

Course on Landscape Architecture and Site Planning-Basic Fundamentals

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Lecture 01

Module 1

Overview

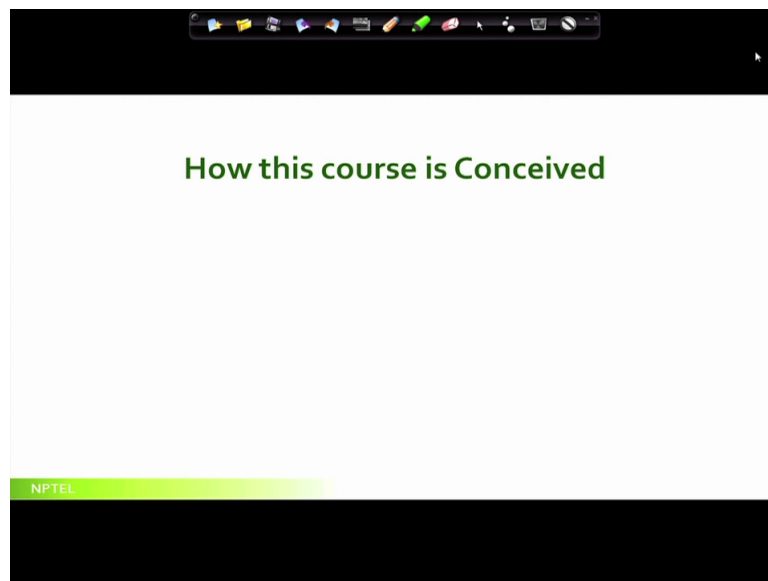
Good Morning, thank you thank you all for joining this course we have configured this course title Landscape Design and Site Planning based on a long experience over the last 32 years. I had been teaching this subject at under graduate level as a subject called Landscape Design and Site Planning and at the post graduate level as a subject called Landscape and Recreational Planning.

The body of knowledge that we have created we felt that it should be shared with all of you and thank you again for joining this. My experience says people have a very very sketchy idea about this particular course Landscape specially Landscape whenever I have talked to people tried to know that what is their perception about landscape I have seen people say that ok, plantation of some trees if there is any surface which is bare cover this with grass and put some pathways over it and make it accessible.

People think that is landscape there are others who think that if I do some bit of gardening in front of my house it is landscaping. Some people think if I do kitchen gardening behind my house that is also landscaping, in fact the landscape course is spanning over a large domain it is not so simple. To my (1:54) what I have found is architects they have made a very interesting, attractive presentations with trees marked as circles placed wherever it looks good on a piece of paper.

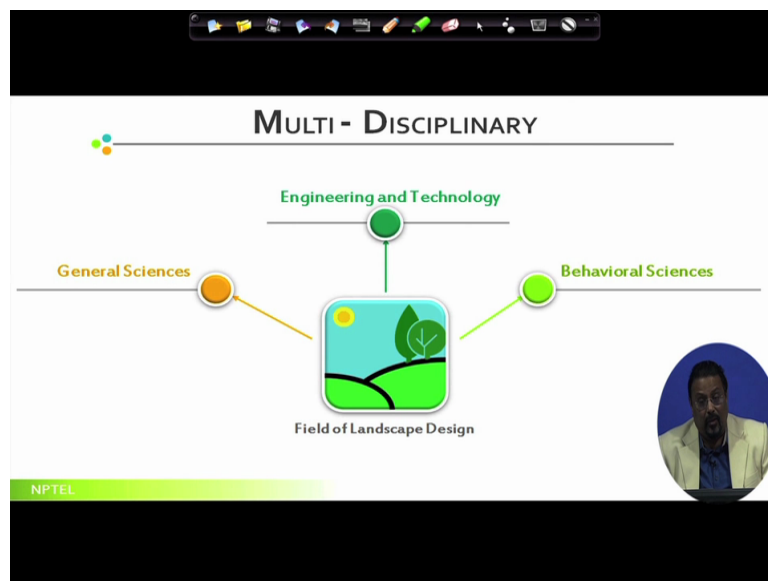
The point is that they have not really realized that how it is going to be placed on site, in reality when they will be placed on site there will be lot of restrictions in terms of constructions, in terms of dimensions, in terms of many other environmental factors all these makes the particular subject as very very complex.

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So it is not my dear friends do not think that this particular subject is a merely a pattern making game.

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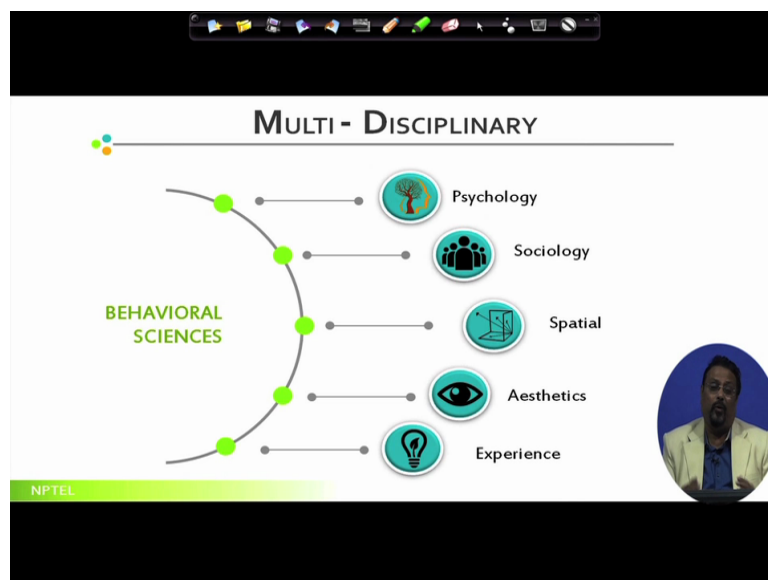
Let us see what are the scope in this, see it is basically a Multi-Disciplinary subject. Here we have certain sections as Behavioral Sciences, we also have another section which will cover General Sciences and another set which will cover Engineering and Technology. Now what will come under Behavioral Sciences, people will experience a landscape, they will enjoy, they will appreciate, they may criticize as well if it is not made up to their expectations. So everyone is Psychologically involved once they see a landscape.

We will come to the definition of landscape and how the landscape should be perceived later, first whatever is your perception just think that how you perceive the landscape. You enter a park, you see plantations, you like it or you may not like it. The plantations which you have seen might create shades for you which tree, which shrub, what type of grasses, which material, how you are using it all these are a matter of concern to you when you are really experiencing this that becomes Behavioral. If you enjoy the landscape it is behaviorally positive resulted, if you do not enjoy it is behaviorally negatively resulted.

What comes the General Science if you enter a park you will find there are lots of plantations, there are water bodies, there are sands, there are lights, there are shadows all these will be concerning General Sciences. So landscape cannot be (())(4:30) of whether people like it or dislike it, whether they felt comfortable or do not or whether the light is coming, plant is growing or plant is dying.

So naturally the entire system will have these two but when it comes to the execution of the entire landscape then Engineering and Technology will come in. In the absence of Engineering and Technology rather I would say in the absence of proper or appropriate Engineering and Technology no landscape can be perfect.

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Let us see in the Behavioral Sciences there are multiple aspects which comes under this, quite often I have heard asked by students Sir who are all involved in this entire landscape process, I have found that it is really a very widely multi-disciplinary field. There are several people who are involved in it just you will get an idea once I run through this one by one let us say

behavioral sciences Psychology you like the landscape, you want the landscape, you enjoy the landscape and you retrieve or go back to the same landscape once again being attracted all these are a matter of Psychology. I would say Psychologist who are dealing with these reactions they are very much involved in this.

Sociology a park which is being visited by different age groups whether it is from toddlers to the grannies or grandparents, mothers, fathers, with brothers, with friends whoever that becomes a hub for Sociological communications, interactions. So it is very very essential that Sociology becomes an integral part of this landscape.

Spatial the space, how it is works, what is the shape of it, what is the size of it, what is the dimension of it, what is the volume of it and there are multiple components within it all these becomes very very critical in this. We will discuss all these issues with detail in different parts of it in due course of time here I am just trying to give you an overview of this.

Aesthetics looks good what is the Aesthetics Aesthetics is basically a state of mind when you enjoy something. If you are not in that particular state of mind then Aesthetics does not play any role in it you like it, you have entered, you enjoyed. That means you are Aesthetically you are enjoying it, anything that you create anything in the world that exists in front of our eyes definitely have some bit of Aesthetic or Aesthetic appeal or maybe negative Aesthetic appeal so Aesthetics. So people who are dealing with beauty, people who are dealing with creations, people who are dealing with creativity they are all involved in this.

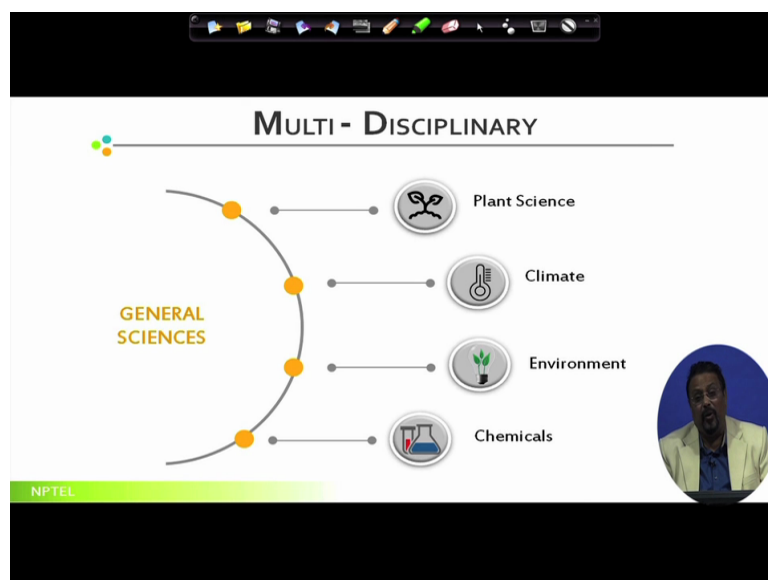
And finally in terms of behavioral thing Experience you see a landscape, you enjoy it finally what is your experience if it is good you go back, if it is not good you reject. The point is the whole landscape projects which we create we the landscape architects whether we call landscape designers or landscape architects whatever we do create ultimately it is for whom, it is for people. If there is not a single user in any of these areas that landscape has no real meaning.

Ofcourse nature has created it, nature has created this particular landscape endure to us free given to us whether we can explore or enjoy that, that is on us. So here what happens is finally the experience matters the most it is because of which people go go back to some other tourism spots very frequently. People prefer one tourism spot over another, people prefer one landscape garden over another, people prefer one tree over another that means it all

depends on finally what is the outcome what is the take away to the users, if the users are not there then it is meaningless.

Now the question is who are the users of course we will say we the human being we are the users is it is it true you enter a park, you see a bird the bird who is having a nest in a tree and you are enjoying the beauty of the tree along with the birds, birds has no business other than his residence but you have a business to see a bird, do not you feel excited when you see very rare birds, colorful birds playing in that area and ultimately chirping, making a wonderful background sound and you enjoy and you say it is wonderful means overall experience what you gain out of this is one of the very very important thing.

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Let us see what is in General Sciences, Plant Science one of the most important scientific matters that we deal with in all landscape subject. You know why because landscape it covers a large domain of course it has a different scale I will discuss it later scale wise but the thing is generally when we see a landscape is a large outdoor open area when we see this majority of those areas are covered with plants, plants of various types, plants of various scales.

So naturally the Plant Science becomes the most important here comes some conflict in terms of perception, people say who are the Botanist they are the best landscape designer. Horticulture say no we are the best landscape designer, the agriculture people say no no we are the plant scientist who are dealing with the tissue cultures and others they say no we are most important, point is let us not fight is not not at all proper because Plant Science is one of

the component of the entire landscape. When you go through the entire course then you will realize that how wide the domain of this landscape is.

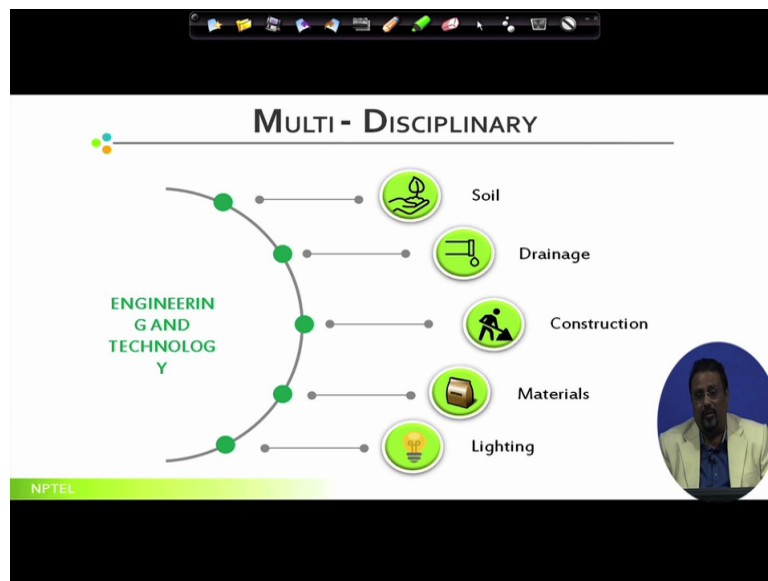
Next the climate, the Plants will grow plant has if the plant has to grow then there has to be rain because it has to supply water. It also has to have radiations that means the sunrays have to fall on it, it has to have winds flowing sometimes even winds flowing in a very high speed becomes detrimental to the landscape. So climate plays a very very important role in this.

Another thing is look at this, in a very hot summer you are sweating and then you look at a tree and then you try to take shelter below that and feel very very comfortable that means you are environmental, climate logical, microclimate logical all aspects are very very (11:22). It makes it very wide domain is in it it does.

Then the Environment, what is Environment Environment is totality whatever you have you define a domain and whatever is condition at that point of time is the Environment and that particular Environment it is good or bad, whether it is polluted or clean, whether it is enjoyable or not enjoyable all these are matter of decisions that you take based on the criteria. There are multiple criteria based on which we can evaluate the Environment but however the Environment. The Environmental scientist, the Environmental Engineers everybody has a role to play in this.

Then chemicals how can chemical comes to the landscape, it is a nutrient for the plants which is required, it is a pollution that is causing decay or death to the plants because of the all the emissions coming from the nearby industries or some other places so it matters. But however chemicals plays a very important role when it comes to the nutrients, fertilizers and all, ok.

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Then Engineering and Technology, in this let us see it is basically see what it is dealing with this soil. How soil is coming under the Engineering and Technology. The entire landscape is spread over the surface of the earth, the crust of the earth ones it is spread over this crust of the earth naturally its profile, its stability, its condition, its physical chemical and other conditions everything will matter. So they come under the Engineering Sciences and how we deal with this in terms of ground modeling they will come under this soil.

Drainage, the area which is highly exposed to the rain water even highly exposed to the storm water which is coming from other sites to the sites of the landscape or even the bit of due that has been formed by the trees or the fog that has informed by the climate which will add bit by bit to the precipitation level or the water content or the humidity content of that particular area.

However small it is you will feel that if you see spread your hand in a due formed area then you will find there will be a thin layer of water if it is on your palm the whatever amount of water just you think the entire radius now going to have that water that particular water is now going to cause a concern of drainage so it comes. When the project becomes too large the landscape project becomes too large when there are streams, there are you know canals, there are rivers, there are oceans, there are estuaries that we do consider drainage becomes although more critical, highly technical highly engineering oriented.

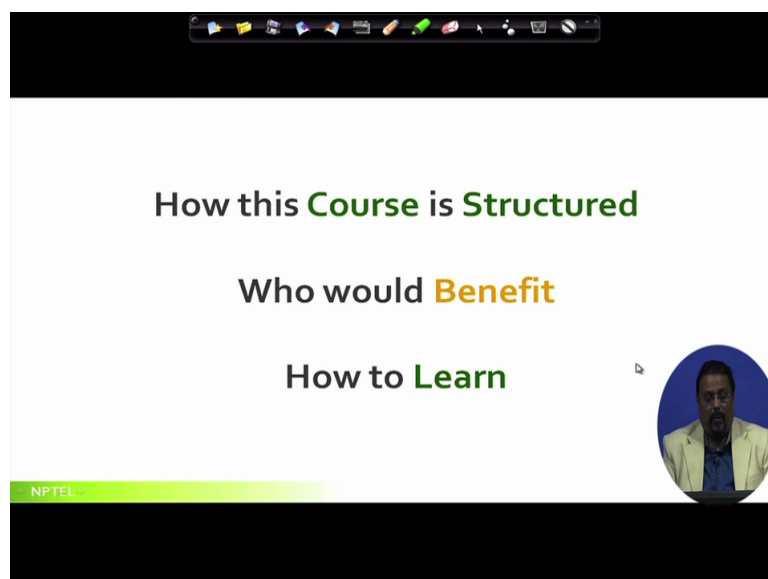
Then comes construction all said and done everything has to be constructed because we are creating it, we are creating something new. When I will come to the categorization of this you

will see that I will deal with this in a different prospective but here landscape if you are saying that we are designing something naturally it has to be constructed and if the landscape has to be constructed its entire construction engineering technological aspects, all its implements, all its machineries everything will come under this (14:46) so how come it is not multidisciplinary.

Then comes material, where we consider plant as one of the strong material ok plant means vegetation of different forms we consider this as a bulk material because it covers a large area but mind it the pathway, the railing or the fences, the seats and benches, the lamp post everything will matter. The pathway even over the pathway there are multiple materials that you can use for the pathway whether it is paved with bricks, whether it is concrete, whether it is copal, whether it is pebble, whether it is sand, whether it is logs everything matters. So here material will become very very important.

Lighting, we always presume that the landscape is going to be experience in the daylight not necessary there are several landscape projects where you really see a different kind of ambiance in the light and I would always suggest that if you really want to enjoy landscape you see that in different seasons, see that in different time of the day then you will really realize how good the entire landscape is, so that makes the entire subject very multidisciplinary.

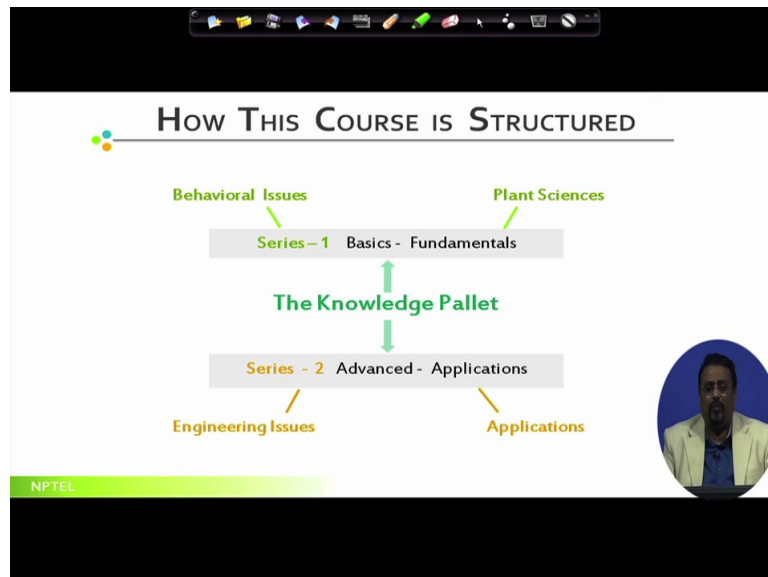
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And the question is ok this is I am trying to give you an overview that what landscape is I will come to the definition of it but how this Course is Structured let me give you some idea

about it. Also I have to give you some idea about who would benefit you have registered but the thing is you have registered with some objective, ok you want to learn this particular subject is it beneficial to you how would it benefit I will clear it all. How to learn, ok the thing is let us go ahead with this.

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The structure what we have done is we have split the entire domain of knowledge to two parts because it is a vast body of knowledge and it really justice cannot be done with very short duration of courses. So what you have done is entire knowledge pallet we have decided into two parts, series 1 we call which will be dealing with basics and fundamentals and the series 2 we are calling which is going to deal with the advanced applications of this.

First we have to understand that how a landscape is created and then how it can be applied in different areas. So when it comes to this the series 1 will be mainly dealing with the Behavioral Issues and the Plant Sciences. And the series 2 will deal with the Engineering issues and the applications, series 2 will be offering later in future at this moment our domain of discussion will be focused within this series 1.

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HOW THIS COURSE IS STRUCTURED

Series - 1 Basic – Fundamentals (8 week)

- Week - 1** Overview, Categories of Landscape, Materials, Purpose, Scope
- Week - 2** Classical Historical Landscape Styles : Oriental
- Week - 3** Classical Historical Landscape Styles : European
- Week - 4** User Related Issues
- Week - 5** Planting Design : Physiology, Anatomy, Form, Propagation
- Week - 6** Plant Characteristics for Landscape Application
- Week - 7** Planting Support Systems and Maintenance
- Week - 8** Site Investigation, Analyses, Appraisal

Series - 2 Advanced Application (12 week - to be offered in Future)

Ground Modelling, Drainage, Irrigation, Construction Details, Furniture, Avenue, Highway, Indoor, Terrace, Large Complex, Park, Forest, Brownfield, Waterfront, Bonsai, Aquatic garden, Rock garden, Aromatic & Herbal Landscape

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Series 1 will have eight weeks lecture each week will be of 12 half hours duration as you already know. The first which we have started with is dealing with the overview. So I am giving you the overview, then I will discuss about the categories of landscape, then I will discuss about the materials, purpose, scopes so that whoever takes this particular subject can really handle this in ones own way.

Week 2 will be dealing with Classical Historical Landscape Styles and also 3 will be dealing with Classical Historical Landscape Styles but since there are so many very very important landscape styles we call this classical because it has become almost a sort of synonymous with such kind of styles, with such kind of locations historically. So they need to be divided into two parts we have two parts try to divide in two parts oriental and European ofcourse we will also be dealing with will give some overview when we will be discussing this how they are being used in our current scenarios or the contemporary situations. So up to week 3 we will be dealing with historic landscape style.

In week 4 we will go deep into the User Related Issues, you remember I have discussed about the Behavioral Issues those will be dealing with it and there are so many things to learn you will see at some time you might think that are they really important but you will realize yes it is important and example let me give you another I always like to give this example visiting a zoo, zoological garden you enter is it really true that you always go there to see only the animal and is it alright that if suppose I put all the animal in the cages and you go and see zoo, no. You want to see this the animals in their own conditions, so animals in the own

conditions means forest or natural conditions, the moment the natural conditions come rocks, water body, forest everything will come in.

So what happens is the best possible zoos are designed in such a way that when you enter you think that you have entered into a forest because here the users are not only you who is a visitor paid some money for the tickets but here the users are the people who are maintaining it, also the uses of the animals who were residing in that particular area. So User Related Issues are very very important thing we will deal with in.

In week 5, we will be discussing about the Planting Design we will straight away go to the Planting Design first the reason is that since our common perception is that ok Plantation means landscape, trees means landscape, a flowery garden means a landscape. So you will think yes this is important, so we will cover this because we have a lot of things to cover in this.

Week 6, in which the Plant Characteristics for Application of the Landscape we will deal with in. In week 7 we will be dealing with all Planting Support System and Maintenance, this is very important you plant a tree you must have experienced yourself that during this season when you are planting a tree you have to take so much of care if you do not take care, if you do not think about its nutrition, if you do not think about its water requirement, if you do not think about covering or allowing the light to fall on this the plants will not grow rather it will not survive. So this is the domain where Planting Support System and Maintenance will be dealing with.

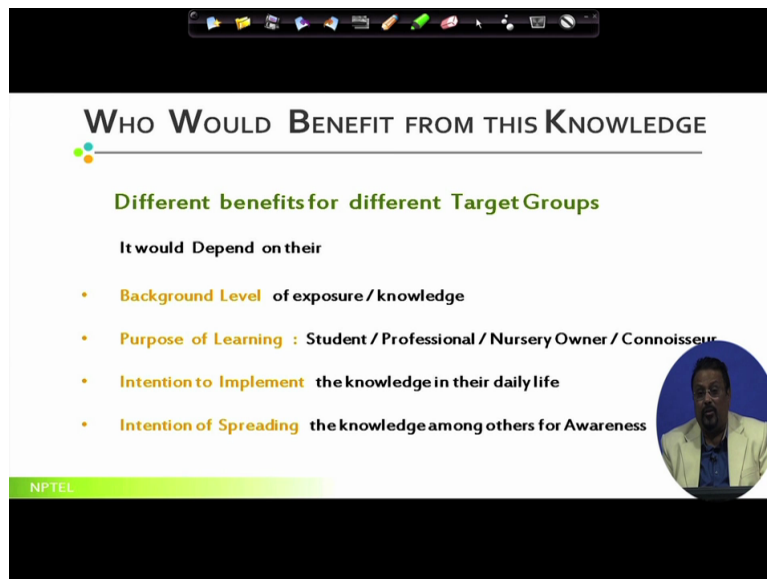
Then in the last week of this particular course or this particular module I will be dealing with Site Investigation Analysis and Appraisal because whatever you design the Site Investigation almost will be you know preceding the design actions and many of the design actions will evolve from this we will go into this in detail.

And what lies in the second series here which will be another 12 week which will be offering later in future. First I will very much appreciate if you learn this session series 1 and give us a feedback and have your quires made your all fundamentals clear then you will find there are many more issues which you will be discussing in which different are the aspects like how to do the ground modeling, how to play on the (design) drainage design, how to make the irrigation planning and what are the different construction details that is involved in the landscape, what are the furnitures coming in, what should be the design, what should be the

material, how avenue should be landscape, how the highway can be landscape and how a terrace can be landscape, how the indoor can be landscape everything.

Then large complexes, housing, commercial complexes, parks, forest, brownfields, waterfronts then we will go into the detail like bonsai planning, aquatic garden, rock garden, aromatic and herbal landscape all these will be coming under the scope of series 2. So here at this moment we are in the series 1.

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WHO WOULD BENEFIT FROM THIS KNOWLEDGE

Different benefits for different Target Groups

It would Depend on their

- **Background Level** of exposure / knowledge
- **Purpose of Learning** : Student / Professional / Nursery Owner / Connoisseur
- **Intention to Implement** the knowledge in their daily life
- **Intention of Spreading** the knowledge among others for Awareness

NPTEL

Next question is who would benefit from this course. You know we would say the different benefits are for different target groups. It all depends that which target group you belong if you are a student. Let us say it depends on your background level or exposure, knowledge if you are a student studying architecture you would love to learn this particular subject as a course of study because no architecture courses are offered in this country I am sure where landscape is not thought but I will tell you the landscape is not being thought in all Institutions in the same way.

Because different teachers have their different exposures, different perceptions so naturally what happens is that they try to frame this course as they feel fit perfect there is no issue about it only thing is that if you are trying to learn the entirety I am sure even one semester course does not give enough opportunity for this particular course.

So here I feel that if you attain this course and carry on with this your exposure will be quite wide. So it is a students, if you are student you will be highly benefited even I would say if you are a teacher in a school of architecture you will be benefited because many things will

be exposing here which you also probably might have missed or in case you have not missed probably it will enrich your further knowledge and I will be very happy if suppose we get the feedback from you and then you continue with this because finally our intension is that this entire body of knowledge should be disseminated to the people.

First is the background level of your exposure or knowledge there could be experts. Then purpose of learning with the student or a professional or nursery owner or connoisseur let us come to this, ok. As a student as I said, look at the professional if you are a professional architect or professional engineer and you have got a scope of designing a landscape for a particular project.

In such cases naturally your first attempt would be to fall back on whatever knowledge you have. We are sure that if you go through this entire process of this body of knowledge you will be exposed to all aspects of the landscaping so that professionally you can undertake this project and you can deliver and you can deliver to the full extent.

Nursery owners, these nursery owners are the people who are highly responsible for giving us the right plants when they will give us the right plants basically they will be responsible for going those plants the way it should be and the health of those plants will be at the hand of the nursery owners. So they are also important so they can also learn through this particular subject because most often what they do is the nursery owners I have communicated with many. I have found that they are more concerned about how to how to grow the plants, how to germinate from the seeds and how to make it to the saplings and how to sell it to the market, to the people, to the houses or to the landscape projects and then how this should be kept healthy that is their domain.

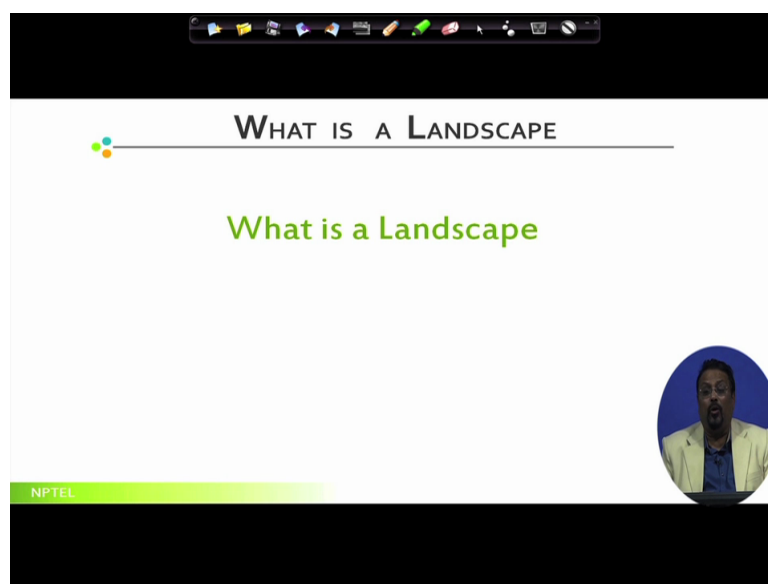
Here if they have the full idea about the entire landscape process landscape designing process or their scopes then naturally there will be more concern about how to take care of the plants which they are growing. The connoisseurs who are this connoisseurs who loves landscape and I am sure everybody loves landscape. I have never found anybody who said no no no I do not like landscape no, I do not like to see the tree, I do not like to walk on the grass, I do not like to see the flowers no.

Connoisseurs are the people who like more than our common people we all like it but the connoisseurs are a person you will find in somebodies garden somebody just cooping out sometime of his and trying to do a little bit of plantations with a pot. He is not expert but he is

connoisseur, he is trying to know how to do it. I have seen people a professor who turned out to be a connoisseur bonsai grower. I have seen person an engineer, who ultimately became a bonsai expert in the world we will discuss this we will expose them to you in future.

Another group intention to implement the knowledge in the daily life if suppose you are a family person and you want to implement this knowledge into your daily life it will be very very useful. And then intention of spreading the knowledge among others for awareness, that means you make people aware, you make the children aware, you make the people who are destroying the nature or destroying the landscape aware.

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So I have given you an overview of this now I will go into detail and explain to you what a landscape is, it is a very interesting domain we are entering into and we will be discussing this in detail thank you for joining.