Alvarez, Salvador, MD
Update on Infectious Diseases (Dental Stream)
General review of infectious diseases that can be encountered in a dental practice including HBV, HCV, HIV, TB, JC, and oral manifestations of systemic infections. We will also review the updated recommendations from the AHA for prevention of infective endocarditis and prosthetic joint infections during dental procedures.
- Describe opportunistic infections in the mouth in patients with HIV.
- Name the new recommendations of the AHA for prevention of IE.
- Identify recent changes in the epidemiology of TB, HBV, and HCV infections.

Amstutz, DDS, Jeffrey
Dental Training Models for International Consideration
This session will review dental training models currently in use and will discuss the potential of the models to help meet the dental need globally.
- List three dental training models.
- Describe the Dental Residency [+] program.
- Discuss the application of dental training models to various international locations.

Becker, DDS, Joseph
Class V Composite Restorations: Use of the “Contour Strip” for ease of restoration. Use of the Contour Strip for ease of restoration for class V restorations and composite veneers.
- Describe efficient ways to restore the human dentition with composite resin.
- Cite complex cosmetic problems with light cured composite.

Fiber Reinforced Resin Based Composite Dentistry
Use of bondable reinforcement fibers to create a fracture tough, durable restorations.
- Describe efficient ways to restore the human dentition with composite resin.
- Cite complex cosmetic problems with light cured composite.

Bowles, DDS, MDS, Ryan
Simple appliance fabrication for cross-bites, tongue habits, and thumb habits.
I will be giving a summary of how I treat cross-bites, tongue habits and thumb habits with a quad-helix appliance and then show how to bend these simple appliances and we will all fabricate one together in the lecture room.
- Identify malocclusion issues that are indicated for treatment with a Quad-helix appliance.
- List the steps involved with fabrication of this appliance.
- Understand how to treat malocclusions using this appliance.
- Fabricate a sample quad-helix appliance themselves.

Using and placing a 2 x 4 appliance for limited orthodontic treatment.
I will give a summary of some of the uses of a 2x4 appliance and give guidance on how to place brackets. Then we will spend most of our class time gluing brackets on the same maxillary cast we used before and tying in an arch.
- Identify malocclusion issues that are indicated for treatment with a 2x4 appliance.
- List the steps involved and considerations necessary for an effective bonding of this appliance.
- Understand how to treat malocclusions once this appliance is in place.
- Fabricate a sample 2x4 appliance themselves on models

Carr, DMD, Alan
Association of Systemic Conditions with Dental Implant Failures in 6,384 Patients During a 31-Year Follow-up Period.
Outcomes research has become an increasingly important form of clinical evidence for making health care decisions, including oral health considerations in the field of dentistry. In oral reconstruction involving dental implants, the risk of implant failure may be influenced by a patient’s underlying medical condition. Therefore, we aimed to identify associations between implant failure and systemic conditions or diseases in a consecutive series of patients who received dental implants from October 1, 1983, to December 31, 2014.
- Identify which chronic diseases impact dental implant failure.
- Cite whether patients with multiple chronic diseases are at increased risk of dental implant failure.

Association of Medication Use with Dental Implant Failures in Patients Treated Over a 31-Year Follow-up Period.
About half of all US adults in 2012 had one or more chronic health conditions, and one of four adults had two or more chronic health conditions. Given this prevalence, it is important to understand the potential impact of medication use on dental implant failure to better predict individual patient risk. This study evaluated associations between implant failure and medication use in the cohort of consecutive patients treated over a 31-year period.
- Identify medications that impact dental implant failure.
- Cite whether patients using multiple medications are at increased risk of dental implant failure.

RPDs In the Age of Dental Implants.
This presentation will suggest that patient perception is critical to consider when deciding between tooth replacement treatment options. Due to variable patient neuromuscular ‘skills’, post-insertion dynamics experienced by patients can vary based on the prosthesis choice. Recognizing this, there are strategies to consider when discussing treatment that can improve patient acceptance.

-Describe the most-to-least challenging tooth replacement prosthesis from a patient accommodation perspective.
-Discuss with patients how to consider prosthetic differences when deciding on a treatment option.

**Davis, DMD, James W.**

**The Periodontal Flap; Suturing**
The techniques for suturing of a periodontal flap around teeth and implants will be discussed. There will be an opportunity to utilize the suturing technique on models.

-Identify how to suture a periodontal flap around teeth.
-Describe how to select an appropriate suture material.

**The Periodontal Flap; Rational and Design**
The rational for a periodontal surgery and the design on a periodontal flap will be discussed.

-Identify the technique to effectively elevate a periodontal flap and the different type of flaps.
-Describe how to use a periodontal flap to access the root surfaces, bone and implant surfaces.

**Intraoral Scanning for Restoration of Implants**
Intraoral scanning can be used to obtain accurate digital impressions for the restoration of implants. The technology and techniques will be discussed.

-Identify how a scan can replace a traditional impression in the restoration of an implant.

**The Effects of Oral Disease on Systemic Health**
There is an increasing awareness of the detrimental effects of periodontal disease on overall health. The relationship of oral disease and heart disease, diabetes and pregnancy will be discussed.

-Discuss how oral disease affects the overall health of a patient.
-Describe how prevention and treatment of periodontal can benefit an individual’s health

**Haywood, DMD, Van**

**Smile Analysis Basics: Part 1**
Prior to initiating bleaching or any esthetic treatment, it is important for the dentist to examine and diagnose the overall esthetic condition of the patient. Performing a smile analysis includes an evaluation of how the teeth are positioned in the face and their relationship to the lips, as well as a tooth-by-tooth analysis.

-Perform a systematic evaluation of a patient’s smile to determine what issues need to be addressed for a satisfied patient.
-Determine whether tooth issues or periodontal issues may be required treatment for a harmonious smile.

**Smile Analysis Design: Part 2**
After the principles of smile analysis are considered, the dentist needs to be able to apply those principles in altering the patient’s smile by contouring or restorations. Elements of smile design will be applied to patient situations.

-Identify the appropriate treatment options for improving a patient’s smile.

**Occlusal Splint Therapy and Occlusal Adjustment**
Treatment of occlusal disease or dysfunction can consist of an occlusal adjustment of the teeth, or a bruxism splint to protect both the teeth and restorative care. The decision to use a semi-adjustable articulator, or a simple hinge is determined by the splint fabrication technique utilized. Several techniques and considerations will be presented.

-Identify predictable simple method for mounting casts and fabricating a maxillary occlusal bruxism splint, and compare this to other splint fabrication option.
-Define other methods for determining if a patient can wear a bruxism splint with a “boil and form” trial splint.

**Bleaching Single Dark Teeth**
Single dark teeth present a unique challenge to harmonize with adjacent teeth. Special tray design and treatment protocols will be shown for vital teeth. Endodontically-treated anterior teeth generally do not need a crown if discoloration is the only problem, so treatment information for internal bleaching and restoration of those teeth will be presented.

-Describe the appropriate external or internal bleaching treatment for a single dark tooth.
-Define the technique for bleaching a non-vital tooth internally.
-Discuss the special tray design for bleaching a dark tooth externally.

**Seven Tray Fabrication for Bleaching, Sensitivity Treatment and Caries Control: Traditional Vacuum Formed Plus Boil & Form Options**
The secret to effective bleaching is having a tray fabricated to hold the material in place. This presentation will review the classic custom bleaching tray technique with the variations to be considered as well as review the boil and form tray option made directly in the mouth, which works well with children and persons with orthodontic braces. Tray design options for single dark teeth, sensitivity treatment with tray application of potassium nitrate, and caries control in elderly patients will be addressed.

- Describe the technique and rationale for tray fabrication with the classic vacuum former and with boil & form trays.
- Cite the different options for tray designs, including those for single dark teeth, children and those made directly over orthodontic braces.
- Classify trays for treatment of sensitivity during bleaching, and for caries control in elderly patients.

Teaching with Technology
Classroom and small group teaching has evolved from the standard lecture, possibly with PowerPoint presentation, to more interactive methods to engage the student. The purpose of this lecture is to introduce alternative methods for delivering content using technology.

- Describe the preparation and application of an Audience Response System.
- Discuss the use of smart phone applications.
- Discuss the use of iPad or iPhone with Apple TV or HDMI connection.
- Describe how to convert a lecture into a tutorial.

Posterior Composite Matrix Band Techniques
To obtain a successful posterior composite restoration with proper proximal and occlusal contacts, as well as proper form and function, the matrix band, placement and finishing techniques must be carefully addressed. This presentation will explore the various options for matrix bands, with tips on placement and finishing the composite.

- Cite segmental matrix techniques and applications.
- Describe the use of the 12-blade scalpel on finishing composites.

New Caries Diagnosis Techniques and Sealant Placement
The diagnosis of caries has changed from the “explorer stick” to a visual scale because of fluoride on the hardness of enamel. Changes can result in under-diagnosis of caries, and resultant spread of caries before early intervention. A review of the ICDAS classifications and the proper placements techniques for sealants and preventive resins will be presented.

- Cite current ICDAS classification of caries and rationale for the change.
- Describe indications and techniques for sealants, including use of H2O2.
- Discuss preventive resins with flowable composites and cleaning burs.

Luper, DDS, William
Access for Endodontic Therapy
Creating access in the tooth is much more than just drilling a hole in the tooth. Access has very definitive guidelines that need to be followed to achieve optimum instrumentation of the canal system. These guidelines will be discussed, and the anatomy of each tooth will be discussed also.

- Describe the anatomy of each individual tooth.
- Discuss proper access for each individual tooth.
- Identify instruments needed to create proper access and describe how each is used.

Instrumentation of the Root Canal System
Instrumentation of the root canal system is just part of treatment of the tooth. Proper glide path management is crucial to success of treatment. Instrumentation techniques will be discussed which will provide for proper shaping and preservation of dentin. Reciprocation instrumentation using Waveone files will be discussed.

- Describe the importance of properly created glide paths.
- Discuss the Waveone file as an instrument to instrument the root canal system.
- Describe the rational for using reciprocation as a technique.

Use of Cone Beam Computed Tomography (CBCT) in Endodontics
This new technology of using Cone Beam Computed Tomography has allowed more accurate diagnosis for endodontic procedures. There will be multiple cases shown for each of the instances where CBCT is recommended.

- Discuss how CBCT works.
- List the different instances where CBCT is recommended.

Retreatment of the Root Canal
The body does not heal after root canal therapy in some instances. Reasons for the body not healing are numerous, and these reasons will be discussed. Methods of retreatment will be described, and success rate gone over.

- Discuss reasons that the body does not heal after original RCT.
- Describe techniques for retreatment of root canals.
- Cite success rates for retreatment of the root canal system.
McCracken, DDS, Michael  
**Basic Implant Placement Surgery**  
There are some primary principles that make placing implants easy. This course will describe some of the treatment planning and thought process necessary for placing implants in abundant bone.  
- Identify abundant bone.  
- Describe steps for predictable implant placement.  
- Cite relative contraindications for implant placement.  
- Label examples of implant placement.

**Implant Site Development and Grafting**  
This lecture will provide an overview of contemporary grafting techniques and materials. Simple grafting procedures such as socket grafting will be discussed, as well as more advanced treatments.  
- Cite materials available for bone grafting and site development.  
- Define anatomy of the atrophic jaw.  
- Define deficient sites that require augmentation prior to implant placement.

**Full-Arch Screw-Retained Implant Restorations**  
While they have been part of the dental vocabulary for 40 years, fixed complete dentures are still novel in the general dental community. This lecture will discuss what these are, how to make them, and how-to identity patients who would benefit from this treatment.  
- Identify patients who are candidates for the fixed complete denture.  
- Cite steps in fabricating this prosthesis.  
- Describe factors which lead to success with the fixed complete denture.

**Guided Implant Surgery**  
Using high-end technology such as cone beam CT and planning software, clinicians can use a surgical guide to place implants with tremendous precision and accuracy.  
- Discuss advantages of guided implant surgery.  
- Cite principles for choosing guided cases.  
- Identify examples of guided surgery.

**Drug Addiction in America**  
Unfortunately, drug dependence and addiction are hurting American society. A large source of abused medications is pain medication prescribed by dentists. This lecture will explore the impact of drugs on people through the lens of drug recovery programs.  
- Identify drugs that are highly abused.  
- Describe the warning signs associated with drug use.  
- Cite recent changes in Virginia state law regarding drug prescriptions.

Michelson, DDS, Joel  
**Managing Patients with An Exaggerated Gag Reflex**  
An exaggerated gag reflex can make dental treatment difficult for both the patient and dental practitioner. This session will examine the underlying physiological and psychological causes of an exaggerated gag reflex and present strategies to minimize their impact on dental treatment.  
- Describe the physiologic and psychologic causes of an exaggerated gag reflex.  
- Discuss pretreatment methods of management of patients with an exaggerated gag reflex.  
- Discuss clinical treatment modifications to improve outcomes in patients with an exaggerated gag reflex.

**Journal Reviews 1**  
This session will discuss how to critically read and evaluate current journal articles and their application to dental practice.  
- Assess the objectivity and evidence basis of current dental journal literature.  
- Discuss current articles using evidence based criteria.

**Journal Reviews 2**  
This session will discuss how to critically read and evaluate current journal articles and their application to dental practice.  
- Identify and present an analysis of the reliability of a current journal article.  
- Discuss clinical validity of journal articles presented.

Shah MS, Meh Vinod  
**Theology of Work and Vocation**
Why do some countries prosper, and others continue to remain subject to poverty?
Why do some countries remain relatively free from corruption while others never seem to be able to shake it off?
Is Sabbath rest necessary? How do we understand rest? Holidaying? Pursuing hobbies? Or is it doing something very different from our work?
Does the way we view work have something to do with all this?
This presentation looks at and attempts to answer some of the questions that I have raised above.
- Discuss work and rest and integrate the secular and sacred.
- Describe working vocationally.
- Identify an impact in the work place.

Stevens, MD David
Servant Leadership
If you look up the term “servant leadership” online, you will find that the phrase was coined by Robert K. Greenleaf in The Servant as Leader, an essay he first published in 1970. Today, the Greenleaf Institute states, “Servant leadership is a philosophy and set of practices that enriches the lives of individuals, builds better organizations and ultimately creates a more just and caring world.”
Servant leaders are not feared; instead, they are loved, respected and praised by their followers. Followers know that such a leader will willingly sacrifice themselves for the good of their followers and the mission of the group. Servant leaders know the true measure of success is building people, so they invest their lives in building others up. They spend time with their staff and influence them by modeling servanthood rather than just talking about it. Their actions match their words and those they lead aspire to be like them. This session will focus on how healthcare professionals can improve their “serve” in very practical ways.
- Define What Servant Leadership Is
- List the Key Characteristics of a Servant Leader
- Integrate Servanthood Principles into their Leadership Style

Templeton, DMD, R Bruce
Sleep Medicine: Considerations for the Dental Team
A presentation on pathophysiology, diagnosis and treatment modalities available for the treatment of sleep disordered breathing tailored for the dental team. This fast-growing area of practice lends itself well to collaboration with our medical colleagues to help many patients with obstructive sleep apnea.
- Describe sleep disorders and what disorders the dental team may be asked to help treat.
- Perform the necessary clinical exam elements for the assessment of this patient population.
- Discuss treatment modalities for obstructive sleep apnea and snoring.

Complications in Dentalveolar Surgery for the GP
A presentation focused on complications of dentalveolar surgery. The prevention of complications will be emphasized and the treatment of complications, if they do occur, will be presented. Designed for the general dental team.
- Describe the most common complications encountered when doing dentalveolar surgery.
- Delineate how to avoid these complications.
- Identify techniques to repair the results of complications while doing dentalveolar surgery.

Medical Emergencies in the Dental Clinic
Life threatening emergencies can occur anywhere at any time to anyone. We all need to be prepared always. Given an aging population that has many medical comorbidities and the possibility of stress in the dental clinic causing a medical emergency it is important for us to continually review our readiness to avoid medical emergencies and care for our patients should a life-threatening emergency occur.
- Describe those conditions and situations that can lead to life threatening emergencies in the dental clinic
- Define the components of a basic emergency kit for the dental clinic.
- Describe the treatment of a medical emergencies that may occur in dental clinics.

Cysts of the Jaws
Cysts occur more commonly in the jaws than any other bone. As dentists, we are well advised to review our knowledge of this subject on a regular basis.
- Describe the classification of cystic jaw lesions
- Discuss treatment modalities for jaw cysts.
- Identify those lesions that require long term follow up.

Tyndall, DDS, Don
Cone Beam CT: 3D Vision for Dentistry
3D imaging with cone beam computed tomography (CBCT) is the path to the future of dentistry for major improvements in radiographic diagnosis, treatment planning and digital dentistry. Ample research has shown that 2D imaging has reached the end of the road in terms of potential for improvements. CBCT technology has provided a low dose and relatively low cost means of providing 3D imaging of the maxillofacial region for dentistry and has the potential to become an essential component of a modern dental practice. This course is designed to familiarize each participant with the fundamentals of cone beam computed tomography technology, its radiation risks, legal requirements, and its many applications to dentistry.
Cite the basic technology of cone beam CT imaging and associated radiation risks.
-Identify the various attributes of CBCT units in the market place.
-Discuss the many applications of CBCT to dentistry.

Principles of Radiographic Interpretation
This course is designed to provide the participant with an understanding of the interpretive principles and terminology used in the systematic analysis of radiographic images for diseases of the jaws. In addition, time will be spent on recognizing and understanding the radiographic signs of oral and maxillofacial diseases including, but not limited to, benign and malignant tumors, cysts, fibro-osseous diseases, inflammation conditions and developmental and congenital anomalies of the dentition and jaws.

-Discuss the radiographic signs of developmental and acquired abnormalities of the maxillofacial region.
-Discuss the radiographic differences between benign and malignant conditions.
-Identify the radiographic differences between benign tumors and cysts.

Principles of Panoramic Imaging
The purpose of this presentation is to review the basic principles of panoramic imaging; how it works and what kind of errors can occur when imaging patients. Participants will be able to recognize common panoramic imaging errors and how to correct them.
-Identify the theoretical basis for panoramic image layers and their physical determinants.
-Discuss the basis for different horizontal and vertical magnification factors in panoramic images.
-Describe the production and characteristics of “ghost’s shadows”.
-Describe features of patient positioning errors.

Vinton, DDS Jeffrey
Dental Management of the Irradiated Head and Neck Cancer Patient
Guidelines for the care of the head and neck cancer patient will be discussed to include pre-irradiation considerations, long term side effects of radiation, recommendations for therapies during radiation and long-term management to decrease the incidence of osteoradionecrosis.

-Identify risk factors for the development of osteoradionecrosis.
-Understand the etiology of long term effects of radiation.
-Develop strategies for management of the irradiated patient.

Trigeminal Neuralgia, Diagnosis and Medical Management
The etiology, clinical findings, diagnosis and non-surgical management of trigeminal neuralgia will be presented.
-Identify those who may be afflicted with trigeminal neuralgia.
-Diagnose trigeminal neuralgia and eliminate other types of orofacial pain.
-Gain an understanding of medical management of trigeminal neuralgia.

Walker, MD, Bill
Biopsy of Oral Lesions - What Your Pathologist Expects from You and What You Should Expect of Your Pathologist
Accurate pathologic diagnosis requires close communication between the dentist/oral surgeon and their pathologist. Best practices of biopsy performance and submission of specimens will be discussed.

-Describe what information is important for your pathologist to have provided with the specimen.
-Understand the limitations of what pathology can diagnose and how to minimize these limitations.
-List some factors that pathologists wish all clinicians knew before they submitted specimens to them.

So, You Need Pathology Services and No Pathologist is Around - Now What?
Clinicians serving in remote locations in the developing world oftentimes do not have ready access to quality pathology services. We will discuss options for sending specimens out (in-country vs. overseas) as well as newer diagnostic options such as telepathology and tele cytology.

-Define your options for sending specimens out - in-country vs. overseas.
-Identify How International Pathology Services can be utilized for these needs.
-Discuss telepathology applications for needs in the developing world.

Common Pathology Specimens Seen in a Busy Community Hospital-Based Pathology Practice
This lecture will highlight the most common lesions submitted to pathology from dentists and oral surgeons in a busy community hospital-based practice. The importance of clinical-pathologic correlation will be emphasized in arriving at a correct diagnosis.

-List some of the most common lesions submitted to pathology by dentists and oral surgeons.
-List the most common cystic lesions submitted to pathology by dentists and oral surgeons.
-List the most common neoplasms (mucosal, odontogenic and salivary gland) submitted to pathology by dentists and oral surgeons.