as they would occur in actual situations. Learning occurs within a context similar to the one in which it will be applied. The problem as posed, and its resolution, cues the learner when similar problems arise in practice. These cues are essential in order to access prior knowledge embedded in our memory.

General Course Objectives

1. To impart the participants the understanding of the diagnostic and treatment modalities necessary to properly treat patients who are candidates for dental implant therapy. The interdisciplinary approach utilizing case based learning methodology will include lectures, demonstrations, interactive seminars, hands on sessions and relevant review of literature emphasizing evidence based clinical approach.
2. To provide an intensive overview of the state-of-the-art in implant dentistry
3. Provide live surgical and prosthetic demonstrations on patients.

4. To aid the participants in the preparation for the AAID Associate Fellow/Fellow membership examinations.

5. To help the participants develop clear solutions that fit the problems and its inherent conditions encountered in the pratice of implant dentistry, based upon information provided and clearly explicated reasoning.

6. To instill a deep sense of humility in each student that self-cautions them to treat only that for which they are surely prepared, and teaches them how to assess that preparedness.

I YEAR OF STUDY PROGRAM

<table>
<tr><td>Item code:
SFASSO11E</td><td colspan="3">Course Title: Module I</td></tr>
<tr><td>Cycle: academic specialist and master study</td><td>Year: I</td><td>Semester: I</td><td>Number of ECTS credits: 10</td></tr>
<tr><td colspan="2">Status: obligatory</td><td colspan="2">Total number of hours: 40
Lectures: 30
Exercises: 10</td></tr>
<tr><td>Teaching participants:</td><td colspan="3">Teachers and associates selected in the field to which the subject belongs / subject [do not enter names in this section. Leave the wording as indicated in this section]</td></tr>
<tr><td>Prerequisite for enrollment:</td><td colspan="3">Candidates with a Doctor of Dental Medicine/Doctor of Dentistry degree</td></tr>
<tr><td>Aim (objectives) of the course:</td><td colspan="3">- to illustrate applied anatomy of the maxillofacial region as it relates to implant dentistry
- to review the basics of gross anatomy through simulated dissection
- to teach regional anatomy with all the vital landmarks as it relates to diagnosis and surgical planning
- correlation of radiographic images with anatomical structures
- to teach an anatomic approach to local anesthesia of mandible and maxilla
- anatomical spaces of the head and neck
- anatomy of the maxillary sinus
- anatomy of nasal aperture and associated region
- to review fundamental pharmacological principles of drug absorption, half-lives, dosage and regimen of medications used in conjunction with dental implants
- to provide a practical review of drug interactions, indications, contraindications and alternative medications of drugs taken by patients, drugs prescribed for implant surgeries and systemic and local enhancing factors.</td></tr>
</table>

	- to elaborate on the risk factors associated with dental implants – patients on chemotherapy, smoking, systemic conditions that influence the outcome of the survival rates of dental implants - to teach principles of pathophysiology of pain and neuronal transmission - to be able to distinguish character, type, origin, theories of pain – e.g. Gate control theory of pain - to teach various types of infiltration, block anesthesia - Basics of sedation - to teach principles of pain management - to teach pharmacology of pain control - to teach concepts of passivity, corrosion, metallurgy and biomaterials - to elaborate on the influence of biomechanics, design features, configurations, factors of force, force transfer on the longevity of implants - to explain the various types of loads sustained by the prosthesis and the resultants fatigue induced into the implant/prosthesis unit
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	• Applied Anatomy in Implant Dentistry – Lectures • Pharmacology – Review Of Basic Pharmacokinetics and Pharmacodynamics (Case Example) • Physiology of Pain: Theory and Management • Medical Evaluation Review of Tests, values and evaluation of the medically compromised patients • Biomaterials and Biomechanics
Learning outcomes:	The student will be able to: 1. The participants will be able to apply the knowledge of anatomy to clinical situations during administration of anesthesia, trouble shoot during times when anesthesia fails to work, minimize complications of surgery, refine surgical approaches and other related surgical interventions 2. obtain a three dimensional relationship of the available bone and apply to configurations of dental implants 3. visualize the anatomy of the sinus and correlate with the radiographic information 4. appreciate the importance of careful surgical techniques to prevent violating vital structures 5. recognize variations and abnormal anatomical departures The student will be able to: - relate to the rationale of prescribing antibiotics, analgesics, anti-inflammatory medications - formulate and prescribe appropriate dosage and regimen for these medications

	- know about possible adverse effects, interactions, potentiation or attenuation of effects of prescribed medications - evaluate risk factors such as smoking, anti-coagulant therapy, drug allergies, agonist and antagonistic effects of medications. The students will be able to: understand the mechanism of pain generation and be able to appropriately prepare patients for pain control distinguish between, neuralgias, myofascial pain, odontogenic pain, neuropathies, dysestheia, paresthesia, etc.
Teaching methods:	Lectures, hands on, demonstration and case discussions
Assessment methods with assessment structure:	Quiz and evaluation though psychometric testing methodology
Literature:	Silverman BW. Medical Considerations for Dental Implant Placement. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 43-53

Item code: SFASSO12E	**Course Title: Module II**		
Cycle: academic specialist and master study	**Year: I**	**Semester: I**	**Number of ECTS credits:** 10
Status: obligatory		**Total number of hours: 60 (Online)** **Lectures: 60**	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a Doctor of Dental Medicine/Doctor of Dentistry degree		
Aim (objectives) of the course:	- to provide an overview of the discipline of implant dentistry as it relates to mainstream practice of dentistry. - to emphasize the necessity of considering implant dentistry as an adjunct to overall patient treatment planning rather than focusing on corporate driven concepts - review implant systems - to illustrate the end result of various cases that have been successfully treated - to provide basic reports of cases from simple predictable situations to varying advanced levels - display examples of significant changes in the quality of life produced through the benefits of implant dentistry - to help understand the diagnostic and treatment modalities necessary to properly treat patients requiring implant dentistry		

	- to meet the patient before meeting the mouth (determining the patient's needs, desires, motivations and goals). - to provide an organized approach to examination, taking records, patient evaluation, obtain appropriate tests and radiographs and formulate a clinical decision making tree (vertical treatment planning) - to recognize and incorporate an interdisciplinary approach to treatment planning. - to review the need for obtaining proper diagnostic casts, take face-bow transfer, jaw relation records to mount the casts, techniques of wax-ups and mock cast surgeries A central purpose is to foster analytic or critical thinking, which will also develop students' confidence and skill in dealing successfully with unanticipated issues under practical constraints for comprehensive treatment planning Through the presentation of case studies, they help students to learn multi-level concepts and their application in practical situations. Finally, the case method communicates the important value of good questions in situations where there are few single right answers.
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	• Introduction to Modern Implantology • Examples of Cases where the patients' needs and desires could not have been met without implants • Introduction to Treatment planning • Diagnosis And Treatment planning • Diagnostic Aids • Hands on model surgery by participants and suturing exercise • Practical teaching: Analysis of CBCT images, case planning - complete restorations and restorations with implant-prosthetic part, placement of incisions, suturing - individual work, consideration of practical application of drug therapy • Digital implant placement planning with coDiagnostiX • Implant placement – live surgery
Learning outcomes:	The students will be able to consider implant dentistry as proven mainstream dental therapy. Be able to identify the discipline as part of their scope of treatment They will be able to have a perspective early on in the course as to identify the various approaches that practitioners could take and have an overall understanding of the multimodal approach. This presentation will enable the participants to compare the present implants systems as they are being constantly modified and help them in deciding if there may be any validity in the changes. They will also understand that their practice would have to be patient centered rather than become a "one implant system" practice.

	- be able to clearly define a problem - develop clearly stated solutions that fit the problem and its inherent conditions, based upon information and clearly explicated reasoning The participants will be able: -to provide medical evaluation of implant patients -to diagnose and incorporate criteria for recognition of basic predictable cases as opposed to more complex forms of treatment -to understand the indication and contraindications for implant modalities and therapies - to learn how to determine whether they should treat or refer a case based on their degree of training and experience. - incorporate DeVans' axiom "preserve what remains rather than meticulously replace what is missing ". - will be able to consider comprehensive treatment planning The students will be able to relate the maxillary and mandibular diagnostic casts in an average or semi-adjustable articulator with proper orientation and centric records. They will be able to visualize the end result through wax ups, thereby identifying the deficiencies that need corrections.
Teaching methods:	Lectures, hands on, demonstration and case discussions
Assessment methods with assessment structure:	Quiz and evaluation though psychometric testing methodology
Literature:	Modern Implant Dentistry-Ed Silverman, Miron Quintessence Publishing, 2023\ Implant Therapy – Clinical Approaches and Evidence of Success, Ed. Nevins, Wong, Quintessence Publishing, second Ed. 2019

Item code: SFASSO13E	**Course Title: Module III**		
Cycle: academic specialist and master study	**Year: I**	**Semester: I**	**Number of ECTS credits:** 10
Status: obligatory		**Total number of hours: 40** **Lectures: 10** **Exercises: 30**	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a Doctor of Dental Medicine/Doctor of Dentistry degree		
Aim (objectives) of the course:	- to teach how to interpret various forms of radiographs including periapical, panoramic, CT and MRIs		

	- to discuss the advantages and disadvantages associated with each of them - evaluate and quantify available bone, identifying vital structures and mapping out possible implant sites - to teach application of implant planning software's (e.g. Simplant) - to teach principles of vertical treatment planning by creating a decision tree for implant modality selection, preferred choices etc. - to help organize the data gathered from the initial interview through to the wax up and creating the appropriate treatment plan that fulfills the patients needs and satisfies their wants. - to teach how to customize the treatment plan for every individual and not to generate a boiler plate protocol. - to review the salient features of some of the popular implant systems - the corporate influence in the practice of implant dentistry - review of literature about valid scientific evidence - to provide an overview of Evidence Based Dentistry - evaluate and verify if the results from one system can be extrapolated to another
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	• Advanced Diagnostic Radiographs – Periapicals, CT Scans, Tomograms • Developing Treatment Plans- Surgical Guides • Basics of grafts, atraumatic extractions and site development • Review of Current Implant Systems – Configurations, Surface Coatings, Treatments and Enhancements • Practical teaching - Analyzes of CBCT images of prepared patients • Surgical Session 1 – Basic implant surgeries individual, work on the patient, simpler cases – installation of up to 2 implants on one side, guided bone regeneration. • Completely Digital Workflow for Implant Restorations • Design of a surgical guide with titanium sleeves for guided implant placement. • Guided surgical procedure – live surgery
Learning outcomes:	The students will be able to: -prescribe the appropriate radiographs necessary for a given situation - make a preliminary determination of the available bone and have a basic understanding of the anatomic configuration of potential implant sites. -fabricate radiographic stents for CT scans and later on modify the same as a surgical stent The students will be able to:

	-integrate all the diagnostic information gathered from their patients and provide for a comprehensive treatment plan -provide for optimal plans and contingencies in the event that an ideal plan cannot be achieved -consider implant therapy as part of the overall treatment plan for patients -have a broad knowledge of the various commercially available implant systems -compare benefits and risks associated with each of the systems -evaluate manufacturers' claims of efficacy and safety in an analytical manner -to judiciously utilize features that claim rapid and better integration The students will be able to: -perform surgical setups and create a clean room environment for implant placement implement prosthetically driven surgeries -commence prosthetic phases during stage I surgery -identify and manage minor surgical complications plan for stage II surgeries to allow for esthetic integration of soft tissues -utilize esthetic and anatomic healing abutments, incorporate emergence profile, esthetic sculpting and apically reposition flaps to increase keratinized gingiva
Teaching methods:	Lectures, hands on, demonstration and case discussions
Assessment methods with assessment structure:	Quiz and evaluation though psychometric testing methodology
Literature:	Christos Angelopoulos. Diagnostic Imaging for Dental Implant Treatment. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 71-88.

Item code: **SFASSO14E**	Course Title: Module IV		
Cycle: academic specialist and master study	Year: I	Semester: II	Number of ECTS credits: 10
Status: obligatory		**Total number of hours: 40** **Lectures: 10** **Exercises: 30**	
Teaching participants:	Teachers and associates selected in the field to which the subject belongs / subject [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a Doctor of Dental Medicine/Doctor of Dentistry degree		

Aim (objectives) of the course:	- to teach the fundamentals of defect anatomy, wound stability and a review of alloplasts, allografts, autographs and xenografts - to review the graft healing principles and to elaborate on growth factors e.g. BMP -2, BMP -7, PDGF, TGfb, IGF, P-15 etc. - to review in-depth – autogenous bone grafts, corticocancellous, cortical, membranous, no vascularized, composite grafts - intra-oral and extra-oral graft sites - instrumentation – chisels, drills, trephines, frames and meshes etc. - procedures of harvesting – blocks, chips, slurry etc. - graft fixation techniques – screws, ligatures - tissue closure techniques - review patient interviewing and interactive case presentation - review the clinical setting of inserting dental implants - refresh the sterilization and clean room protocols - review radiographic and pre-surgical planning - review the implant insertion sequencing To provide an in depth live demonstration of the actual surgical sequencing and protocol for Sinus lift surgery
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	• Advanced Implant Surgeries Including Bone Grafting • Staging of cases and alternative designs and its uses • Advanced Bone considerations • Demonstration of sinus lift • Commencement of Prosthetic Phases during surgery – Immediate impression techniques, Immediate Load/function procedures etc • Nutrition • Implant Prosthodontics live • Practical teaching - Analyzes of CBCT images of prepared patients, • Surgical Session 2 - installation of multiple implants with guided bone regeneration as needed. • Immediate implant placement – live surgery • Immediate impression techniques, Immediate Load/function procedures • Socket preservation and grafting • Use of Platelet-Rich Fibrin in implant dentistry
Learning outcomes:	The students will be able to: -have an overall knowledge of the various graft materials, their composition, and their inductive and conductive properties - choose the appropriate graft materials for the situation indicated -familiarize the techniques of bone harvesting and learn the protocols for grafting -have a thorough knowledge of the graft healing sequence to predict maturation times, problem avoidance, problem solving and availability for loading.

	The learner will be able revise the clinical background knowledge that will be relevant when discussing the applied basic science course materials. The students will be able exposed to a second modality of dental implants They will have a broader depth of understanding regarding the rationale of utilizing the multimodal approach to implant dentistry. The student will be able to better understand the nature and validity of suggested treatment options
Teaching methods:	Lectures, hands on, demonstration and case discussions
Assessment methods with assessment structure:	Quiz and evaluation though psychometric testing methodology
Literature:	Silverman BW. A Predictable Method for Dental Implant Placement. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 160-169 Dean Licenblat. Immediate Implant Placement. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 170-183

Item code: SFASSO15E	**Course Title: Module V**		
Cycle: academic specialist and master study	**Year: I**	**Semester: II**	**Number of ECTS credits:** 10
Status: obligatory		**Total number of hours: 40** **Lectures: 20** **Exercises: 20**	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a Doctor of Dental Medicine/Doctor of Dentistry degree		
Aim (objectives) of the course:	To Teach the following: A. Evaluation of Patient expectations: Avoidance of removable prosthesis: Prosthesis stability Prosthesis retention Functional requirements placed upon prosthesis Predicting esthetic outcomes and satisfying esthetic expectations Creating an improvement in self confidence and self esteem Therapeutic/surgical concerns – short term success Long term prognoses		

	B. Evaluation of Contraindications: Prosthetic: Insufficient inter arch space, extreme jaw relationships etc. Surgical: Medical, anatomical etc. C. Prosthetic design considerations: Evaluation of structures to be replaced by prosthesis Esthetics – lip support, dento-gingival esthetics Phonetics Design for hygiene Soft tissue considerations Ridge laps and emergency profiles Opposing dentition Length of edentulous spans, AP spreads, cantilevers etc. Parafunctional habits etc. D. Control of biomechanical stress: Reduction of forces of occlusion: - narrowed occlusal table - minimal posterior cusp height - occlusal materials and design - occlusal schemes for implants - Distribution of forces of occlusion: a. number and size of implants used b. angulation of implants and offsets of prosthesis c. reduction of cantilevers E. Prosthesis design considerations for screw retained and cemented restorations F. Prosthetic complications: - Mechanical problems Excessively inclined implants - Difficulty in obtaining passivity of fit of prosthesis - Failure of prosthetic components - broken abutment screws, migrating interlocks etc. Loss of fixture integration G. Prosthesis design guidelines for different clinical situations: Protocols for Single tooth Protocols for quadrant restorations Protocols for removable prosthesis (overdentures and mucosal inserts) Protocols for immediate function Laboratory procedures in implant dentistry Completion of prosthetic rehabilitation of clinical cases Implant Periodontics and Esthetics

Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	• Prosthodontic Protocols – Presurgical, Provisional and Definitive • Laboratory procedures in implant dentistry • Completion of prosthetic rehabilitation of clinical cases (Live) • Implant Periodontics and Esthetics • Implant Prosthetics • Practical teaching • Prosthetic options in implant dentistry • Impression techniques for implant restorations • (Open tray technique and closed tray technique) • Intra-Oral Scanning – Digital Impressions for Implant Restorations (scanbody)
Learning outcomes:	After successfully completing the course, the student will have knowledge of: - the patient's expectations for implant prosthetic rehabilitation - functional and aesthetic outcomes of prosthetic work and meeting expectations, - assessment of prosthetic design taking into account all relevant factors, - laboratory procedures in implant prosthetics, - possible prosthetic complications and their elimination The student will have the skills to independently perform prosthetics on implants and solve possible complications The student will be trained to evaluate the quality and precision of prosthetic work on implants, taking into account all relevant factors
Teaching methods:	Lectures, hands on, demonstration and case discussions
Assessment methods with assessment structure:	Quiz and evaluation though psychometric testing methodology
Literature:	Allen Aptekar. Prosthetic Options in Implant Dentistry. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 252-258 Jack Piermatti. Prosthodontic Considerations for Full-Arch Restorations. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 259-271 Shankar Iyer. Abutment Selection and Prosthetic Options for Fixed Restorations. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs.272-290

Item code: SFASSO16E	**Course Title: Module VI**		
Cycle: academic specialist and master study	**Year: I**	**Semester: II**	**Number of ECTS credits:** 10
Status: obligatory		**Total number of hours: 40** **Lectures: 40**	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a Doctor of Dental Medicine/Doctor of Dentistry degree		
Aim (objectives) of the course:	Acquaintance with modern materials required for implant prosthetics Acquaintance with laboratory steps and work on the patient by prosthetic stages Overview of long-term planning and assessment of prosthetic work through clinical cases Recognition and management of complications through clinical examples Pathophysiology of implant complications – mechanical, biological, chemical and surgical Mastering the clinical steps in placing a definitive prosthesis Familiarity with proper documentation of cases, and how to present them at national and international symposia		
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	• Review of Lab steps and Insertion of prosthesis • Review of long term planning and assessing prosthetic designs (Live) • Identifying failures and managing complications - live • Pathophysiology of implant failures – Mechanical, Biolgical, Chemical and Surgical • Presenting cases and Patient management in Implant Dentistry • How to document cases and present at National and International symposia • Practical teaching • Cement-retained Implant Restorations and Screw-retained Implant Restorations • Prosthodontic considerations for full arch restorations • Implant overdenture		
Learning outcomes:	After successfully completing the course, the student will have knowledge of: - modern materials needed for implant prosthetics		

	-planning prosthesis on implants as well as other types of implant prosthetic works - laboratory steps in implanto-prosthetics and work on the patient according to prosthetic phases The student will possess the skills of independent long-term planning and assessment of prosthetic work, performing prosthetics on implants and solving possible complications. The student will be trained to independently place a definitive prosthesis, and properly document a clinical case with the possibility of presentation at national and international symposia.
Teaching methods:	Lectures, hands on, demonstration and case discussions
Assessment methods with assessment structure:	Quiz and evaluation though psychometric testing methodology
Literature:	Ramon Pons and Alberto Monje. Peri-Implants. Modern Implant Dentistry. Ed. Silverman and Miron. Quintessence Publishing 2023. Pgs. 338-352 Bach Le. Enchancing Peri-Implant Emergence Profile and Soft Tissue contours with GBR. Ed. Silverman and Miron. Quintessence Publishing 2023 Pgs. 353-365

II YEAR OF STUDY PROGRAM

Item code: SFASSO21E	**Course Title: MODULE I -** Applied and Surgical Anatomy for Implant Dentistry		
Cycle: academic specialist and master study	**Year: II**	**Semester: III**	**Number of ECTS credits:** 10
Status: obligatory		Total number of hours: 50 Lectures: 20 Exercises: 20 Seminar: 10	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a degree in oral surgery specialist, maxillofacial surgery specialist, academic specialist in dental implantology or candidates who have completed the first year of implantology studies through the Fellowship program sponsored by Smile USA Academy and Roseman School of Dentistry, Utah.		
Aim (objectives) of the course:	-To illustrate applied anatomy of the maxillofacial region as it relates to implant dentistry -To teach regional anatomy with all the vital landmarks as it relates to diagnosis and surgical planning -To Correlation of radiographic images with anatomic structures. -To Review local anesthetic techniques in the mandible and maxilla. -To explain space infection of the head and neck and contiguous structures -To review blood supply, venous, and lymphatic drainage and innervation of the oro-facial region		
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	- Anatomy of the maxillofacial region from an implantology point of view - Anatomy by region with all vital landmarks related to the diagnosis and planning of implant surgery - Correlation of radiographic images and anatomical structures - Techniques of local anesthesia - Infections of the maxillofacial region - Innervation zones, blood supply, venous and lymphatic drainage of the maxillofacial region - model surgery – hands-on - anatomy and associated structures – lectures - surgical anatomy – discussion		

Learning outcomes:	-Apply knowledge of anatomy to clinical situations during administration of anesthesia, trouble shoot during times when anesthesia fails to work, minimize complications of surgery, refine surgical approaches and other related surgical interventions -Visualize a three-dimensional relationship of the available bone and apply it to the choice of implant designs, configuration and dimensions -Appreciate the importance of careful surgical techniques to prevent violation of vital structures -Recognize variations and abnormal anatomical departures
Teaching methods:	Demonstrations, Lectures, and Hands-On
Assessment methods with assessment structure:	Quiz and Review
Literature:	Bari M. Logan, Patricia A. Reynolds, Ralph T. Hutchings. Published 2004. McMinn's Color Atlas of Head and Neck Anatom . 3rd Edition

Item code: SFASSO22E	**Course Title: MODULE II** - Sinus Lift/ Bone Graft		
Cycle: academic specialist and master study	**Year**: **II**	**Semester: III**	**Number of ECTS credits:** 10
Status: obligatory		Total number of hours: 50 Lectures: 20 Exercises: 20 Seminar: 10	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a degree in oral surgery specialist, maxillofacial surgery specialist, academic specialist in dental implantology or candidates who have completed the first year of implantology studies through the Fellowship program sponsored by Smile USA Academy and Roseman School of Dentistry, Utah.		
Aim (objectives) of the course:	To teach the following: -Sinus augmentation techniques -Ridge augmentation techniques and Ridge expansion -Alveolar ridge osseous distraction (AROD)		
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	- Sinus augmentation techniques - Ridge augmentation techniques - Ridge expansion techniques - Alveolar ridge osseous distraction (AROD) - Sinus grafting – Crestallift – lectures		

	- Sinus grafting – lateral lift – lectures - Patient hands on – Crestal and Sinus lifts - Ridge expansion and bone manipulation – hands on
Learning outcomes:	They will be able to perform the following: -Anatomy and physiology of the maxillary sinus -Lateral approach with grafting materials -Trans-crestal approach (indirect sinus floor augmentation) with grafting materials -AROD technique for partially edentulous patients -Identify possible complications
Teaching methods:	Demonstrations, Lectures, and Patient Procedures
Assessment methods with assessment structure:	Quiz and Review
Literature:	Fundamentals of Implant Dentistry Surgical Principles by Peter Moy, Alessandro Pozzi, John Beumer Ill The Sinus Bone Graft, Ole Jensen Bone Augmentation and Implant Dentistry, Michael Pikos

Item code: SFASSO23E	**Course Title: MODULE III -** Block grafts		
Cycle: academic specialist and master study	**Year: II**	**Semester: III**	**Number of ECTS credits:** 10
Status: obligatory		Total number of hours: 50 Lectures: 20 Exercises: 20 Seminar: 10	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a degree in oral surgery specialist, maxillofacial surgery specialist, academic specialist in dental implantology or candidates who have completed the first year of implantology studies through the Fellowship program sponsored by Smile USA Academy and Roseman School of Dentistry, Utah.		
Aim (objectives) of the course:	To teach the following: -Autogenous or Allograft bone blocks -Reconstruction of majority maxillary and mandibular defects with implants -Reconstruction of the severely resorbed maxilla		
Thematic units:(*If necessary, the performance plan is*	-Autogenous bone blocks		

determined by taking into account the specifics of organizational units)	-Allograft bone blocks -Reconstruction of larger defects of the maxilla with implants -Reconstruction of larger mandibular defects with implants -Reconstruction of a severely resorbed maxilla - Autogenous grafting – lectures and demonstrations - Khoury plates – lectures and demonstrations - Autogenous harvesting – hands on - Block graft allogenic – hands on – live patients
Learning outcomes:	They will be able to perform the following: -Vertical onlay grafts -Horizontal veneer grafts -Patient evaluation and Surgical procedures for resorbed mandible -Crestal onlay grafts -VSP- Assisted microvascular fibula-free flap reconstruction of maxillary defects
Teaching methods:	Demonstrations, Lectures, and Hands-On
Assessment methods with assessment structure:	Quiz and Review
Literature:	Hussein S. Basma. Modern Implant Dentistry. 2023. Vertical Ridge Augmentation

Item code: SFASSO24E	**Course Title: MODULE IV -** All on four		
Cycle: academic specialist and master study	**Year: II**	**Semester: IV**	**Number of ECTS credits:** 15
Status: obligatory		Total number of hours: 50 Lectures: 20 Exercises: 20 Seminar: 10	
Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	Candidates with a degree in oral surgery specialist, maxillofacial surgery specialist, academic specialist in dental implantology or candidates who have completed the first year of implantology studies through the Fellowship program sponsored by Smile USA Academy and Roseman School of Dentistry, Utah.		
Aim (objectives) of the course:	To teach the following: -Computer-guided planning and surgery -Absolute contraindication for a fully guided surgical approach -Surgical and prosthodontic workup for tilted implants		

Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	-Computer-guided planning in implantology -Contraindications for surgical procedure -Surgery for tilted implants -Prosthetic works for tilted implants - All on 4 – graftless solutions – lectures and demonstration - All on 4 – hands on – patient procedures - All on 4 – immediate conversion – hands on prosthetics - All on 4 – digital guided surgery – lectures and hands on exercises
Learning outcomes:	They will be able to perform the following: -Computer-guided workup, design, and fabrication of the surgical template -Design and fabrication of the surgical template -Surgical protocols for a fully guided approach -Surgical and prosthodontic workup for tilted implants
Teaching methods:	Demonstrations, Lectures, and Hands-On
Assessment methods with assessment structure:	Quiz and Review
Literature:	Chris Barret. Modern Implant Dentistry. 2023. Fundamentals of All On-X Treatment

Item code: SFASSO25E	**Course Title: MODULE V -** Zygomatic Implants		
Cycle: academic specialist and master study	**Year: II**	**Semester: IV**	**Number of ECTS credits:** 15
Status: obligatory		Total number of hours: 50 Lectures: 20 Exercises: 20 Seminar: 10	

Teaching participants:	**Teachers and associates selected in the field to which the subject belongs / subject** [do not enter names in this section. Leave the wording as indicated in this section]
Prerequisite for enrollment:	Candidates with a degree in oral surgery specialist, maxillofacial surgery specialist, academic specialist in dental implantology or candidates who have completed the first year of implantology studies through the Fellowship program sponsored by Smile USA Academy and Roseman School of Dentistry, Utah.
Aim (objectives) of the course:	To teach the following: -Clinical applications of zygomatic implants -Surgical workup and treatment planning for zygomatic implants -Large oncologic defects -Facial Prosthesis -Identifying patients with bone sites available anteriorly
Thematic units:(*If necessary, the performance plan is determined by taking into account the specifics of organizational units*)	-Clinical application of zygomatic implants -Surgical examination and treatment planning for zygomatic implants - Large oncological defects and facial prostheses - Identification of patients with anterior accessible bone sites - Zygomatic implants – lectures and hands on - Zygomatic and extramaxillary implants – demonstrations - Pterygoid implants – lectures and hands on - Patient procedures – one per participant – hands on.
Learning outcomes:	Will be able to perform the following: -Identify Implant site and design -Immediate loading of zygomatic implants -Guided surgery with zygomatic implants -Intra-sinus technique in conjunction with sinus grafting
Teaching methods:	Demonstrations, Lectures, and Hands-On
Assessment methods with assessment structure:	Quiz and Review
Literature:	Arun K. Garg. Quintessence publishing. 2023. Zygoma Implants Step by Step